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Increased Focus on the Teaching of Interactional Skills to Medical Practitioners

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Abstract. The interaction which occurs between the doctor and patient has been described as the cornerstone of medial care. Research has shown that interactional skills can have a substantial impact on patient outcomes in a number of areas. However, as practitioners do not necessarily acquire such skills through clinical practice, the introduction of formal training programmes for both under and postgraduate medical practitioners should be more closely examined. This paper outlines a number of issues which need to be considered in the formal instruction of medical practitioners in interactional skills. These issues include the teaching of skills within a clinical context that will reflect actual medical practice, the use of all medical disciplines to teach the skills and the inclusion of formal assessment strategies based on the same rigorous criteria as other components of the medical curriculum.

The quality of medical care has been divided into two domains; one involving technical competence, the other defined by competence in interactional skills (Donadebian, 1988). While the community appears reassured by the ability of undergraduate and postgraduate training courses to produce graduates who are competent in technical skills such as diagnosing, prescribing and procedural skills, they seem less sanguine about the interactional skills competency of some medical practitioners (Helman, 1985; Wiggers et al., 1990; Sanson-Fisher and Cockburn, under editorial review). Research indicates that patient dissatisfaction with the quality of medical care focuses more on the interaction between the doctor and patient than on any other aspect of care (Helman, 1985; Reid and McIlwaine, 1980).

What Are the Domains of Interactional Skills?

The interaction that occurs between the doctor and patient has been described as the cornerstone of medical practice (Doherty et al., 1990). At least 60% of medical diagnosis and treatment decisions are made on the basis of information collected during the medical interview (Hampton et al., 1975; Sandler, 1980). The skills used by the practitioner in this interaction can be classified into three broad domains or areas:

- The first of these broad domains of skills includes general communication skills or the skills used to gather and transfer information. General communication skills include the ability to empathise, maintain eye-to-eye contact, open

and close the consultation appropriately, control time effectively and indicate warmth (Goldberg et al., 1983).

- The second domain is that of information gathering skills, which are those techniques that allow for the collection of an accurate clinical history from the patient. It has been noted that ineffective skills in this area may lead to adverse patient consequences (Fallowfield, 1992). For instance, practitioners with poor information gathering skills may curb the expression of verbal and non-verbal indicators presented by distressed patients during a medical interview (Davenport, Goldberg and Millar, 1987). Practitioner behaviours such as the exclusive use of closed questions when gathering information about physical symptoms, not maintaining eye-to-eye contact as well as the failure to clarify the patients' symptoms have led to patients not revealing their psychological distress (Goldberg et al., 1983). In a study of the ability of interns and residents to undertake physical examinations, the most common problems identified involved the use of interactional skills to gather information (Weiner and Nathanson, 1986). Only limited information on the patients' presenting condition was obtained due to the speed at which interns asked questions. Consequently, patients' answers were found to be disjointed, leading to the interns providing poorly defined accounts of the presenting conditions (Weiner and Nathanson, 1986).
- Finally, there are information transfer skills that allow the practitioner to effectively transfer information to the patient in a way which increases the probability of positive outcomes. Although the practice of transferring information to the patient has been found to take up to 22% of consultation time (Cockburn, Reid and Sanson-Fisher, 1987) an increasing number of studies have reported that patients have difficulties in remembering the information given to them by doctors. Dunbar and Agras (1980) found that two thirds of patients forget their diagnosis and treatment explanations while one half forget instructions immediately after an office visit. Other information skills required by providers include the ability to educate patients about the problem, to deliver preventive health strategies competently and to apply strategies to aid patient compliance (Rollnick and Bell, 1991; Rollnick, Kinnersley and Stott, 1993).

Do Interactional Skills Affect Outcomes?

Research now indicates that interactional skills can have a substantial impact upon important patient outcomes in a number of areas. The interactional style of practitioners has been shown to correlate highly with the detection of psychologically disturbed patients (Marks, Goldberg and Hillier, 1979). Practitioners who exhibit the skills of using open-ended questions at the beginning of a consultation, the display of empathy and the clarification of verbal cues given by the patient have been found to be more likely to recognize those who have psychological disturbances than practitioners who did not use such skills (Goldberg et al., 1983).

