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Communication skills training in undergraduate medicine: attitudes and attitude change.

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container be brought to the bedside when procedures are being performed, so as to ensure prompt disposal of sharps.

Gloves were not worn routinely as this was perceived as making the task more difficult. We strongly recommend that these be worn at all times in order to reduce the risk of cutaneous exposure and heighten ones awareness to the need for good phlebotomy practices.

The majority (72%) report no formal training in methods of venepuncture and the mechanism of reporting injuries. Annual infection control seminars for doctors and all health-care workers which review current techniques of venepuncture, safety precautions and the current mechanisms for reporting percutaneous exposures would be desirable. These infection control measures should be re-iterated at both under and post graduate level.

With regard to HBV immune status, only (41%) of interns were immune as evidence by recorded antibody levels greater than 100iu/ml. The remainder (59%) included those who never presented for immunization, those who had incomplete vaccination courses, and those who never had their antibody levels checked. We endorse the recommendation that all health care staff be adequate immunised against hepatitis B. In the light of our findings it is evident that improvements in phlebotomy practices, safety measures and educational programmes are warranted, in order to heighten awareness to the risks of occupationally acquired HIV and HBV infection.

References
4 Update: human immunodeficiency virus infection in health care workers exposed to blood of infected patient.s MMWR 1987; 36: 285-6.

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Communication skills training in undergraduate medicine: Attitudes and attitude change

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Abstract
The importance of communication skills training in undergraduate medical education is now widely accepted. However little is known about student attitudes towards their own communication skills and whether their attitudes change as a result of participating in communication skills courses. The aim of the present study was to identify these attitudes prior to commencing such a course and to further evaluate changes in these attitudes on completion of the course. Results demonstrated an improvement in perceived confidence regarding a number of specific communication skills. The study provides further evidence of the value of such courses in undergraduate medical training.

Introduction
The importance of communication skills training in the undergraduate medical curriculum is now widely accepted. The aim of communication skills programmes is to introduce students to the complexity of interpersonal communication and to equip them with some basic knowledge and skills. However, little is known about medical students’ beliefs regarding their own communication skills. How do they evaluate their ability to communicate with patients and are these beliefs influenced by training? In a previous paper the introduction of a communication skills course to the undergraduate curriculum at the Royal College of Surgeons Medical School was described.1 Course evaluation demonstrated that students were very satisfied with the course. Students gave higher ratings of satisfaction to more practical course sessions which allowed them to discuss communication issues with former patients and to role play interviews with each other. A finding of particular interest was that 77% of students reported that the course helped to reduce their anxieties about working with patients.

In the second year of the course the format and content was revised on the basis of tutors’ experiences and student feedback from the first year. The overall focus of these changes was to increase experiential aspects of the course. An evaluation of students’ attitudes to communication was undertaken before and after the course. Major revisions were the introduction of:
- a hospital base component, including input from clinical tutors to increase the relevance of the course for students who were about to start clinical training
- actors to simulate patients in role plays
- a wider range of former patients to lead discussion groups with the students.

The aim of this study was to investigate whether attendance at the course was associated with changes in students attitudes regarding their own communication skills. A detailed account

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of the revised communication skills course is presented so that the reader can appreciate such changes.

Revised course - the course was provided to students in the introductory term of their clinical training (summer term of the third year). Students were divided into six groups of 24 students. Each group attended the course on five consecutive mornings.

Monday - served as an orientation day to the topic of communication. Students were introduced to the idea of communication, both personal and professional. Factual information on communication already provided to students in their psychology course was reinforced. Activity-based learning was used to demonstrate the importance of non-verbal cues, how people recall information and how individual differences influence the interpretation of such information.

Tuesday - the focus was on the patient perspective on medical communication. Students met ‘former patients’ in order to learn about the patients’ experiences coping with serious medical conditions. A panel of five individuals who were willing to talk to students was compiled. Two had had a mastectomy approximately ten years previously, two had been patients in a psychiatric hospital suffering from depression approximately nine years previously and one represented the experience of having had a child with a mental handicap; she had a child born with Down’s Syndrome who was now 18 years old. During the morning, the former patients alternated in addressing the groups so that each student met two different types of patient. This session aimed to sensitise students to the patient’s perspective generally and also to give them some insight into the experiences of people with relatively stigmatising conditions.

