

**ASSESSMENT OF INTERPERSONAL COMMUNICATION SKILLS
OF INTERN DOCTORS**

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ABSTRACT

Communication skills are important qualities in the behaviour of a doctor and are essential to all aspect of health care, from history taking to providing information to the patients. The purpose of this study was to examine the actual level of interpersonal communication skills of the intern doctors. Ten Intern doctors comprising 25 % of the total number who were undergoing compulsory rotatory internship at T.U. Teaching Hospital, Institute of medicine, Kathmandu were included as sample population. They were required to conduct four interviews with patients coming to the out patient department of Internal Medicine. All the interviews were video-recorded. Two trained staff members scored the video recorded interviews independently using the MAAS-Global Scoring List. Inter rater correlation was established before hand and was satisfactory ($p < .05$). Mean scores for different communication skills were: Introduction 3.67; management 3.5; Evaluation of consultation 2.91; exploration 3.26; emotion 0.98; Information-sharing 3.5; Summarization 2.19; ordering 3.34, and flexibility 3.74 on 0-6 Likert scale. All the mean score values are less than satisfactory. This base line study of intern doctors shows that over all our intern doctors are deficient in almost all the components of interpersonal communication skills. A communication skills training course in undergraduate medical education could improve the existing situation in Nepal.

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1. INTRODUCTION:

1.1 INTERPERSONAL COMMUNICATION SKILLS- AN OVERVIEW:

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 illness. Instructions in this area usually leans 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 comprise 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.

The definition and categorization of the broad components of communication skills are based on some authors concepts and rational, applied to either their professional experiences or academic levels. It is important to highlight that these numerous channels of interpersonal communication skills, here exemplified, are inextricably linked and can not be considered in an isolated form.

For instance, Kurtz, Silverman and Draper (1998) addressed 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 the gathered and given and also the treatment to be discussed. Process skills are based on the way the professional communicates with the patients. Examples are: How to take a history or provide information, the use of verbal and non-verbal skills, how to develop the relationship and the way the communication should be organized and structured. Finally perceptual skills, are connect to the awareness of feelings and thoughts about the patients, self-concept and confidence, attitude and intentions.

Roter, Hall and Katz (1988) summarized, 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), 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 affective 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) and 6. Partnership building – includes exchanges of two kinds, those of which the professional facilitates patient participation and those which reflect the professional's role as an interpreter and synthesizer (asks for patient opinion, understanding, suggestion, requests questions, makes interpretation, reflects patient's statement, makes acknowledgement).

1.2 HISTORY OF MEDICAL EDUCATION IN NEPAL:

In the first half of the twentieth century, most of the Nepalese health personnel were trained outside the country. Health manpower education started in Nepal with the formation of Nepal Rajakiya Ayurved Vidyalyaya in 1933-34 for training of baidyas and other categories of ayurvedic personnel (Dixit. H.1999) Training for compounders and dressers also started in 1934 in the newly opened civil medical school. Health services in the pre world war II Nepal were minimal and confined to some of the bigger towns. Almost all of these were manned by expatriate doctors, mainly from India (Dixit. H. 1999).

In 1962, An auxiliary health worker (AHW) school was started under the aegis of the Ministry of Health (MoH). Other institutions for the production of these and other categories came to be established during the course of subsequent years. The idea of starting of medical school in Nepal had been first suggested in 1963 by a WHO Assignment Team. Accordingly, a medical school was planned to be constructed during the course of the then current Five year plan. Institute of medicine (IOM) was established in 1972. Soon after it's

establishment, the IOM in an effort to make health personal education more widespread, started campuses for different grades of health workers in various part of the country. Besides the training program for AHW and ANM health workers, which the IOM conducted for the MoH. It initially offered six certificate level programme at the central campus in Maharajgunj, Kathmandu. The intention was to produce categories of middle level of medical manpower who could work in the field for specified period of time and then be given opportunity to go on to become community oriented physicians (Dixit H. 1999).

The concept of the basic community oriented doctor has been with the IOM since the course was started in 1978 and the first batch came out in 1984 (Dixit H. 1999). The initial five batches into the MBBS course were candidates who were middle levels health workers (HA), the subsequent entrants have been of two groups viz those who have an I.Sc. and those who have a health workers background. However, as from 1999 there will no longer be candidates who have worked in the health sector as middle level Health workers, prior to taking up the study of medicine.

Even in those early years (1980), there was interest by various groups from outside of Nepal to set up medical college. Bearing in mind the fact that the MBBS course of the IOM had just started, the Nepalese authorities were not keen to allow such efforts. Then it was only in ninties, after a laps of may years that it was decided to set up B.P. Koirala Institute of Health Sciences at Dharan. At about this time the idea was mooted that having private medical colleges will not only bring about a boost in the economy but that a good service sector could be created in the health field. Thus different medical college came in to being. Presently there are nine medical schools, out of which two are government controlled, the Institute of Medicine being the pioneer one. Methods of instructions are traditional in almost all the curriculum of different medical schools. Non of them have communication skills training program in their curriculum.

1.3 CURRICULUM FOR MBBS: INSTITUTE OF MEDICINE:

This curriculum of the MBBS degree of IOM, T.U. (IOM curriculum for M.B.B.S, 1994) incorporates the philosophy by which the medical doctors on completion of five and a half years of undergraduate medical programme will be competent to carry out the clinical, preventive, promotive and administrative roles as recommended by HMG of Nepal. This curriculum is community oriented, has integrated teaching learning activities and encourages problem based learning.

