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COMMUNICATION

Teaching and Learning about Written Communications in a United Kingdom Medical School

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ABSTRACT **Context:** Written communications have a long history in medicine. Today, doctors spend a significant part of their work time completing paper work. Although the importance of accurate written communications is acknowledged, medical curricula rarely include focused teaching on this topic.

Objectives: The aim of this paper is to assess the feasibility of a teaching session for second-year medical students aimed at raising their awareness of written communications in the context of health care.

Methods: Immediately after the session, students and tutors completed written evaluations of their experiences. Four months after the session the entire cohort completed a knowledge test, and scores of attendees and non-attendees were compared.

Findings: Three of four learning objectives were completely met by at least half of the students and the exercises were rated as helpful. Students' and tutors' comments identified specific aspects of the session that require improvement, in particular, developing the exercise on patient-centred written communications. Students who attended the session scored significantly higher in a relevant knowledge test than non-attendees.

Discussion: The session provided students with the knowledge to identify patient-centred written communications and other features of effective writing in the context of medical care.

Conclusions: Introducing the topic early in the medical curriculum may prove valuable in establishing effective practice. Providing students with opportunities to revisit this important topic throughout their medical education may also be beneficial. The long-term impact of the session needs to be evaluated.

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Introduction

Written communications have a long history in medicine and are an important element of health care (Ward & Yell, 1993). While there is some consensus on what constitutes effective medical writing (Crossley *et al*., 2001) and professional associations encourage legible and accurate records (Medical Protection Society, 2000), surveys of the content of communication skills programmes show that written communications seldom form part of focused teaching in medical education (Whitehouse, 1991; Novack *et al*., 1993; Hargie *et al*., 1998). Communication skills textbooks rarely make reference to written communications.

Given that written communications in medical practice have revealed inadequacies (Charnock *et al*., 1999; Shere, 2001; Smith, 2002; Tooth, 2002), a session was developed to raise students' awareness of the important role of written communications in health care as an initial step in equipping them with skills necessary for effective use of written communications in a professional context.

At Imperial College London, a new communication programme has been developed with the broad aim of developing medical students' competencies in patient-centred communication. Although the programme focuses on interpersonal communication, other modes of communication are also considered. This paper describes an evaluation of the feasibility of teaching second-year medical students about written communications.

Methods

Description of Session: Written Communication in Health Care

In the second year of the programme and prior to their first clinical experience, students participated in a 2 hour session on written communication. Facilitators from different disciplines led groups of approximately 20 students in learner-centred exercises.

Teaching focused on three areas. First, the ways in which written communications are used in health care. Second, in the same way that patient-centred interviewing underpins the interpersonal component of the course, the ways in which a patient's individuality can be maintained were emphasised. Third, students were introduced to some common medical abbreviations.

Throughout the session, students were encouraged to think about the impact of technology on written communications in health care. This included clinical information systems, e-mail communications and websites.

In the first exercise students worked in pairs to decipher commonly used medical abbreviations. At the end of the session, students assessed their progress and identified issues associated with abbreviations with multiple meanings and the importance of context to convey understanding. For example, DIC can mean ''doctor in charge'', ''died in casualty'' or ''disseminated intravascular coagulation''. Caution was urged in the use of abbreviations other than for efficiency in recording information during medical interviews and personal notation.

The second exercise used brainstorming methods to identify ways in which written communications are used in health care. Responses covered a broad range of uses and included medical histories, case records, referrals to colleagues, letters to patients, health care pamphlets, self-help books, prescriptions, consent forms, staff appraisals, death certificates, research publications and print media. The breadth and depth of written materials were intended to signify the importance of the topic to health care professionals. Almost every aspect of work in health care has written communications impinging in some way on either the professional or the patient.

In the final exercise, groups of five students were provided with examples of written communication: letters from doctors to patients, letters between health care professionals (discharge/referral), medical records, guidelines on prescription writing and drug leaflet enclosures. Students were asked to assess one of these types of communications in relation to its purpose and effectiveness. In addition, students were asked to make suggestions to improve the examples contained within the packages. Each group then presented their findings to the larger group.