Wednesday - the focus was on communication among professionals and between professionals and patients in the hospital setting. Teaching took place in Beaumont Hospital where students undertake their clinical training. Half of this session focused on communication issues from the student’s viewpoint, eg the range of inter-professional and doctor patient communication settings and difficulties in dealing with the dual student-doctor role. Anxieties often experienced by students beginning clinical training on the wards were paralleled with those of the patient when first admitted to hospital. Following this, students toured the Casualty Department where the focus was on communication issues in the wide variety of interpersonal situations encountered in this context (from unconscious patients to those with minor ailments, family members, patients under the influence of alcohol or drugs, etc).

Students then met with one of two former patients of the hospital who had undergone major heart surgery in the past two years. These patients described their condition and medical care from diagnosis to the end of the hospital’s cardiac rehabilitation programme and beyond to decisions about life style, employment etc. The session aimed to highlight the importance of good communication in hospital. This was felt important in order to avoid any misconception that the course had relevance only for primary health care settings. The session was jointly facilitated by a clinical tutor from the hospital to increase the salience of this message.

Thursday - the focus was on providing students with experience at interviewing outside of the clinical setting. Firstly students, with guidance, discussed and compiled the key elements of good and bad consultations. They then proceeded to role-play doctor-patient interviews with a range of patient scenarios (amateur actors), bed-based and ambulatory settings. Video recording of their consultations were made. Amateur actors (n=3) had prepared a range of patient scenarios provided in advance by the course team. Their presence and comments to students following role-plays helped increase the salience of the task for students. Students worked in threes by alternating doctor, patient and observer roles. In their role as observers, students completed structured evaluations to provide constructive feedback to colleagues on their performance. The aim was to provide students with experience in conducting consultations from which they can get feedback and discuss difficulties.

Friday - the focus was on integrating the messages of the previous days with their own experience of role-playing consultations. Video playbacks of the previous day’s interview were discussed in the overall group setting with permission of individual students and following Pendleton’s’ rules for consultation analysis. Students saw a range of strategies employed by fellow students with similar clinical scenarios and with varying degrees of success. Such exposure discourages the notion of ‘the perfect consultation’; or the ‘right way’ to talk to patients. The apprenticeship nature of their future clinical training, in which they are expected to learn by observation and modelling, was highlighted here. Video analysis was conducted within strict parameters so that comments made by students were constructive.

Method

Measures: I attitude assessment. A student attitude questionnaire was constructed by two of the authors (ED, HM). The questionnaire was designed to measure students’ views of their own ability to communicate with various types of patients and their views on various aspects of communication skills teaching. Statements were rated on a five-point Likert scale from one (totally disagree) to five (totally agree). The questionnaire was completed by students at the beginning (time one) and end (time two) of the week-long course.

II Course rating - the student feedback questionnaire was similar to that used in the previous study and asked students to rate course components from one (unhelpful/confusing) to five (very helpful). This questionnaire was completed at the end of the course.

All questionnaires were completed anonymously. Students were asked to write their mother’s date of birth on the attitude questionnaires so as to enable pairing of the students’ Time one and Time two forms in the analysis of attitude change.

Sample: In all, 127 students from a class of 145 (88%) attended the course. A total of 79 (54%) attitude questionnaires were completed form Monday (time one) and 96 (66%) questionnaires were returned from the Friday (time two) sessions. Discrepancies between these figures results partly from students arriving late, or not attending on subsequent days of the course. Because of an administrative error before and after attitude scales were only available for five of the six weeks. Fifty seven (40%) questionnaires were paired from Time one to Time two.

Results

Student Feedback: Analysis of student feedback was based on 96 (76%) completed questionnaires. Results were similar to those of the previous year. As before, students gave highest ratings to the role play sessions, meeting former patients and the video analysis.