According to this curriculum, medical students are exposed for history taking skill exercises during the first year of their medical school. Specific objectives in clinical history taking skill are:

Students will be able to ask patients about:

- age, religion, address and occupation;
- Presenting symptoms in chronological order;
- History of present illness stating duration, mode of onset, aggravating or relieving factors, association with other symptoms and with drugs if already taken; details of past illness;
- Family history including diabetes mellitus, hypertension, heart diseases and tuberculosis;
- Details of marriage, family structure, diet, smoking habit, alcohol intake, housing and environmental sanitation.

2. REVIEW OF LITERATURE:

2.1 THE TRADITIONAL METHOD OF HISTORY TAKING:

In more traditional medical education, medical students take a patient's medical history by asking a series of sequenced, routine questions, covering presenting medical problem(s); medical history; social and personal history; systemic review and physical examination. This approach known as clinical methods (Roter 1983), involves the students taking the patient's history in a highly structured interview, asking a set series of questions in a sequential fashion to ensure they cover all possible topics from the list to be covered (Evans 1990). To make sense of data collected from the patients in this way, the students employ an inductive problem-solving paradigm to diagnose the patient's presenting illness (Metcalf 1983; Evans et al., 1991). This clinical method provides the basis for teaching a standardized history taking procedure.

Researchers have suggested that students trained using the traditional history taking format develop diagnostic skills and show a progressive improvement in their ability to focus on patient's pathophysiological complaints and elicit medically relevant information. However, this focus on physiological aspect of medicine is usually accompanied by an unwillingness or inability to explore psychological and social concerns which impact on patient's illness states, illness reactions (Flaherty, 1985; Preven, 1986; Stewart and Roter 1989). Studies of medical student's interaction skills showed that, early in their early clinical days, many students displayed an interest in talking with patient's and showed some skills in facilitating communication and asking appropriate questions. By the time the student's had reached their final year of training, however, they focused intently on diagnostic information, to the apparent exclusion of concern and empathy for the patients (Barbee and Feldman 1970; Preven et al., 1986; Stewart and Roter 1989).

The inherent notion in the traditional history taking procedure is to obtain all the data before attempting a diagnosis. In medical practice, however, practitioners more generally use a hypothetico-deductive, problem solving routine, actively formulating hypotheses early in the medical interaction and rejecting or defining these hypotheses as the consultation progresses (Metcalf 1983; Flaherty 1985). As students become more medically competent, they too adopt this hypothetico-deductive approach, screening out information not considered relevant

to the patient's actual diagnosis. Thus, the clinical method is seen to be misdirected in its approach, with too great emphasis on the procedure the students should use (Stewart and Roter 1989; Evans et al., 1991; Evans et al., 1993).

In the experience of the clinical instructors, students are not trained to respond to the cues given by patients as the interview proceeds, nor are they trained to modify their questions to suit the particular medical hypothesis they wish to explore (Fitzgerald 1980; Evans et al., 1991; Evans et al., 1993). Clinicians also suggests that the traditional clinical method focuses too much on diagnostic skills and relatively little attention is given to the patient's management issues (Metcalf 1983; Flaherty 1985; Meichenbaum and Turk 1987). As Roter has so cogently commented, the educational emphasis on diagnosis of patient's presenting illnesses meant an inappropriately small portion of time was spent learning about patients management issues and the important of patients psychological states in illness and health. Diagnosis of patient's illness is an important step in treatment and care, but the majority of doctor-patient interactions are, infact, follow-up visits in which the focus is on problem management, health education and counseling rather than on diagnosis (Roter 1983; Stewart and Roter 1989). Students traditional history taking format address, in some way, the task of diagnosis, but they may learn very little about psychological and social factors which have been demonstrated to be so important in patient care (Dimatteo and Friedman 1984; Stewart and Roter 1989).

This method still dominates medicine today and has been consolidated by the incorporation of powerful new methods of investigation which have further enhanced our ability to interpret patient's illness in terms of underlying physical pathology. This clinical method does not aim to understand the meaning of the illness for the patient or place it in the context of his life and family. Subjective matters such as beliefs, anxieties and concerns are not the remit of the traditional approach (Silverman et al., 1998).

Medical students have been traditionally brought up in this world of the objective and the technology at the expenses of understanding the sick person, they have been taught to concentrate on the underlying disease mechanism and there by to avoid the patient's perceptions and feelings.

2.2 INTERPERSONAL COMMUNICATION SKILLS AND MEDICAL CONSULTATION:

Communication is essential to almost all aspects of health care, from history taking to providing information to patients (Silverman, Kurtz and Draper 1998). For many years, the clinical methods provided the basis for teaching history taking to medical students. In general, dissatisfaction is expressed in studies about the quality of communication in every phase of the medical encounter (Van Dalen et al., 2001). Similarly in a study by Rahman (2000) in Bangladesh revealed major incompetence of intern doctors in exploring the patient's psychological concerns, providing empathy, discussing the patient's personal issues and beginning and ending the interviews studies by Beckman and Frankel (1984) indicated that doctors interrupt their patient's opening statement after a mean interval of 18 seconds. Further more, patients do not always understand what the doctor explains, advice is not always answer to the patient's questions or the advice may be too difficult to act upon. Non-compliance in medicine is well described, more than half of the patients deviate from their doctor's advice or does not follow it at all (Sackett and Snow, 1979; Haynes, Taylor and Sackett 1979; Dimatteo and Dinicola, 1982).