Evaluations: Students

Immediately after the session, students were asked to evaluate the degree to which they thought they had met the learning objectives and the usefulness of the exercises. Four months later, students completed a 30-minutes short-answer knowledge test on written communications in health care that reflected the learning objectives and hence had face validity; that is, listing ways in which written communications are used in health care, identifying key aspects of effective written communications, listing basic medical abbreviations and listing ways in which a patient's individuality can be maintained in written communications.

Evaluations: Tutors

Immediately after the session, tutors completed evaluation forms that asked them to identify elements of the session that worked well and how it might be improved.

Descriptive statistics and *t*-tests were used to analyze quantitative data on SPSS for Windows 11.0. The feasibility of the session was assessed by

qualitative data from the written evaluations of students and tutors. Emergent themes were identified independently and then discussed by the authors. Although students were strongly encouraged to attend all communication sessions, it was not compulsory. We hypothesised that students who attended the session would have higher knowledge scores in relation to written communications than students who did not attend.

Findings

The second-year student cohort consisted of 273 students. 175 Students reported attending the session, and 122 completed the post-session evaluations (70%). 98 students did not attend the session. The six tutors who facilitated sessions completed written evaluation forms.

Evaluations: Students
Table 1 shows that three of the four learning objectives were *completely met* by 50 to 74% of students ($n = 122$). The exercises designed to meet the learning objectives were rated as *completely useful* by 53 to 54% of students. The interactive nature (quiz, brainstorming, presentations) of the session was enjoyed. Some students thought the session could be shorter. Comments from students included:

> ''The brainstorming was helpful in getting us to think about the topic.''
> ''Having presentations on different aspects of communicating was really interesting. Makes you think about all written communications.''
> ''I did not realise that abbreviations could be ambiguous and the implications of this in health care.''
> ''Make the session shorter and less overlap in the materials.''

Evaluations: Tutors
Tutors reported that although the session worked well, some aspects require development. Emergent themes in data analysis identified that repetition in the types of communication contained in the packages resulted in the student presentations of similar material and that the session placed more emphasis on patient-centred communication.

> ''Although the psychiatric patient records were useful examples, it may be valuable to have a more general example as well. This would avoid repetition and also illustrate more general application of written communications.''
> ''Provide very clear examples of patient-centred written communication in the tutor guide. Students identified problems in the letters they were given but couldn't suggest alternatives.''

Table 1. Students' evaluation of the session ($n = 122$)

	Partially		Completely	
Extent to which they met learning objectives	no.	%	no.	%
Describe ways in which written communications are used in health care	31	25.4	90	73.8
Identify key aspects of effective written communication	41	33.6	80	65.6
List basic medical abbreviations	59	48.4	61	50.0
Identify ways in which a patient's individuality can be maintained in written communications	73	59.8	39	32.0
Usefulness of the exercises				
Deciphering medical abbreviations/ notations	53	43.4	66	54.1
Brainstorming ways written communications are used in health care	47	38.5	65	53.3
Identification and presentation of features of effective written communication	50	41.0	65	53.3

Knowledge Test

Table 2 shows that 4 months after the session, students who reported attending ($n = 175$) had higher total knowledge scores than students ($n = 98$) who did not attend ($p < 0.00$).

Discussion

The session on written communication appears to provide students with a level of knowledge that should enable them to be more skilful in their written communications. Four months after the session, students who reported attending the session possessed greater knowledge of written communications in the context of health care than non-attendees. This greater knowledge cannot be attributed to the session without insight into baseline levels of knowledge. Pre-testing would have enabled firmer conclusions to be drawn. It is possible that students who attended the sessions were already more knowledgeable than non-attendees. Communication sessions were not compulsory. However, a core group of students attended all sessions.

Attendees were likely to be those students who were most interested in communication skills and were therefore different to non-attendees. Perhaps what is most important is the fact that some students are more aware of patient-centred written communication than others and this may have negative consequences for those with less knowledge in relation to their future practice. Students who attended the session identified the implications of misunderstandings with the use of abbreviations and of recording incorrect and incomplete information.