Student attitudes and attitude change: At the beginning of the course, student attitudes to communication skills teaching were found to be very positive, (table 1). Seventy-six percent of the sample felt that communication skills could be taught (with 14% uncertain and 10% in agreement with the statement that they came naturally) and 94% felt it was a necessary part of their medical education. There was less consensus about the timing of such training although there was increasing agreement that it was scheduled at the right time by the end of the course. The majority of students (82%) did not feel part of the medical team in hospital and there was no significant change in that perception over the week. Although the majority of students did not feel confident in their ability to listen to patients (53%) or about what to say to patients (76%), surprisingly few felt nervous about actually working with patients (25%). However, students did feel nervous about specific types of patients, eg dying patients (59%), patients with stigmatising illnesses (63%) and patients who were doctors (66%). Analysis of change in these attitudes before
Table 1 - Changes in students’ responses to attitude questionnaire after attending communication skills course (N=57)

<table>
<thead>
<tr>
<th>Item</th>
<th>Agreement (n=4/5 at Time 1)</th>
<th>Attitudes changed</th>
<th>Attitudes changed more favourable</th>
<th>95% confidence intervals</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 I feel I know how to listen to patients</td>
<td>53.7-85.4*</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2 I feel I know what to say to patients</td>
<td>52.8-87.3*</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3 I feel I can understand what its like to be sick</td>
<td>51.3-86.8*</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4 I feel quite nervous about working with patients</td>
<td>43.7-78.9</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5 I think I would feel particularly nervous about talking to a patient my own age</td>
<td>36.0-80.9</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6 I think I would feel particularly nervous about talking to a patient of the opposite sex</td>
<td>49.8-86.2</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7 I think I would feel particularly nervous about talking to a dying patient</td>
<td>28.9-75.6</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8 I think I would feel particularly nervous about talking to a patient who is a doctor</td>
<td>49.1-84.7</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>9 I think I would feel particularly nervous about working with patients</td>
<td>58.8-89.2*</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>10 I think I would feel particularly nervous about talking to a patient with a stigmatising illness</td>
<td>49.1-84.7</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>11 I think I would feel particularly nervous about talking to a member of the religious profession</td>
<td>44.7-84.4</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>12 Good communication skills come naturally and can’t be taught</td>
<td>36.4-79.3</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>13 This course is taught at the right time in the medical curriculum</td>
<td>49.1-84.7</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>14 Communication skills training is a necessary part of my medical education</td>
<td>49-81.4</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>15 I feel part of the medical team in hospital</td>
<td>45.1-86.1</td>
<td></td>
<td></td>
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</tr>
</tbody>
</table>

* Significantly different from 50% of the sample

Discussion

This study examined the attitudes of undergraduate medical students partaking in a brief communication skills training course. Student feedback on this course continues to be positive with students giving higher ratings to the practical aspects of the course where they are given an opportunity to meet patients and to practice interviewing. Attitude change following the course indicated increased confidence in perceived ability to listen and to talk to patients and to empathise with patients. In addition students felt more confident about their ability to talk to patients with a stigmatising illness. During the course they met patients who had had cancer, had been in a psychiatric hospital or had a Down’s Syndrome child; three common stigmatising conditions. We believe therefore that meeting these people helped students to feel less nervous about future contact with individuals suffering from similar conditions.

While students felt quite positive on entering the course vis-a-vis their abilities to talk to potentially ‘difficult’ patient groups such as peers, a child, a patient of the opposite sex or a member of the religious profession, they were nervous regarding their ability to talk to a dying patient and this did not demonstrate significant change over the week. This is an area which may require specific attention in future training courses. Few studies have investigated changes in student attitudes as a result of attending communication skills courses. Some studies however have measured student attitudes over the course of the undergraduate medical curriculum. Of relevance to this study is the finding that student attitudes appear to become more cynical over the course of undergraduate training and that this increased cynicism was found to be related to lower performance on clinical medicine examination papers when compared to performance on basic science papers. However, another study showed that increased cynicism does not necessarily preclude a positive attitude towards patients. One study which did assess student attitude change following attendance at a communication skills course failed to demonstrate any significant changes. However, the authors point to difficulties in study design and measures used as possible reasons for this or the fact that students may have become more critical of their abilities. This study has been able to address some of these difficulties and in turn has demonstrated a number of significant changes in student attitudes regarding their ability to communicate more effectively with patients.

A number of comments are pertinent from tutor experiences of conducting the course over two years. Firstly, communication skills training requires considerable resources. In terms of personnel, eleven three hour sessions from College staff (Psychology, General Practice, Medicine, Surgery) and seven sessions from former patients or actors are required weekly (c. 54 hrs) for six weeks. Course planning and development, time tabling and other logistics are also involved as is the need for audio-visual and other teaching materials. The analysis of course evaluation forms is a further task.