Communication problem in medical practice are both common and important. In 50 % of visits the patient and doctor do not agree on the nature of the main presenting problem. Psychological and Psychiatric problems are common in general medical practice, but these diagnoses are missed in up to 50 % of cases (Simpson et al., 1991). Residents or trainees and practicing physicians have shown substantial deficiencies when studied (Byne and Lone 1984). Cultural differences also impede the work with patients (Simpson et al., 1991). Patients anxiety and dissatisfaction is related to uncertainty and lack of information, explanation and feedback from the doctor.

Communication is an interactive process. A person's experience and education strongly influence how information is interpreted. This idiosyncratic way in which an individual interprets information is often referred to as a person's frame of reference (Van Dalen et al., 2001). A doctor and a patient will view a health complaint from different frame of reference (Schouten, 1985). The patient will often have limited information about the medical background and has his/her own interpretation of what the complaint might signify. For the doctor, a patient's complaint represents a matter of logic, the doctor is medical expert, to a certain extent responsible for making the diagnosis and giving advice. Communication is

likely to be effective when both parties (Patient and doctor) attribute the same meaning or significance to the words and the non-verbal information that is exchanged. Effectiveness of communication improves when the doctor actively tries to understand the patients perspective, including the patient's situation, beliefs, point of view, fears, worries and attributions and when the doctor's is able to share this understanding with in patient (Silverman, Kurtz and Draper, 1998).

Improved doctor patients communication has been shown to result in increased satisfaction of patients (Eisenthal and Lazare, 1976, Eisenthal et al., 1979), increased cooperation and patients (Steward, 1984), decreased duration of treatment (Steward, 1984; Spiegel et al., 1989; Little et al., 1997); decreased duration of hospital stay (Mumford, Schlesinger and Glass, 1982) and fewer malpractice suits (Levinson et al., 1997), reduce anxiety and depression, improve compliance with treatment and reduces the number of complaints (Richards 1990; Simpson et al., 1991). Communication is especially important in breaking bad news, in the general care of patients with fatal illness, and care of the dying (Maguire 1985). Doctor-Patients communication are not only important from patient's point of view, but also may have a significant effect on the well being of the doctor. (Cantwell et al., 1997).

2.3 COMPONENTS OF INTERPERSONAL COMMUNICATION SKILLS:

Many people have clarified what to teach and numerous guides and check-lists have been available (Stillman et al., 1976; Cassata 1978; Sanson-Fisher 1981; Riccardi and Kurtz 1983; Cohen-Cole 1991; Van Thiel et al., 1991; Novack et al., 1992; Silverman, Kurtz and Drapper 1998). After carefully reviewing the literature and analyzing the behavior of practicing doctors, the components of communicative behaviors are identified (Van Dalen 1989). The medical consultation can be described in different ways. During the consultation several identifiable basic communication skills are used (Schouten 1982, Ivey 1983), thus giving guidelines for the desired communicative behavior. The consultation also takes place in the following three chronological phases: (1) Problem clarification (2) Medical history (3) Giving advice. Each of these phases has a characteristic structure.

2.3a BASIC COMMUNICATION SKILLS:

These are techniques which allow optimal cooperation of the patient, such as asking open-ended questions, structuring the interview, and summarizing the information. It is important that – throughout each phase – doctor and patient understanding is the same. Doctors should check whether the patients understand them and whether they understand the patients. However, patients must not be led away from some topics they might want to discuss with their doctor (Ivey 1983).

2.3b PROBLEM CLARIFICATION

This concerns exploration of the patient's questions, according to the patient's frame of reference. All too often this question is left implicit by doctors ('It stands to reason: when her abdomen aches she wants to get rid of the pain'). The patients, however, might very well have a different question, hidden behind this obvious one ('I am worried that I have a venereal disease and I want to be sure about that'). The psychological meaning of the patient's complaints, the fears, the wishes, the expectations, the attributions, in short everything the patients have thought and felt about their complaint, is important in itself and also for better compliance (Korsch et al., 1968), and must be clarified. This is best accomplished by an open-ended non-directive interviewing style.

2.3c MEDICAL HISTORY

This is directive questioning in order to translate the doctor's frame of reference. This involves many short questions and a different attitude to the first phase. It is important that both patients and doctors are aware of this. The introduction of this phase is therefore a very important skill. Furthermore, differentiation in the formulation of the questions is necessary to prevent a certain response-set with patients (Morgan et al., 1969).

2.3d ADVICE

Solutions to the problem are proposed and negotiated. Twenty of fifty per cent of the information doctors give to patients is not sufficiently understood. Directions can be given with which advice has a greater chance of success. When doctors allow patients to participate in the advising (i.e. allowing patients a choice of alternatives) chances of compliance are greatest (Di Matteo et al., 1982). Examples of training topics in this phase are 'Bringing Bad News' (i.e. structuring a consultation in which the doctor gives information that may bring

about a strong emotional reaction with the patient) and ‘Negotiating with Unwilling Patients’ (for example, reaching an agreement about following a diet with a patient who does not feel like changing his eating habits).