The discrepancy between the number of students, who completed the evaluation forms immediately after the session and 4 months later self-reported attending the session, suggests that some students did not complete evaluation forms.

Students' perceptions of the degree to which they met learning objectives may not reflect actual levels of knowledge. However, educationally these ratings may have the benefit of encouraging students to reflect on what they have just learned (or not).

Undergraduate medical curricula are largely effective at preparing students for ''knowing'' and ''knowing how'', but less successful for ''doing'' (Flanagan *et al*., 2004). Timing the written communication session immediately prior to a clinical experience provided students with an opportunity to observe written communications in clinical settings. However, it did not provide an opportunity for actual practice. We contend that this contextualisation of written communication is simply the first step in preparing students for ''doing'' patient-centred communication as they progress through medical curricula. Subsequent exercises and assessments in written communication integrated with other aspects of clinical practice could form a structured programme enabling written communication to be acknowledged as a core skill for professional practice.

Specifically in our communication programme, future sessions could include an exercise to encourage students to identify effective practice in written communications in their clinical attachments. This would enable students to apply directly the learning that had taken place in this session and so eliminate the singular nature of just one session on written communications. It would also be helpful to provide opportunities for students to reflect on their own written communications in relation to health care when students start taking an active role in clinical practice.

Table 2. Test scores for attendees and non-attendees ($n = 273$)

	Mean	sd	t	df	
Attendees ($n = 175$)	25.1	3.6	7.192	271	$p < 0.00$
Non-attendees ($n = 98$)	21.7	4.3			

Aspects of the session that need refinement include emphasising the ways in which patient individuality can be maintained. Students reported that this learning objective was least well met, and this was reinforced in the results of the knowledge test. Notable difficulties in test answers centred on students' value judgments of patients reflecting paternalistic attitudes. Similar judgments are critically described in the literature (Smith, 2002; Tooth, 2002).

Examples of ways in which patient's individuality can be maintained in correspondence with patients include basic considerations such as ensuring that the patient's name is not only used but also spelt correctly. Language used reflects the patient's level of understanding. Reference could be made to personal or other identifying elements of the consultation and acknowledgement of the patient's concerns and expectations. In addition, the writer should clearly set out when, how and where the patient can seek further help and ensure that the author's name is indicated and the letter signed. The latter is contentious in the medical community but is now strongly recommended for accountability in professional practice (Medical Protection Society, 2000; Shere, 2001; Smith, 2002; Tooth, 2002).

Maintaining patient's individuality in correspondence between health care professionals may include the items listed above. However, the context of the correspondence determines the elements necessary for maintaining the patient's individuality. In addition to the above items, quotes from the patient may be used as illustrations and specific requests should be included.

Improved tutor preparation would enhance the experience for students. Although tutors were provided with both a detailed written guide and a verbal briefing, an opportunity for greater discussion and guidance may have proved helpful given the diversity of backgrounds of the tutors. For some groups the brainstorming and presentation activities could be strengthened. Other improvements include a review of the examples provided to reduce repetition.

Although this session and its evaluation are set in the context of undergraduate medical education, the topic is well suited for continuing medical education and for other professional groups. The topic may be more effectively taught in a multi-professional environment, given the amount and significance of written communications between health professionals in relation to the patients for whom they share responsibility for care.

Conclusions

Focused teaching on written communications provides students with an opportunity to reflect on an essential skill for medical practice. Students who reported attending the written communication session demonstrated greater levels of knowledge than non-attendees 4 months after the session. This suggests that written communications can be successfully taught and learned in undergraduate medical education. It is uncertain how long this difference

persists and whether this increased knowledge results in more effective written communications in practice.

Future sessions need to emphasise the ways of maintaining patient individuality in written communications and linking students' experiences with their clinical practice. Further, a multi-professional approach to teaching and learning about written communications may be valuable given its significance in exchanges between healthcare professionals.

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