Patients' recall of medical information is an important prerequisite for patient compliance and although the ability of the doctor to promote recall may appear to be easy, this is not the case (Ley, 1977). Studies have indicated that a significant amount of information heard and understood by patients during the consultation, is subsequently forgotten (Ley and Morris, 1984; Ley, 1988; Dunbar and Agraz, 1980). However, evidence does suggest that the use of specific interactional skills can improve patient recall of medical information. These skills include simplification of language by the doctor, explicit categorisation, presenting information in a specific rather than general format and giving the most important information first (Ley, 1983).

The adoption of a variety of interactional skills has also been shown to improve patient outcomes in relation to medication compliance. Such compliance is important: it has been estimated that, in the United States, the cost of non-adherence to regimes for ten common drug classes is between $396–792 million dollars (Ley, 1986). Non-compliance has also been associated with increased visits to health care providers, nursing homes and hospital admissions (Cowen et al., 1961; Bond and Hussar, 1991). Additionally, the adoption of specific interactional skills such as supplying patients with adequate information about their condition (Inui, Yourtee and Williamson, 1976) as well as decreasing the complexity of medication regimes (Cockburn, Reid, Bowman and Sanson-Fisher, 1987) have been shown to be effective in increasing compliance.

Smoking cessation is another area where interactional skills have been shown to impact positively on patient health outcomes. The US Surgeon General has reported that smoking cessation has major and immediate health benefits for men and women of all ages and that the benefits apply to persons with and without smoking related disease (US Surgeon General, 1989). Interventions delivered by physicians have been shown to be effective with smoking patients. For instance, minimal interventions of 2–3 minutes duration have achieved cessation rates of between 5–10% (Russell et al., 1983) while more intensive interventions have produced abstinence rates of 33% at 6 months (Richmond and Webster, 1985), 27% at 12 months (Fagerstrom, 1984) and 36% at 3 year follow-up (Richmond, Austin and Webster, 1986). Physicians report they would be more likely to intervene in their patients' smoking behaviour if they had adequate training programmes in the skills necessary to provide smoking cessation counselling (Ockene, 1987; Orlandi, 1987). Such skills can be readily learned by physicians and those who receive training in counselling smokers to quit achieve higher smoking cessation rates than those who have not been trained (Wilson et al., 1988; Cummings et al., 1989).

The use of interactional skills such as the provision of information and psychological support has also been shown to improve the recovery of patients undergoing surgical procedures. A meta-analysis by Mumford et al. (1982) noted that such factors accounted for a reduction in the number of days patients spent in hospital. Other positive outcomes that have been reported from adequately preparing patients

include reductions in the number of analgesics required to reduce post-operative pain and vomiting (Melamed and Siegal, 1980).

Can the Skills be Taught?

A large number of studies have now demonstrated that relatively brief training programmes can result in a considerable improvement in interactional skills. In an extensive review of the literature, Kern et al. (1989) assessed over 200 studies that had explored the impact of interactional skills training and concluded that training resulted in a positive impact. Based on the seminal work of Maguire, there is now widespread scientific support for the inclusion of a number of elements into the training of interactional skills (Maguire and Rutter, 1976; Rutter and Maguire, 1976; Maguire, Fairbairne and Fletcher, 1986; Hoppe et al., 1988; McAvoy, 1988). Among these elements is the inclusion of a strong rationale for the adoption of desired skills (Sanson-Fisher et al., 1991). This rationale provides a basis from which the need for interactional skills, as well as strategies for interacting effectively with patients, can be established. Information on the behaviour being studied such as a definition of the problem behaviour, the prevalence, burden of illness and the potential role of medical practitioners have also been shown to be effective in interactional skills training (Sanson-Fisher et al., 1991).