Similarly the structure of the Calgary-Cambridge observation guide (Silverman, Kurtz and Drapper 1998) uses a simple five-point plan within which the individual skills are structured. This plan is based on the five basic tasks that physicians and patients routinely attempt to accomplish in everyday clinical practice. The tasks therefore make intuitive sense and provide a logical, organizational schema for both physician-patient interactions and communication skills education. This structure was first proposed by Riccardi and Kutz in 1983 and is similar to that adopted by Cohen-Cole in 1991.

The five basic tasks are:

1. Initiating the session
2. Gathering information
3. Building the relationship
4. Explanation and planning
5. Closing the session.

Where possible a programme’s teaching objectives should be clear to students at the very start of the programme (Lesser, 1985). These objectives should preferably be operationalised as observable behaviour. At Maastricht medical school an interdisciplinary working group (general practice, surgery, internal medicine, psychiatry, nursing, social work and psychology) developed a generic model for doctor patient communication, based on literature findings (Van Dalen, 2001). The model distinguishes three phases of the medical encounter. In the first phase the patient is the expert. The patient knows why he has come to see the doctor, his worries, anxieties and attributions and his individual request of the doctor. In this phase, the doctor should listen, explore and be receptive to the patient’s concerns.

In the next phase the doctor is the expert. By means of directive questioning the doctor translates the patient’s complaint into a medical frame of reference. Systems review is a part of this phase, as well as physical examination, in which clarity of instruction and sensitive courteous behaviour are especially important, because the patient is often in a vulnerable position.

In the third and final phase both doctor and patient are experts, each in their own field. The doctor knows what can be done, including potential alternatives. It is the doctor’s

responsibility to clarify these alternatives and their likely consequences. However, the patient judges the alternatives in the light of his own circumstances, possibilities and preferences. In recent years this model has been further supported and refined by a growing body of experiences and evidence.

Appropriate elementary communication skills for each of these phases have been formulated and operationalised. This allowed for specific teacher guidelines (Van Dalen, Zuidweg and Collet, 1989) and an assessment tool, the MAAS-Global (Kraan and Crijnen, 1987; Van Thiel, Kraan and Van Der Vleuten, 1991; Van Thiel, van der Vleuten and Kraan, 1992; Van Dalen et al., 1998), which has been used in this study.

2.4 COMMUNICATION SKILLS TRAINING:

During the last few decades there has been a general increase in awareness of the need for more patient-physician communication and a return to a more patient-centred approach to medicine. This rising awareness is due largely to demand by individuals for more humanistic care by medical professionals, with research showing that patients are more concerned with their doctors' interpersonal skills than they are about their medical competence (Pfeiffer C. et al., 1998). Effectiveness of communication improves when the doctor actively tries to understand the patient's perspective, including the patients' situation, beliefs, point of view, fears, worries and attributions and when the doctor is able to share his understanding with the patients (Silverman et al., 1998). This recognition has led to a growth in the systemic teaching of communication skills within the medical curriculum widely. There is overwhelming evidence for a positive effect of communication skills training. Randomized studies have shown that medical students can and do learn different communication skills by training (Rutter and Maguire, 1976; Maguire et al., 1977, 1978; Schreier and Dub, 1981; Evans et al., 1989, 1991, 1996; Marteau et al., 1991; Quirck and Babineau, 1992; Campbell et al., 1996). The conclusion is substantiated by a large number of open effect studies (Aspregen K., 1999).

Numerous researchers and medical schools have evaluated the effects of specialized communication skills training on medical students attitude towards patients and their interview behaviours, compared with the effects of approaches embodied in the clinical method; beginning with the landmarks work of maguire and his associates (Magnire et al., 1978) and extending to more research studies (Alroy et al., 1984, Evamet et al., 1989;

Joesbury et al.,1990; Evans et al.,1993). Most studies clearly established that students given specialized consulting skills training show significantly improved interpersonal skills over their traditionally trained counterparts. They communicate warmth and undertaking to the patients (Engler et al.,1981; Evans et al. 1992a) and are more adept at detecting and responding appropriately to patient's verbal and non-verbal cues (Sanson-Fisher and Magnire 1980; Alroy et al., 1984), compared with their traditionally trained counterparts. Recent studies have shown that students trained in communication retain their interest in, and caring for, patients, well in to their education (Davis and Nicholan 1992), unlike students who received more traditional training (Preven et al., 1986).

These research studies show that, as students learn interviewing techniques and skills, they relate more effectively to patients on the interpersonal level. In so doing they may be able to elicit from patients a greater range and quality of information, which may then be used diagnostically to help the students elicit the patient's presenting medical problem(s).

The quality of doctor patient communication can be improved by training (Aspregren, 1999). Some elementary findings regarding communication skills training are:

- Any training is better than no training (Maguire, Fairbairn and Fletcher, 1986; Sanson-Fisher, Fairbairn and Maguire, 1988)
- Training with practicing is better than traditional instruction methods based on the acquisition of knowledge alone (Rutter and Maguire, 1976).
- Longitudinal training is better than concentrated training (Flaherty, 1985).
- There is no systematic difference in teaching by teachers of different disciplines (Quirck and Letendre, 1986; Lynch et al., 1992; Levine 1993; Van Dalen et al.,1999).
- It is for these reasons that health care organizations have recommended that communication skills training should be an integral part of the medical curriculum (General Medical Council 1993; AAMC, 1999).