Secondly, the course is perceived as a first lesson in the development of professional communication skills. The everyday clinical context is the primary classroom for communication skills development and ongoing communication skills training needs to be integrated into the clinical years of the medical curriculum. Trainee modules focused on specific issues such as communication with dying patients would be an appropriate continuation of training at a later date in the students’ course. Finally, communication training can only be of benefit in an environment which encourages good communication. Students sometimes perceive that practising good communication and meeting clinical team and examination requirements are conflicting rather than converging goals. It is unclear, for instance, if those students not attending our course had different attitudes.
to the value or quality of their own communication skills. The overt inclusion of communication assessments in medical examinations is an indicator, to students, staff and the general public alike, that communication is a core element of medical training.

After two years of running and evaluating the communication skills training programme, we are confident that we are achieving our stated aims and objectives. Students continue to rate the course components highly. This year we have gone one step further and demonstrated significant changes in student attitudes. At the end of training, students felt significantly more positive about their ability to listen and to communicate with patients, felt they had a better understanding of the meaning of being sick and also become more convinced that the course is indeed taught at the right time in their medical training, ie at the beginning of the clinical years. The next challenge is to evaluate behaviour change as a result of training.

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Continuous ambulatory peritoneal dialysis in children

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Abstract
Fifteen children with end-stage renal failure (ESRF) were treated with continuous ambulatory peritoneal dialysis (CAPD) in the Children’s Hospital Temple Street Dublin between July 1984 and December 1988. These fifteen children had 150.5 treatment months, an average of 10.03 treatment months for each child. The children grew well during CAPD at an average of 0.59 cm per month. Blood pressure control was satisfactory with five out of 15 children requiring antihypertensive treatment during CAPD.

The main complications of CAPD were peritonitis and catheter related problems. These 15 children experienced 47 episodes of peritonitis during 150.5 treatment months on CAPD with an average of one episode every 3.2 treatment months. Two of these children had a very high frequency of peritonitis (16 and 13 episodes each). If we exclude them from analysis, the remaining 13 children had frequency of one episode every 5.7 treatment months. During 150.5 treatment months, ten children required catheter replacement that is one catheter every 15 treatment months.

One child died of Candida peritonitis and to date twelve have proceeded to renal transplantation.

Introduction
Continuous ambulatory peritoneal dialysis (CAPD) has been the major advance in the management of end-stage renal failure (ESRF) in children over the last ten years. CAPD is relatively simple, safe and effective treatment and is well tolerated by children, including infants.

The peritoneum was identified as a dialysing membrane in 1922 by Putman. In 1923 Ganter first reported the use of the peritoneal membrane to remove uraemic substances in man. Widespread use of peritoneal dialysis was initiated following a report of Maxwell et al (1959) who used commercially available dialysate solution. The technique at that time required opening the system to potential bacterial contamination during each dialysis pass, which prevented the use of peritoneal dialysis for a long time. Boen (1964) described the use of a closed system which minimized the potential for bacterial contamination during repeated procedures. Tenckhoff described a novel portable, wearable, equilibrium instillation of dialysate in the peritoneal cavity four to five times daily for a period of four to eight hours and this was labelled as continuous ambulatory peritoneal dialysis (CAPD). However, the use of bottles containing dialysate solutions necessitated breaking the system twice during each pass or eight to ten times daily and led to a high rate of peritonitis. Oreopoulos et al introduced the use of plastic bags filled with dialysate so that the number of disconnections was reduced and this led to a decrease in incidence of peritonitis. CAPD was performed 24 hours a day, seven days a week, interrupted only three to five times a day for a short time to drain the dialysate from peritoneal cavity.

There are several reports of the use of CAPD in children. We wish to report our experience with CAPD on the years 1984-88 at the Children’s Hospital, Temple Street, Dublin.

Patients and Methods
Between July 1984 and December 1988, fifteen children with end-stage renal failure were managed with CAPD at the Children’s Hospital Temple Street. The total duration of treatment was 150.5 months, an average of 10 months for each child. The age at commencement varied between four weeks and 12 years with an average age of 6.7 years. The clinical details are displayed in table 1 and the duration on CAPD in