Additionally, strategies such as rehearsal, practice and feedback have been shown to be effective in the teaching of interactional skills. By asking students to practice the introduced skills, with real or simulated patients significant improvements in interactional skills competence has been shown (Ruter and Maguire, 1976). Improvements in consultation skills and the collection of diagnostic information following training have also been reported for direct feedback strategies using either video, audiotapes or peers (Maguire, Fairbairne and Fletcher, 1986; Roche et al., under editorial review). The peer feedback approach has been shown to be superior to video feedback in enhancing medical students' smoking cessation intervention skills. It has been suggested that the potency of this mode of feedback lies in the direct involvement of the student in the teaching process, the structured opportunity for practice and immediate feedback as well as peer pressure to demonstrate such skills (Roche, 1993). However irrespective of the mode used, the longer term retention of skills requires continued input (Poole and Sanson-Fisher, 1980) as the skills have actually been shown to diminish over time (Engler et al., 1981; Elizur and Rosenheim, 1982; Kramer, Ber and Moore, 1987).

Are We Currently Teaching These Skills or Do Practitioners Acquire Them Through Clinical Practice?

For some, the development of interactional skills has been seen to be a process that practitioners would acquire in an incidental manner through their clinical contact (Mason et al., 1988). Research has shown however that exposure to patients does

not necessarily improve abilities to acquire the behaviours necessary for effective doctor-patient interaction (Maguire and Rutter, 1976; Maguire et al., 1978). For example, both interns and practicing physicians have been shown to have deficits in the interactional skills necessary to provide preventive health advice. Only 27% of practitioners routinely ask patients about a range of health risk behaviours (Weschler et al., 1983).

Similarly with interns, a tendency not to identify patients who engage in risk taking health-related behaviours such as excessive alcohol consumption has been reported (Gordon, Saunders and Sanson-Fisher, 1989). In a more recent survey, interns were found to have a perceived lack of competence in interactional skills. Although 64% felt competent in technical skills such as physical examinations, only 35% felt competent in interactional skills such as those required to break bad news (Roche, 1993). Currently in the US, training in interactional skills is primarily available at the undergraduate level and although a greater proportion (70%) of medical schools provide training, this training is general and the ability of students to detect, diagnose and manage common presenting problems is not well advanced (Roter et al., 1990).

How Do We Decide Which Skills to Teach?

It has been argued that for interactional skills to be effectively maintained in the post-training clinical context the initial skills need to be taught within a clinical context that will reflect future medical practice (Sanson-Fisher and Cockburn, under editorial review). To assist in the choice of these contexts a number of objective selection criteria, which interactional skills training courses could use as a focus for teaching, have been identified (Sanson-Fisher and Cockburn, under editorial review).

The first of these criteria is that the clinical issue for which skills are taught should be one that is commonly encountered in clinical practice. For example smoking could be used as an example given that one third of adults smoke and approximately 38 million of the 53 million US adult smokers could be reached by physicians as part of their continuing care (US Preventive Services Task Force, 1989). This is also the case for alcohol consumption where it has been reported that 22% of male and 10% of female patients who attend general practice settings drink alcohol on a daily basis (Wodak et al., 1991). Accordingly, the teaching of interactional skills associated with the prevention and cessation of issues such as smoking and alcohol use would warrant inclusion in teaching courses.

To ensure efficient use of resources, the teaching of interactional skills should also be directed towards clinical issues which have a high burden of illness. For example, cervical cancer could largely be prevented if all women had regular Pap tests. However, each year in the United States approximately 13,000 women are diagnosed as having invasive cervical cancer and around 7,000 women die of the disease (US Preventive Services Task Force, 1989). Other common prob-

lems in clinical practice with a high burden of illness include tobacco smoking, non-adherence and alcohol use. In the US, it has been estimated that one out of every six deaths is tobacco related with the total cost of smoking approaching $200 billion per year (US Preventive Services Task Force, 1989). Similarly, for alcohol use it has been estimated that the costs associated with alcohol abuse total over $115 billion (US Preventive Services Task Force, 1989). Interestingly, cost-effectiveness research suggests that, irrespective of the type of intervention strategy used, physician screening and intervention with smoking patients is considerably more effective than physician intervention for clinical problems such as hypertension (Schofield, Clarke and Sanson-Fisher, under editorial review).