Most medical curricula are therefore providing or preparing some form of teaching in communication skills (Evans et al., 1993). In the literature a multitude of teaching formats is described, directed at the acquisition of these skills (Carroll and Monroe, 1984; Monahan et al., 1988). Research has shown that medical students tend to pay less attention to communication skills in the course of the curriculum; especially by the time they are to solve

medical problems (Craig, 1992.). In a medical curriculum it is therefore important to continuously focus on communication (Flaherty, 1985).

3. RATIONAL OF THE STUDY:

The Institute of Medicine is one of the pioneer institutes of Nepal and has a curriculum, which is community based and community oriented but traditional. Students learn the necessary skills during medical encounter by the apprenticeship method. Though the history taking skill exercises are introduced in the first year of their medical school (IOM Curriculum for M.B.B.S., 1994), a specialized programme of training in communication skills is not included in the curriculum. This traditional method of training medical students in history taking often fails to teach them sufficient interviewing skills to enable them to obtain a full and accurate account of their patient's problems. No research has so far been carried out in Nepal to observe the level of communication skills of doctors or interns. An 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 (Usherwood, 1993). Different healthcare organizations have also recommended that communication skills training should be an integral part of any medical curriculum (General Medical Council, 1993; Association of American Medical Colleges, 1999). A communication skills training course in undergraduate medical education could improve the existing situation in Nepal.

In view of more and more medical schools coming up with no communication skills training component in their curricula, it become more important to make them aware of the importance of and the existing level of the interpersonal communication skills of their graduates.

Before implementing such a course it was important to carryout a base line survey to assess the extent to which doctors display interpersonal communication skills during medical encounters. Hence this study was designed.

3.1 RESEARCH QUESTIONS:

The research question addressed in this study was to know:

1. What is the actual level of interpersonal communication skills of the intern doctors at the Institute of Medicine, Tribhuvan University, Teaching Hospital, Kathmandu, Nepal?
2. Are the deficient in basic communication skills like exploring patients' psychological concerns, providing empathy, disclosing patients' personal issues etc.?

3.2 HYPOTHESIS:

The hypothesis of the research is that intern doctors are deficient in basic interpersonal communication skills particularly in exploring patient's psychological concerns, providing empathy, disclosing patient's personal issues.

4. METHOD

4.1 RESEARCH PLAN

The process of this research started during the unit 7 of Master of Health Professions Education Program and the final shape was giving in Netherland during the second campus based unit 8. The important steps in the process of study are shown in table 1.

1. Research proposal panning and design	-	Dec. 2000.
2. Conduct literature review	-	Jan/Feb. 2001.
3. Proposal Presentation and acceptance	-	Jan. 2001.
4. Planning for implementation, Ethical Clearance, permission etc.	-	April. 2001.
5. Collection Data (conduction of interviews By intern doctors	-	Sep./Oct. 2001.
6. Pilot Study	-	Oct. 2001.
7. Training of Staff Members	-	Oct./Nov., 2001.
8. Correlation of Staff Members ratings	-	Nov., 2001.
9. Data Analysis	-	Dec., 2001.
10. Draft Technical thesis	-	Jan., 2002.
11. Submit final copy of thesis	-	Jan., 2002.
12. Thesis presentation	-	Feb., 2002.

Table 1. Schedule of research activities

4.2 PARTICIPANTS (SUBJECTS)

The subjects of this research were the intern doctors who were under going the compulsory rotating internship in various departments of Tribhuvan University Teaching Hospital, Institute of Medicine. Out of total 40 intern doctors who were attending the compulsory rotating internship in different specialities, Twenty five percent of them, that is ten intern doctors were selected on a stratified random sampling basis. Demographic profiles used for stratified sampling were sex, geographical background (different districts of the Kingdom), type of premedical education (Intermediate Science verses health assistant stream). This information was obtained from the administrative office of the Maharjgunj Campus, of Institute of Medicine, Maharajgunj, Kathmandu. The subject were from different geographical districts, health assistant and Intermediate Science stream were equal in number i.e. 5 interns from each stream and as there were only two girl interns both were included in the study.

4.3 MATERIAL:

4.3a INSTRUMENT:

The interviews were scored using the rating system. In our study we used the MASS-Global scoring list (Van Dalen at al, 1998), instrument used in Maastricht University, School of Medicine, Maastricht to provide feed back on the students communication skills. This instrument lists Thirteen case independent items with a 7- point likert scale (0 to 6). As all the interviews were fresh and there was no follow up interview, the item two of the instrument was not applicable in this study. (Appendix....). Two types of items could be distinguished in this instrument: items referring to communication skills needed in certain phases of the cosultation and the items about the communicative behaviour needed in the intire 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 too was to assess the process of communication skills rather than the content of the of the interview. The instrument was discussed with the senior faculty members of the Institute Of Medicine regarding applicability on our intern doctors and there was a full agreement on its acceptance in toto. The instrument consisted of a check-list and a 20 page scoring manual listing criteria per item, for the guideline of the raters. The reliability and validity of the

instrument is well established (Van Thiel et al., 1991; Van Thiel et al., 1992; Van Dalen et al., 1998).

Two Staff members were selected as the evaluators (raters) of the interviews. One of them is a medical educationist, with a MHPE degree from University of Maastricht, The Netherlands. The another one is a faculty member in the Department of Internal Medicine. Both were given the formal training regarding evaluation and Maas-Global, Manual was used as the guide for them.

4.4 PILOT STUDY

Ten interviews were video recorded of the five intern doctors (interviewing two patients each) who were not involved in the study. Five of the interviews were scored independently by both raters. The inter-rater correlation was analysed which was not satisfactory. Hence, they were again asked to discuss two of their original video tapes together in presence of the researcher and were asked for their thoughts what caused them to give marked different scores on certain items and again went through the Maas-Global Manual and in this way it helped them to reach agreement about how to interpret the criteria. They were again given the remaining five interviews for rating. The inter-rater correlation was established and was found to be satisfactory (> 0.8).

Pilot Study also helped to adjust the minor technical aspects of the interviews.

4.5 DATA COLLECTION

4.5a PROCEDURE

Each intern doctor was required to conduct four interviews with patients coming to the out patient department of Internal Medicine. Arrangements and appointments were made in such a way that each intern doctor interviewed four patients with different symptoms (two cases on day one and remaining two cases on day two and like wise). The patients were randomly picked up from the out patient by the supporting staff and were sent for interviews by the pre arranged intern doctors. All the interviews were video-recorded by the trained personnel and the consent was obtained from the patients as well as the intern doctors explaining them the purpose of the recording.

Ethical clearance from Ethical Committee of the Institute of Medicine permission from the Executive Director, T.U. Teaching Hospital, Head of the Departments Concerned were obtained.

4.5b SETTING

The interviews were conducted in out patient consultation setting where space was cornered down for effective recording without noise and other interference. Video was placed in such a way that it was not visualized by patient or intern doctor during interview to minimize the distraction during interview.

Two trained staff members scored the video recorded interviews independently using the MASS – Global scoring list. Each evaluated twenty original interviews. There was an overlap of 50% interviews scoring between two raters, So as to minimize the inter-rater bias, if any. However, the inter-rater correlation was established before hand and was satisfactory (> 0.8).

4.6 DATA ANALYSIS

For inter-rater correlation paired sample test was used.

Distribution of data was analysed with the K-S (normal) test and as the data were not normally distributed, frequencies were used.

95 percent confidence interval for median for each variable was calculated by using descriptive statistics and non-paramatric one sample sign test and sign confidence interval for median.

These statistics were calculated with the statistical Package for social sciences (SPSS version 10 for IBM) and Minitab computer software program.

5. RESULTS

5.1 DEMOGRAPHIC PROFILE OF THE POPULATION

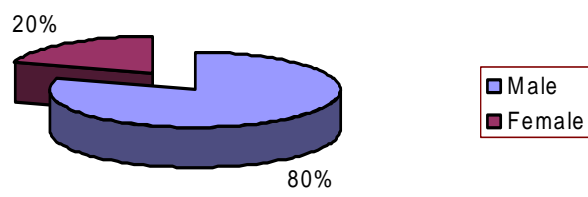
Table 2 shows the characteristics of the sample population.

- Out of total 10 intern doctors 8 (80 %) were male and 2 (20 %) were female.
- Age wise 4 (40 %) were of age 28 years while 26 and 27 years had 2 (20 %) interns each; Age 25 and 32 had one (10 %) each. There was not much difference in the age.
- Based on education, there were 5 (50 %) intern doctors having health assistant education while remaining 5 (50 %) had Intermediate Science Education background.

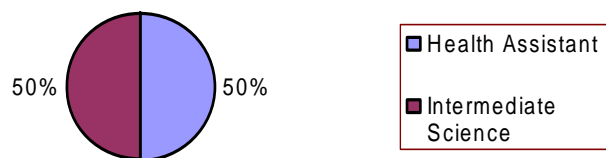
Table 2. Demographic Profile of the Population (N = 10)

Variable	Number	Percentage
Gender		
Male	8	80
Female	2	20
Age (Years)		
25	1	10
26	2	20
27	2	20
28	4	40
32	1	10
Education		
Health Assistant	5	50
Intermediate Science	5	50

Pie chart showing sex distribution



Education background



5.2 ANALYSIS OF INTER-RATER CORRELATION

Table 3. Inter-rater correlation

Pair No.	Cases	N.	Correlation	Significance
1.	Case1 R1-Case1 R2	12	0.79*	0.002
2.	Case2 R1-Case2 R2	12	0.76*	0.004
3.	Case3 R1-Case3 R2	12	0.82*	0.001
4.	Case4 R1-Case4 R2	12	0.79*	0.002
5.	Case5 R1-Case5 R2	12	0.63	0.027
6.	Mean1 & Mean2	12	0.97*	0.000

* $p < .05$.

Table 3 shows the inter-rater correlation per case as well as the mean correlation of all the 5 cases except for the case 5 correlation is statistically significant.

5.3 ANALYSIS OF MEAN SCORES FOR INDIVIDUAL COMMUNICATION SKILLS

Table 4. Mean Scores for communication skills for each separate phase.

Variable	Level of competence (N =58)	
	Mean scores	S.D.
1. Introduction	3.69	0.54
2. Clarification	1.27	0.49
3. Physical examination	3.36	0.87
4. Diagnosis	3.31	0.99
5. Management	3.50	0.94
6. Evaluation of Consultation	2.91	0.99

Table 5. Mean Scores for general communication skills.

Variable	Level of competence (N =58)	
	Mean scores	S.D.
7. Exploration	3.2586	0.6639
8. Emotions	0.9828	0.2957
9. Information Sharing	3.500	1.013
10. Summarization	2.190	0.783
11. Ordering	3.3448	0.7387
12. Flexibility	3.7414	0.6369

The intern doctors were assessed for the interpersonal communication skills under two categories: (i) communication skills required for each separate phase of consultation (Table 3) and (ii) General communication skills required in the entire consultation (Table 4). All together 12 items were analyzed. Their mean and standard deviation are given in respective tables.