With increasing demands on limited funds for health care, interventions delivered by practitioners require evidence of their cost-effectiveness. When examining interventions that utilise interactional skills comparisons need to be made between the effectiveness of delivering against not delivering the intervention. Strategies to enhance compliance which utilise interactional skills have been shown to be cost-effective. For example in an examination of non-compliance with the 10 most common drugs mentioned earlier, it has been noted that if compliance aiding strategies such as the provision of supplementary written information had been given, savings between $US 114 and $US 228 million could have been made (Ley, 1986).

The third criterion is that there must be a demonstrably effective intervention which would result in favourable patient outcomes and of which interactional skills are an integral part. Overall, three broad strategies have been identified to establish the effectiveness of interventions, namely identification of experimental research evidence, consensus, and critical appraisal strategies. A number of methodologically sound research studies have shown that counselling from a practitioner can significantly influence patients' smoking status (Russell et al., 1979; Slama et al., 1990; Wilson et al., 1990), alcohol consumption (Kristenson et al., 1983), diet (Stunkard, Craighead and O'Brien, 1980) and decisions to have a Pap smear (Ward et al., 1991). Consensus methods have been used to develop protocols for breaking bad news to patients (Girgis and Sanson-Fisher, in press). In a model which encompassed several steps the literature on breaking bad news was reviewed and a draft protocol prepared. This draft protocol was then circulated to a number of panels of perceived experts, including consumer groups, who followed a structured approach to reach consensus about the recommended strategies. The recommended strategies were then subjected to a final round of critical appraisal prior to acceptance.

Fourth, current deficits in practitioners' interactional skills are an important criterion in selecting areas for interactional skills teaching. A number of studies have shown that physicians fail to routinely detect, counsel and advise their patients about smoking. Recent data suggest that between 47–66% of smoking patients are identified by their doctors (Heywood et al., 1994; Bonevski et al., under editorial review). Even in a situation where the primary care provider was aware they were being observed, and had a prompt card on their desk, only 56% of smokers were detected (Dickinson et al., 1989). In cases where smokers are detected only a small

percentage of physicians report they are prepared to counsel these patients on a routine basis (Ockene et al., 1988).

Finally, the interactional skills that should be taught are those which are acceptable to both the medical practitioner and the patient. In a recent survey of family physicians, 72% reported that the identification of modifiable health risk behaviours was an important component of their job (Cockburn, Reid and Sanson-Fisher, 1987). Similar community surveys show that the majority of people perceive the physician to be an appropriate and acceptable source of advice on emotional problems, smoking cessation, alcohol consumption and cervical screening (Slama et al., 1989).

Who Should Teach Interactional Skills?

It is important that members of all medical disciplines be involved in the teaching of interactional skills to ensure the teaching of skills that are relevant to clinical practice (Sanson-Fisher et al., 1991). Interactional skills training should not be solely the responsibility of disciplines such as general practice, psychiatry and behavioural science. If training is restricted to these disciplines, students may perceive that these are the only disciplines where interactional skills are relevant or require demonstration. Hence there may be the perception that interactional skills are not required in areas such as surgery. Data suggest however that although surgeons perceive interactional skills to be important, their perceptions of their own competency is low (Girgis and Sanson-Fisher, under editorial review). By allowing all disciplines of medicine to be involved in teaching interactional skills, those without formal training in the use of the skills are provided with an opportunity to update their skills. In turn, this ensures that students have more effective role models. For these reasons it is vitally important that all disciplines provide input into the teaching of interactional skills. Such a model, which uses the teaching of interactional skills in all years of the undergraduate course, has the potential to maximise the effectiveness of training (Sanson-Fisher et al., 1991).

Should Skills be Assessed?