Intern doctors reflected wide variation in competence while analyzing individual items.

Item wise the intern doctors have competence as mentioned below:

- For introduction they achieved a mean score of 3.69 which is less than satisfactory on 7-point Likert scale and falls in doubtful category of competence.
- For Clarification they achieved a mean score of 1.28 which reflects poor performance.
- For Physical examination, diagnosis and management they achieved a mean score of 3.36, 3.31 and 3.5 respectively and reflects a doubtful competence.
- For evaluation of consultation they achieved a mean score of 2.91 which reflects unsatisfactory competence.
- Under the General communication skills categories exploration, information-sharing, Ordering and Flexibility had a mean score of 3.26, 3.5, 3.34 and 3.74 respectively reflecting doubtful competence.
- They achieved the mean score of 0.98 for emotions which reflects the non-existence to poor competency.
- For summarization they achieved a mean score of 2.2 which is unsatisfactory on Likert scale.

6. DISCUSSION

In our study, the performance of the intern doctors (who represents the whole of the intern population statistically) in communication skills during the medical interview with the patients was not satisfactory. These findings are consistent with some of the other studies (Maguire and Rulr 1976; Thompson and Anderson, 1982; Simpson et al., 1991; Evans et al., 1992; Finaly et al., 1995; Rahman A.,2000).

Item wise interns had maximum mean score of 3.74 for flexibility, which includes empathy, attentiveness, gesture, eye-contact, time allotment to patient and disturbing hesitations or interruptions. In this item though scoring was less than satisfactory, it was as par with some of the other studies like J Van Dalen 1998 where students in the beginning of the year has a mean score of 3.79. In the study by Harrison et al., (1996) In the UA it was found that only 19 % of the students failed to maintain appropriate eye-contact. Verby et al.,(1979) and Poole and Sanson-Fisher (1979) also had similar results.

For introduction, which included the general orientation on the reason of visit and asking about other reason for visits, our intern doctors were in gray zone of scoring (3.69) which is better than some of the other studies (J. Van Dalen 1998; Rahman A.,2000).

Item clarification had a very low mean score of 1.28 which reflects that our intern doctors were very poor in naming request for help, wishes or expectations of the patients, naming reasons that promoted the patients to attend them.

Similarly, variable emotion, which was concerned with asking about or exploring feelings, reflecting feelings back, had a very low score of 0.98, which reflects non-existence to poor competency. In their study J. Van Dalen et al., 1998 also found that at the beginning of the 3rd. year students had low score on emotional aspect which improved at the end of the year.

For the item summarization also our intern doctors had a mean score of 2.2, which reflects that their skill of summarization is unsatisfactory. Similar findings are also observed by J. Van Dalen 1998 with slightly higher mean score.

For the item 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 3.36 which is as par with the study of J. Van Dalen et al.,1998.

Similarly for diagnosis and management they had a mean score of 3.31 and 3.5 respectively, which is similar to J. Van Dalen et al.,1998.

For overall evaluation o the consultation they had a mean score of 2.91, which falls in unsatisfactory category. These findings are also consistent with the findings of Evans et al., 1996.

On items exploration, information-sharing and ordering of the interview our interns had a mean score of 3.26, 3.5 and 3.34 respectively which are as par with some of the other studies mentioned earlier (Evan 1996, J. Van Dalen, 1998). In general quality of communication in every phase of medical encounter is poor or unsatisfactory.

6.1 CONCLUSION

This base line study of the interpersonal communication skills of intern doctor at Institute of medicine, Kathmandu, shows that over all our intern doctors are deficient in almost all the variables mentioned. In some of the interpersonal communication item like clarification to the patients, reflecting back on the emotions/feelings of the patients and summarization of the interviews, performance is very poor while in some of the other skills pertaining to physical examination, diagnosis, management they are in grey zone of doubtful competency. The reason for this may be that they are trained in traditional way of encounter with the patients. The curriculum does not include any training on specialized communication skills. Whatever communication skills they learn are through clerkship during clinical postings.

7. RECOMMENDATION

During the last few decades there has been a general increase in awareness of the need for more patient-physician communication and a return to a more patient centered approach to medicine. Effectiveness of 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 (Silverman J. et al.,1998). This recognition has led to a growth in the systemic 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 curriculum of most of the medical schools in the kingdom of Nepal including Institute of Medicine, which is a pioneer institute in the country. This study also suggests that it is the high time that the medical curricular in Nepal should also include the training in communication skills. Awareness among medical education of the value of effective communication skills for physician has led to the expansion of the medical school curriculum to include the course in communication skills in different part of the world (Usherwood 1993). Different healthcare organizations have also recommended that communication skills training should be an integral part of any medical curriculum (General Medical Council, 1993, Association of American Medical College 1999).

A communication skills training course in undergraduate medical education could improve the existing situation in Nepal.

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Appendix – 1

Assessment of Interpersonal Communication Skills of Intern Doctors
Tribhuvan University Teaching Hospital
Institute of Medicine, Kathmandu, Nepal.

Name of the Intern Doctor:

Case:

Patient:

Observer:

0 = not present 1 = poor 2 = unsatisfactory 3 = duoubtful

4 = satisfactory 5 = good 6 = excellent n.a. = not applicable

The rating boxes are intended only as a reminder for the observer.