Assessment of student performance is a central aspect of effective teaching of interactional skills (World Health Organisation, 1993). It has been argued that if interactional skills are included in the curriculum of medical faculties, they should be adequately evaluated (Mumford et al., 1987). Such evaluation provides both feedback for students and a rating of their competence. By rating students' performances it becomes possible for the medical faculty to set a minimum standard of competence in interactional skills, in the same way that minimal levels are set for other clinical skills. The adoption of formal assessment strategies also sends a clear message to students that the Faculty believe such skills are important and that

the acquisition of such skills is assessed in the same manner, with the same weight as other skills.

How to Assess Skills?

The Canadian Workshop on the Teaching and Assessment of Communication Skills in Canadian Medical Schools (1992) recommended the assessment of interactional skills should be based on the same rigorous criteria used in other components of the curriculum. One assessment strategy system is to develop clearly defined and concrete rating scales (Sanson-Fisher et al., 1991). These rating scales can be used to score students' videotaped performances of consultations with simulated patients. Within each rating scale, numbered items under different headings are rated as Not Satisfactory, Satisfactory, Very Satisfactory, Excellent or Not Applicable. The reliability of the rating scale can be assessed by randomly selecting a number of videotapes to be independently re-rated by another assessor, who is blind to the previous assessor's ratings.

In a recent survey of interns interactional skills training 60% of the interns surveyed considered the training they had received in interactional skills was inadequate (Roche, Cockburn and Sanson-Fisher, 1993). Overall, interactional skills were found to be comparatively poorer than technical skills on a number of dimensions. For example, significantly less interactional skills training was reported at the undergraduate level and, significantly fewer strategies were used to train interns. In addition it has been reported that in their intern year, interns receive limited feedback from supervisors with no formal opportunities for remediation available (Gordon et al., 1989). Without specific input, the development of interactional skills will be impaired (Maguire and Rutter, 1976). Not surprisingly only a small proportion of interns perceive they are competent in interactional skills and research has shown a deterioration in interactional skills is evident over the intern year (Gordon et al., 1989). Clearly with such findings it is unlikely that interactional skills will be developed at a later stage in clinical practice.

Do Interactional Skills Generalise Across Time and Situations?

In perhaps one of the clearest demonstrations of the preservation of training benefits, Maguire, Fairbairn and Fletcher (1986) followed up a group of doctors some of whom had received interactional skills training as medical students. The doctors were contacted five years after their initial interactional skills training and asked to complete a videotaped history taking. The doctors selected to participate in the study were matched both on interviewing skills before training and on the time that had elapsed since training. Each doctor interviewed 3 patients and was rated by a psychologist unaware of whether they had previously received interactional skills training. At five year follow up, those who had received the interactional skills training as medical students were able to demonstrate better interactional skills.

It does appear however that for the generalisation of interactional skills to occur, the environment must be such that it is supportive and nurturing of these skills. A recent study of the technical, interpersonal and preventive care skills of interns at the beginning and end of their intern year highlighted a number of deficiencies in the areas of obtaining an adequate past history and information giving about medication use (Gordon et al., 1992). Overall for obtaining a past history at the beginning of the internship only 48% of interns met the minimum criteria for technical care. At the end of the period only 51% achieved the minimum criteria. Similarly with information giving about medications at the beginning of the intern year only 48% met minimal criteria compared to 42% at the end of the year. Such deficiencies may reflect the lack of attention in postgraduate education to the preservation of interactional skills particularly those in the areas of information gathering and information transfer.

What Are the Needs for the Future?

Interactional skills are clearly an integral part of quality medical care. Methodologically sound research has shown that interactional skills can be taught, that changes in such skills can result in changes to important patient outcomes and that the skills can be generalised across situations. However, although the teaching of such skills holds significant clinical promise, there remains a lacuna between this promise and what is actually happening in practice, despite substantive evidence indicating a need for practitioners to receive more training to improve these skills. There is an urgent need for a greater emphasis to be directed towards the teaching of interactional skills in all areas of the undergraduate and postgraduate medical curriculum. Allowances must be made for an increased allocation of teaching time and resources or thus a significant component of the quality of care, which can so easily be provided by medical practitioners, will continue to be neglected.

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