Circle the relevant score for each item.

General Communication Skills

1. Introduction: 0 1 2 3 4 5 6

General orientation on the reason for visit

Asking about other reasons for visit

2. Follow up consultation 0 1 2 3 4 5 6

naming previous complaints

request for help and management plan

asking about the adherence to management plan

Asking about the course of the complaints/illness

3. Clarification:	0 1 2 3 4 5 6
Naming request for help, wishes or expectations	<input type="text"/>
naming reasons that promoted the patient to come now	<input type="text"/>
completing clarification of request for help	<input type="text"/>
4. Physical examination:	0 1 2 3 4 5 6
Instruction to the patient	<input type="text"/>
Explanation of what is being done	<input type="text"/>
Treating the patient with care and respect	<input type="text"/>
5. Diagnosis	0 1 2 3 4 5 6
Naming findings and diagnosis/hypothesis	<input type="text"/>
naming causes or the relation between findings and diagnosis	<input type="text"/>
naming prognosis or expected course	<input type="text"/>
asking for patients response	<input type="text"/>
6. Management	0 1 2 3 4 5 6
shared-decision making, discussing alternatives, risk and benefits	<input type="text"/>
discussing feasibility and adherence	<input type="text"/>
determining who will do what and where	<input type="text"/>
asking for patients response	<input type="text"/>
7. Evaluation of consultation	0 1 2 3 4 5 6
general question	<input type="text"/>
responding to request for help	<input type="text"/>
provisional prospects	<input type="text"/>
General communication skills	
8. Exploration	0 1 2 3 4 5 6
Exploring request for help, Wishes or expectations	<input type="text"/>
Exploring patients' response to information given	<input type="text"/>
within the patients' frame of reference	<input type="text"/>
responding to nonverbal behavior and cues	<input type="text"/>

9. Emotions: 0 1 2 3 4 5 6

asking about/ exploring feelings

reflecting feelings(including nature

and intensity sufficiently throughout

the entire consultation

10. Information-sharing: 0 1 2 3 4 5 6

announcing, categorizing

in small quantities, concrete explanations

understandable language

asking whether the patient understands

11. Summarisations (including repetitions) 0 1 2 3 4 5 6

Concise, rephrased

Content is correct, complete

checking

12. Ordering: 0 1 2 3 4 5 6

Logical sequence of phases

Balanced division of time

Announcing (history taking,

examination, other phases)

13. Flexibility: 0 1 2 3 4 5 6

Empathizing, attentive and open in

Intonation, gesture and eye contact

Sufficient time/space for the patient

No disturbing hesitations or interruptions

Appendix-2

List of Pilot Study Population with demographic profile.

S.No.	Name of the Participant	Age (Years)	Sex (M/F)	Address (District)	Educational background
1.	Dr. Ram Narayan Choudhary	25	M	Saptari	I.Sc.
2.	Dr. Navraj Simkhada	31	M	Dhading	H.A.
3.	Dr. Kiran Shakya	28	M	Lalitpur	H.A.
4.	Dr. Kamal Sharma Lamsal	27	M	Parbat	I.Sc.
5.	Dr. Jagannath Subedi	28	M	Kathmandu	H.A.

Note: I.Sc. = Intermediate Science.

H.A. = Health Assistant.

Appendix-3

List of sample population with demographic profile

S.No.	Name of participants	Age (Years)	Sex (M/F)	Area of residence (District)	Educational background
1.	Dr. Prasanna Shrestha	26	F	Kathmandu	I.Sc.
2.	Dr. Ramesh Maharatta	27	M	Chitwan	H.A.
3.	Dr. Mohan Shrestha	28	M	Sunsari	I.Sc.
4.	Dr. Reshma Silwal	27	F	Kathmandu	I.Sc.
5.	Dr. Shanta Kumar Das	25	M	Saptari	I.Sc.
6.	Dr. Pradeep Koirala	28	M	Gorkha	H.A.
7.	Dr. Niranjana Acharya	28	M	Lalitpur	H.A.
8.	Dr. Narayan Pokhrel	26	M	Sindhuli	I.Sc.
9.	Dr. Bijay Acharya	28	M	Bara	H.A.
10.	Dr. Padam Raj Adhikari	32	M	Dang	H.A.

Note: I.Sc. = Intermediate Science.

H.A.= Health Assistant.

Appendix- 4

CONSENT FOR PARTICIPATION IN RESEARCH CONDUCTED BY
DR. J. P. AGRAWAL

- The purpose of the research has been explained to me.
- I have given my consent to participate in this study.
- I have no objection if the recorded Video is utilized for teaching learning activities.

NAME OF THE PARTICIPANT:

DR.

DATE:

Appendix-5

विरामीको स्वकृति फर्म
(CONSENT FORM)

- डा. जे. पी. अग्रवालले चिकित्सा शिक्षा सम्बन्धि गर्न लाग्नु भएको अनुसन्धानमा सहभागी हुन मेरो स्वकृति छ ।
- चिकित्सकले जांचको भिडियो रिकर्डिङ गर्न मेरो सहमति छ ।
- सो भिडियोको आवश्यक परेमा विद्यार्थी पठनपाठन बाहेक अरु कुनै काममा प्रयोग गरिने छैन भन्ने जानकारी पनि गराइयो ।

विरामीको नाम:

ठेगाना:

मिति:

