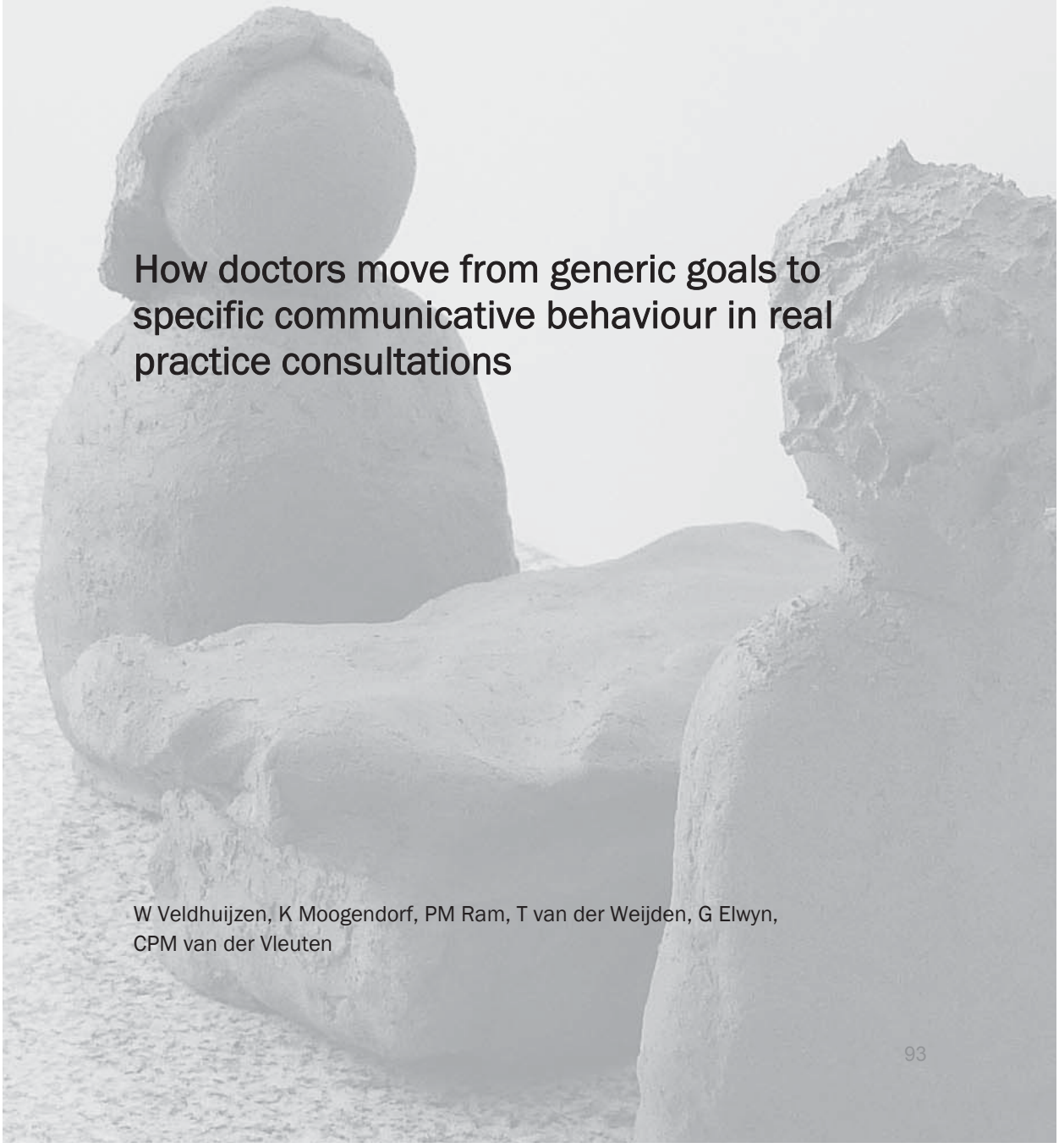
Chapter 5

How doctors move from generic goals to specific communicative behaviour in real practice consultations



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Abstract

Background

Communication training has been shown to have little impact on how doctors communicate with their patients, despite extensive efforts to improve the quality of teaching methods. A potential cause is the generic nature of recommendations for good communication, which doctors perceive as impractical for clinical practice. In order to understand which type of recommendations for communication would be in alignment with clinical routines, we explored how doctors select communicative actions during patient encounters.

Methods

We conducted stimulated recall interviews with 15 general practitioners, asking them to comment on recordings of two of their recent consultations. The data analysis was based on the principles of grounded theory.

Results

A model describing how doctors select communicative actions during patient encounters was developed, the goal-directed communicative action model. This model illustrates how GPs' communicative actions stem from a complex process in which GPs constantly adapt their selection of communicative actions to their evaluation of the situation. These evaluations culminate in the selection of situation-specific goals for individual consultations. The impact of GPs' consultation goals on the selection of communicative actions outweighs all other influences. These multiple and often dynamic goals require constant revision and adaptation of the discourse during consultations. GPs go to considerable length to tailor their actions to individual patients. When selecting consultation goals GPs weigh patients' needs and preferences as well as the medical situation and its consequences. In the final selection of communicative actions GPs attempt to tailor their communication to individual patients.

Conclusions

Doctors' selection of communicative actions during patient encounters is situational and goal driven. Goal-specific communication guidelines seem therefore better suited to the needs of clinical practice. To help doctors develop communicative competence tailored to the specific situation of each patient encounter, holistic communication training courses, which pay attention to the selection of consultation goals and communicative actions that serve these goals besides training specific communication skills, seem preferable to current generic communication skills training.

Introduction

Although medical curricula pay considerable attention to patient-centred communication, training appears to have little impact on doctor-patient communication in clinical practice. This is especially worrisome in light of repeated reports during the past forty years of doctors failing to meet expectations with respect to exploring their patients' beliefs, preferences, and emotions[1-6], giving information[6-8], and engaging in shared decision making with their patients[7-9].

The effectiveness of communication training methods has been extensively studied[10]. Studies of state-of-the-art training methods, such as small group learning, learner-centred methods, and hands-on training in using communication skills, have shown that medical students can be taught to show patient-centred communicative behaviour in practice situations[10-12]. Regrettably, studies have also shown that positive effects of communication training tend to decline after students start clinical training, while training courses for doctors appear to have little effect[13-16]. The negative impact of exposure to clinical practice on the quality of patient-centred communication has been interpreted as the corrupting effect of clinical practice, with studies focussing on the 'hidden curriculum' in clinical education showing negative attitudes of doctors towards patient-centeredness[17-19]. However, a different, more constructive take on the problem of declining communication skills appears to be offered by implementation theory, which proposes discrepancies between the change one wants to implement with training and the requirements of clinical practice as an explanation for implementation problems. Support for the relevance of this explanation for communication training can be found in various sources. While the majority of communication guidelines that are currently in use are generic and designed for use in all types of consultations[20-23], there are signs that these guidelines are not in alignment with the needs and requirements of clinical practice. Indeed communication guidelines have scored very low on 'user involvement' and 'applicability'[24]. GPs involved in communication training have suggested that doctors are underrepresented among developers of communication guidelines and qualified guidelines as 'somewhat artificial' and based on assumptions with 'little relevance to day-to-day practice'[20]. The main concern of these GPs was that the guidelines were too generic to be useful in specific situations. Hence, they applied only parts of the guidelines and adjusted their communication strategies to the specifics of encounters[20]. In a similar vein, De Haes claimed that effective communication differs from situation to situation, describing situations where patient-centred communication was not helpful and even detrimental[25], and Bensing et al.[26] argued that communicative actions intended to foster a positive therapeutic relationship can be counterproductive in situations where the emphasis is on promoting adherence to treatment. Support for situation-specific communication strategies is also provided

by broader communication theories, which state that a competent communicator has the ability to tailor communication to the situation at hand[27]. It is therefore not surprising that it has been suggested to develop specific guidelines, tailored to specific diseases or specific goals[28,29]. This plea for goal-specific guidelines is in line with communication theory on the selection of communicative actions, such as goals-plans-action theory and message assembly theory, which emphasise that communication is goal driven[27].

Although it seems clear that the current generic communication guidelines are not satisfactory, any change should be underpinned by research that examines which types of communication guidelines are best suited to clinical practice. As a preliminary step we need to gain insight into the communication routines that are commonly used by doctors and how doctors select communicative actions during patient encounters. Therefore we explored which factors determine doctors' communicative behaviour. For this purpose we addressed the following two research questions: Which factors' influence doctors' selections of communicative actions; and what is the role of these factors, i.e. what are the underlying mechanisms. Considering the paucity of information from studies on this topic we conducted an exploratory study combining stimulated recall interviews and a grounded theory approach.

Methods

General design

Using a grounded theory approach, we recorded and selected GP consultations, which were then used as stimuli for stimulated recall interviews[30] with the GPs (appendix 1). We used a cyclical process of data collection-analysis-reflection, based on constant comparative methods and progressive focus. In order to facilitate further exploration of topics that emerged from the interviews, we first analyzed each interview before proceeding to the next one.

Data sample

We purposively recruited GPs who varied in age, number of working years and practice settings (urban or rural). GPs who supervised GPs in training or who were university teachers were excluded to ensure that the participants were not involved in the teaching of existing communication guidelines. A call for participation was published in the newsletter of the academic department of general practice, which is disseminated in the southern part of the Netherlands. Additionally, a convenience sample of fifty GPs in the same region were approached by means of a personal letter followed by a telephone call. Female GPs were strongly

encouraged to respond in order to ensure diversity of the sample. Recruitment was stopped when data saturation had been reached. Usually, for stimulated recall interviews a sample of between 10 and 15 participants is considered sufficient[31]. Of all the participating GPs a clinic was observed by one of two researchers (WV or JU). After the clinic, the researcher selected two consultations to be used for a stimulated recall interview. The selection was intended to achieve maximum variation sampling regarding patients' age and gender, type of consultation (new complaint, repeat visit, chronic disease), type of complaint (ICPC classification) and the GP's use of communication techniques, which was assessed with the MAAS-global[32].

Interview

The interviews were held immediately after the recorded clinics. During the interviews the GPs watched the recordings of the two selected consultations. They were asked to reflect on their thoughts, intentions and actions during the consultation and stop the videotape any time they wanted to comment on these. The interviewer then prompted them to explain how their thoughts or intentions had influenced a specific communicative action. Whenever the interviewer suspected a change in the communication process but the doctor did not stop the tape, the interviewer could decide to stop the tape and ask the GP to reflect on his/her communicative action. All interviews were video recorded and transcribed verbatim.

Informed consent procedure

This study was exempted from approval by the medical ethical commission, by the executive committee of the medical ethics board, because the participating patients were not part of an intervention and no patient related medical information was used. The participating GPs received written information on the procedure and the purpose of the study. The practice assistants of the participating GPs were asked to invite patients who made an appointment for the day of practice visit to take part in the study. Except for the patients who declined to participate at this point, all patients received written information on the study from the office assistant on arrival at the practice and were asked to give informed consent to the office assistant or the GP. Before the start of each consultation the GPs asked patients whether they had received and understood the information about the study and were willing to participate. All verbatims were anonymised.

Data analysis

Coding of all the transcripts was done by attaching keywords ('codes') to all text fragments that were considered relevant to one of the research questions. Subsequently, we developed code networks that symbolized the connections

between codes. Additionally, we identified each occasion when a communicative action was discussed during an interview. For each communicative action, factors influencing its selection were examined and positioned in a scheme representing the selection process of that action. Based on the set of these schemes and the code networks the research questions were answered.

Validation of results

All the transcripts were analyzed independently by two of the authors with different backgrounds (WV (GP) and KM (anthropologist)), who discussed any differences in codes and selection schemes until consensus was reached. The developed model was discussed in depth by all the authors. Member checking was conducting through in-depth discussions of the model and the results on which it was based with three academic GPs who were experienced researchers and/or teachers of doctor patient communication.

Results

Fifteen GPs took part in stimulated recall interviews about two of their consultations. In all, thirty consultations were explored. The participating GPs represented a wide range of age (33 to 59), work experience (2 to 27 years) and practice settings (urban and rural, solo, duo and group practices). Eight of the GPs were male, seven female. The patients age ranged, from 2 to 86. They presented one to four complaints related to a total of nine different organ systems with musculoskeletal problems being the most common. Data exhaustion occurred after eleven interviews, with further interviews showing repetitions of the observed phenomena, thereby confirming the results without adding new topics. After fifteen interviews data saturation was reached and we therefore stopped collecting data.

The interviews

Average interview time was 60 to 90 minutes. Per interview, between 10 and 24 communicative actions were discussed. Most of the communicative actions were verbal, for instance various types of questions on different topics; some of the actions were nonverbal, such as nodding, smiling, or standing up to end the consultation. Besides form and content of communicative actions, the timing in the consultation (for example asking questions during physical examination) was also a frequent interview topic.

Agreement

Agreement between the two researchers (WV and KM) on what constituted a communicative action was easily reached, but the transition from one action to the

next one was occasionally subject of discussion. Generally, a new communicative action was considered to start when the topic of the conversation changed or a GP employed a different communication technique (for example changed from asking questions to making statements). It was easy for the researchers to agree on the factors that had a direct impact on the selection of a communication technique by a GP. Factors with an indirect impact, which influenced important mediators such as GPs' goals in a consultation, were more difficult to identify. Reaching consensus took more time in these cases and in some cases the researchers had to conclude that it was impossible to identify all the relevant factors.

Factors influencing the selection of communication techniques

Participants' reflections

It appeared to be difficult for the GPs to reflect on how personal factors, like thoughts and feelings, influenced their communicative actions. Although they described what they thought and felt at a certain point in a consultation, they had difficulty reflecting on how this impacted on their communication. When they were prompted to reflect on a particular communicative action by the interviewer, things went more smoothly, and the GPs were able to reflect on the causes and reasons for their behaviour. This suggests that selecting communicative actions is not so much a deliberate process as the result of an automated process, parts of which can be made explicit by probing.

Factors influencing the selection of communicative actions

We identified several factors that influenced the selection of communicative actions by the GPs: consultation goals, generic goals, assumptions about the patient as an individual and about his or her medical condition, the time available for a consultation, the GP's state of mind during a consultation, i.e. emotions and energy levels, and the GP's competence. An overview is given in box 5.1. These factors are described below and illustrated by citations from the interviews.

Consultation goals

The GPs described a variety of goals they pursued during consultations: examples of which are medical goals, such as diagnosis and treatment, and relational goals, such as meeting patients' preferences and needs and building a trusting relationship. Goals varied from consultation to consultation and usually several goals were pursued in one consultation. Goals sometimes conflicted, for example when a GP wanted to meet a patient's preference for a certain treatment, but at the same time aimed to avoid overprescribing. The following quotes are examples of GP comments on relationship building goals and diagnostic goals.

There it is, that "stupid" question: 'What do you like about playing korfball'. (...) I think remarks like that always serve two purposes: obviously I want them to like me as a doctor and I also think it helps when a patient feels there is an open climate, it will be easier for him to talk about things.
GP 3

Now I am considering the diagnosis. When I started to ask focused questions, I thought: pneumonia, airway hyper-reactivity or a common airway infection. Based on the focused questions I am almost certain that my diagnosis will be airway hyper-reactivity.
GP 8

Box 1: Summary of the results

The factors that influence GPs' selection of communicative actions	
Consultation goals	Time available
Generic goals	Emotions and energy level
Assumptions about patients	Competence
Assumptions about medical status	

The role these factors play in GPs selection of communicative actions
Consultation goals prioritise and limit the set of communicative actions.
Generic goals prioritise and limit the set of consultation goals.
All other factors influence relevant evaluations.
Assumptions about patients and about their *medical status* inform the evaluation of goal relevance.
Assumptions about patients and the *time available* inform the evaluation of goal feasibility.
Assumptions about patients inform the evaluation of action preferability.
Assumptions about the *time available* inform the evaluation of action practicability.
All evaluations may be influenced by GPs' *competence* and their *emotions and energy level*.

Generic goals

Goals were often described by the GPs as part of their tasks as a doctor as part of a shared professional identity, 'it is the task of a GP to ...', and also as part of their personal professional identity, 'as a GP it is important for me to ....' Apparently, the goals that directly impact on the selection of communication techniques are subordinate goals from a set of generic goals that represent the way GPs conceptualize their role as a doctor. Doctors' beliefs, norms, values, and social context are factors that influence these generic goals.

I like to use expressions like the ones I use here: 'that we will look at it together' and that we will 'talk about what we will do next'. It is important for me that the patient does not feel that I am the only one who decides what is going to happen, but that we do that together. I can imagine that this makes a patient feel better. It makes me feel better too. (...) My main goal is to ensure that patients a) receive good medical

technical care and b) at the same time go home with a good feeling about the consultation.
GP 7

GPs' assumptions about patients' medical condition

The GPs said they made assumptions about different aspects of a patient's medical condition, such as the diagnosis of the presented complaints, the prognosis, the aetiology, and how certain they were that their assumptions were accurate. These assumptions influenced how important medical goals were to the GPs: for example the importance of a detailed diagnosis, whether they should address a patient's life-style, or convince a patient of the necessity of a certain treatment.

GPs' assumptions about patients as individuals

The GPs made a lot of assumptions about patients' personal characteristics. They had preconceptions about stable attributes, such as intelligence, tendency to worry, and general preferences for certain treatments. These assumptions were mainly based on earlier experiences with patients or their families.

He is not very intelligent and that is relevant as well. I have often noticed with him that he doesn't really understand what you mean.
GP 1

Yes, I know that with this boy, that's the advantage of having been in practice for 27 years, I know this family is unlikely to be difficult anyway. I know they are not childish and not likely to complain.
GP 3

Based on patients' verbal and nonverbal communication, the GPs made assumptions about patient characteristics that played a specific role in specific consultations, such as patients' requests for help, beliefs about complaints, and emotions. Assumptions concerning patient attributes and situational patient characteristics, based on previous experiences with patients or similar patient groups, influenced the GPs' assumptions about how a particular patient would behave during a consultation and be affected by communicative actions.

The time available for a consultation

Time was an important factor. Many GPs felt that the constant demand to stay on schedule occasionally forced them to choose a communication technique that would limit the duration of a consultation. The GPs' perceptions of the available

time depended on the amount of time scheduled for a consultation and their ability to stay on schedule.

> *It was also because I was considerably behind schedule. That probably also explains why I became more pragmatic and did not lean back and ask: how is the pregnancy going and did you catch cold?*
> *GP 2*

GPs' state of mind: emotions and energy level

The use of communication techniques was also influenced by GPs' state of mind and energy levels. GPs said that low energy levels, for instance at the end of an exhausting day, limited their ability to apply communication techniques. Negative emotions, such as irritation, were associated with more directive and less exploratory communicative actions, whereas positive emotions, like happiness, were associated with non-directive behaviour.

> *When one hasn't slept well and one's energy is getting low, that can be a pitfall for me, for then I tend to become very directive and less likely to take time to listen to the other person.*
> *GP 13*

Most of the statements GPs made about the effects of their state of mind were general and non-specific. Emotions and energy levels were mentioned only rarely in relation to specific communicative actions. An explanation for this was proposed during the discussions with the academic GPs, where the possibility was raised that GPs think it is unprofessional to allow their behaviour towards patients to be influenced by their state of mind and consequently give socially acceptable answers or show a lack of awareness of concrete effects of emotions and energy levels.

GPs' competence

GPs do not have similar levels of skills for each communicative action. One GP may be good at using humour, others less so, either because they lack the ability or because they are unaware of its usefulness as a strategy. Familiarity with an action enhances its use.

The role of the influencing factors.

The central role of consultation goals

Central to the process of selecting communicative actions were consultation-specific goals. Generally, consultation-specific goals were mentioned as the main

influence in the selection of communicative actions. They determined the general direction of the communication, thereby substantially limiting the set of communicative actions that were considered.

Generic goals as a framework for consultation goals

The framework for the selection of consultation-specific goals was formed by generic goals, which determined which goals were regarded as falling within the professional scope of a GP. The priority given by GPs to different generic goals determined which consultation-specific goals they were most likely to pursue.

Fine-tuning of selection based on evaluations

While the general direction of the selection of consultation-specific goals was determined by generic goals, the selection was fine-tuned by GPs' evaluations. Most of the factors that affect the selection of communicative actions are a part of these evaluations. When selecting a consultation goal, GPs evaluate the relevance of possible consultation goals and their feasibility. They evaluate the expected effectiveness and practicability of a communicative action, also. All evaluations are affected by GPs' emotions, energy levels, and competence. Which other factors are included in the evaluation depends on what is being evaluated.

In evaluating a goal preference, GPs considered a patient's medical condition as well as their assumptions about that patient's personal characteristics, paying specific attention for the patient's needs and preferences. For the evaluation of the feasibility of goals the amount of time available was considered together with assumptions about patients' characteristics, for example willingness and ability to change behaviour. For example, it was an important goal for GP5 to help a patient who was an alcoholic to stop drinking, but the GP decided not to act on this goal, because earlier attempts to do so had failed and she believed this was not a feasible goal.

> *This lady has an alcohol problem, depression and relationship problems. In the past we have made plans to use anti-depressants and things have gone well for some time. But then she stays away for a long time. (...) My feelings about this are somewhat ambivalent. On the one hand I want to help her, on the other hand I am hesitant because she may want things but she is unlikely to stick with them. That's why at this point I do not go into the causes for her relapse. That is probably also due to our shared history. I am not going to offer her help.*
> *GP 6*

To evaluate whether a communicative action is likely to be effective, the GPs tried to predict how patients would behave in a consultation and how they would respond to different communicative actions, based on their assumptions about

patients' personal characteristics. GP2, for example, said he deliberately used strong words because he presumed that a more subtle approach would not succeed in convincing this sceptical patient that an antibiotic was not necessary.

If someone else made the same request, I would say that 'in itself it is of little use to do this'. But in this case I really feel I have to go one step further one way or the other. And just make it very clear to him. 'Absolutely not' is a statement I do not use often. But in this case I feel I have to be very firm. If I leave any room for doubt, I will definitely fail [to convince him]. And then he will go somewhere else to get his antibiotics.

GP2

To judge if a preferred action is feasible, the GPs evaluated whether they would be able to stay within the available time considering how much time their action and the patient's response were likely to take.

> *I think that at that point I was thinking we'll also get there this way. Let her have her say, ask all her questions and I know that she will get to her reason for coming to see me. I know she is like that. I was not worried that I had got it totally wrong here. If I just give her some space… then it [the request for help] will become clear anyway. GP 14*

Synthesis of the results

The goal-directed communicative action model

Based on the synthesis of our results we propose a provisional model that describes the intrapersonal processes that take place when GPs select communicative actions, the goal-directed communicative action model (Figure 5.1). The generic goals, which are listed on the left-hand side of the model are already present before the patient encounter and are not affected by the specifics of a consultation. Early in the consultation and sometimes even before the consultation, GPs start to evaluate their preferences for and feasibility of specific gaols that are congruent with their generic goals. They base these evaluations on what they know at that moment about a patient's medical condition and the patient's personal characteristics. This leads to the selection of situation-specific goals that determine the general direction of the communication in a particular consultation. The selection of further communicative actions is informed by GPs' evaluations of the expected effectiveness and feasibility of their communicative actions. All evaluations can be affected by GPs' emotions and energy levels as well as their competence. After the execution of the selected communicative actions, new information may emerge and lead to adjustments of the consultation goals and communicative actions. GPs are generally not conscious of these selection

processes, which seem to be automated and only come into GPs' awareness when things get difficult or in response to external probing, like the questions during the interviews.

Validation of the model: member check

According to the academic GPs the model offers an accurate representation of how GPs select communication techniques and provides useful handles for the development of effective educational interventions. They did not suggest any modifications of the model, but their reactions elucidated the influence of GPs' competence, emotions, and energy levels. Although competence did arise as a topic in the analysis, its role was not very clear. It was implied in several interviews but never explicitly mentioned. The academic GPs observed that this was probably due to the GPs' lack of awareness of their competence level and thus of its effect. As for GPs emotions and energy levels, they were mentioned several times as very influential factors when doctor patient communication was discussed in general, but only rarely within the context of specific consultations. In the discussions with the academic GPs this was attributed to the norm that it is unprofessional for doctors to allow their clinical actions to be influenced by their emotions or energy levels. As a result GPs may know that these factors have an impact on communication in general while being unaware of their effects on specific consultations.

Validation of the model: relation to theory

We compared our model to communication theories and general theories on how behaviour originates. The field of communication theory that describes how communicative actions come about, i.e. message production theory, is relevant to our model. The dominant theories on message production stipulate that communicators pursue frequently changing goals and that their selection of communicative actions is guided by their strategies to reach these goals[33]. According to goals-plans-actions theory, competent communicators typically have elaborate but flexible communication plans[27]. Our goal-directed communicative action model is in line with the dominant role of goals in the selection of communicative actions as stipulated in message production theories. The model also shows that GPs are flexible in their communication. The results of our study show little evidence of the presence of communication plans, however, and the GPs did not seem to be conscious of selection processes.

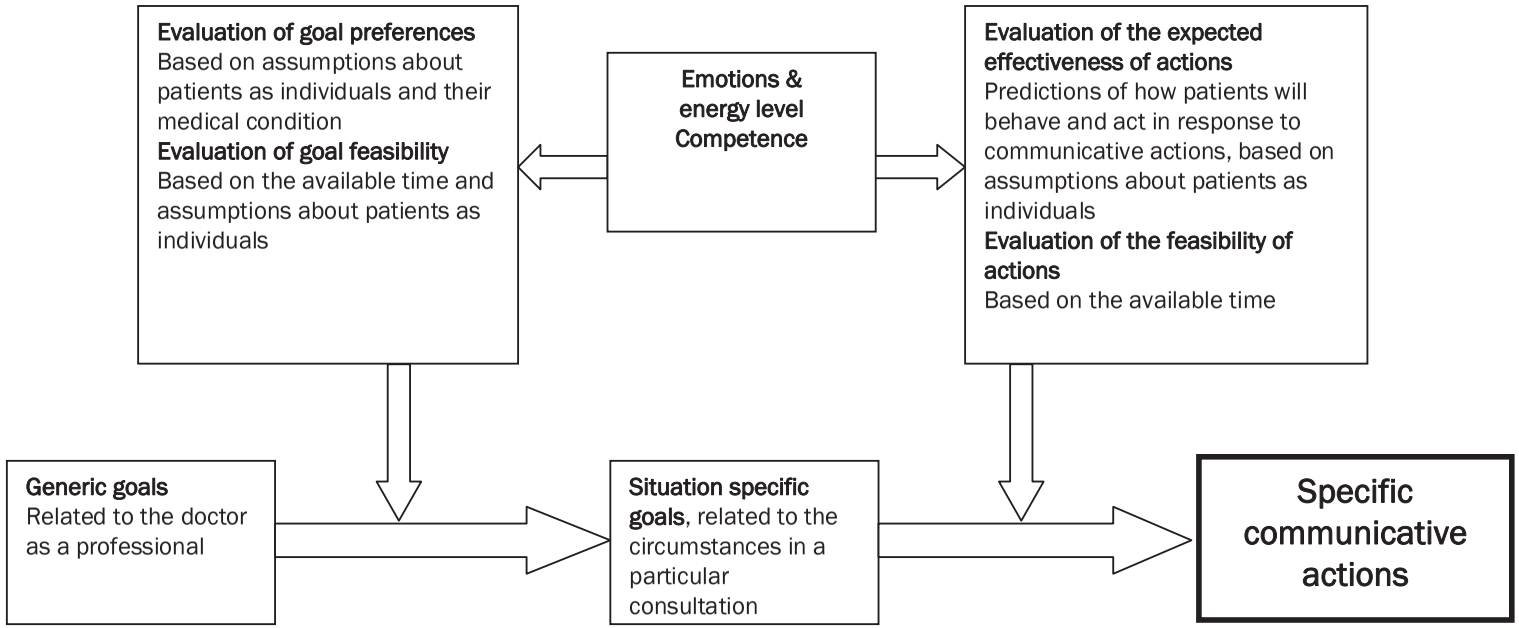

Figure 5.1 The goal directed communicative action model, moving from generic goals to specific communicative actions.

We also compared our model to the theory of planned behaviour (TPB), because this is one of the best validated theories on the establishment of behaviour[34]. According to TPB, attitudes toward a certain behaviour, subjective norms, and perceived behavioural control together produce an intention to enact a behaviour. Given sufficient behavioural control, people are expected to carry out their intentions when the opportunity arises[35]. In the case of doctor patient communication opportunities to carry out intended behaviours probably occur shortly after the intention is formed or not at all. The need for rapid selection of communicative actions - due to the need to respond to the communication partner and to new information that arises during the consultation - may explain why we were unable to identify behavioural intentions; they were probably enacted immediately and then forgotten. The factors that influence behavioural intentions according to TPB are represented in our model. In the model the selection of GPs' generic goals is based on attitudes toward behaviours and on subjective norms. Evaluations of goal relevance and the expected effectiveness of actions can be interpreted as evaluations of behavioural beliefs and subjective norms. Similarly, evaluations of goal feasibility and action practicability can be interpreted as perceived behavioural control. Like our model, TPB acknowledges that competence can influence perceived behavioural control but our model differs from TPB in the inclusion of the influence of emotions, which do not feature in TPB[35]. However, other studies have reported that emotions can explain behaviour independently of intentions and suggestions have been made to expand TPB with the influence of emotions[36].

Discussion

This study is a first attempt to describe how GPs select their communicative actions during patient encounters. It shows that GP-patient communication is goal-directed and that GPs constantly adapt their selection of communicative actions to their evaluations of characteristics of individual patients and medical aspects of the consultation. The empirically informed model of the selection process of communicative actions we build in this study is for the most part in line with theories that describe the establishment of behaviour, communicative behaviour in particular, such as the theory of planned behaviour and message production theories[27,33,35]. Discrepancies between our model and theory seem to be associated with the nature of consultations where communicative actions have to be selected very quickly due to time pressure and the need to tailor the communication to individual patients and their medical needs as new information arises during a consultation.

In this study we built an empirically informed model of the selection process of communicative actions. We interviewed GPs about carefully sampled recently recorded consultations. This data collection method is suited to chart in detail what doctors are thinking during patient encounters. In order to validate the results the data were analyzed by two independent researchers from different backgrounds and the results were submitted to academic GPs who were able to judge the model based on their extensive teaching and research experience.
The main limitation of our study is that the interviews did not capture the parts of the selection process that take place outside GPs conscious awareness. Thus it cannot be excluded that we missed information of which the GPs were not aware, although the GPs did reflect on the selection process when asked to do so. It is therefore important that the model should be verified in further observational studies of actual doctor-patient communication. Another limitation is that the participating GPs were volunteers, who are likely to be more interested in doctor patient communication than the average GP.

The field of doctor-patient communication is sometimes accused of being 'little evidence based' and it is said that it is 'generally accepted that there is limited theoretical basis to explain its mechanisms'[25,37,38]. With this study we aimed to contribute to the development of a theoretical foundation for the development of communication guidelines by providing a provisional model that explains how doctors select their communicative actions. The goal-directed communicative action model shows that situation-specific factors play a dominant role in the selection of communicative actions. Based on this insight, it seems likely that situation-specific communication guidelines will be more acceptable to doctors than generic ones and thus may have a stronger impact on care. This notion is supported by recent provisional review data on communicative interventions, which showed that, compared to generic recommendations, situation-specific communication training is associated with more changes in doctors' behaviour and more improvement of patient parameters[39-41]. Consequently, the introduction of goal-specific communication guidelines can be expected to improve the quality of care, an idea that is in line with Brown and Byley's theory-based proposal to develop guidelines consisting of sets of communication strategies that together promote the realization of the goal of a consultation[28]. The goals that emerged during the interviews appear to support the development of various distinct goal-related guidelines, such as a guideline for effective information gathering, a guideline for exploring and responding to a request for help, a guideline for comforting patients, etc. Additional support for the notion that doctor patient communication is goal driven is found in studies by Kellerman, who showed that people tend to act goal driven, even if they may not actually be aware of doing so[42].

In addition to suggestions for communication guidelines, implications for communication skill training can be derived from our model. Currently, the main focus is general skill training, i.e. training doctors to perform sets of communicative actions[10,43]. Our model indicates that this type of training is likely to have a limited impact. Indeed, exclusive emphasis on training doctors to perform sets of communicative actions may even be counterproductive, because it hampers the flexibility needed to tailor the communication to individual patients and to the specific medical requirements of a consultation. Current communication skills training ignores many components that make doctors good communicators. For communication training to be effective it probably needs to take a more holistic approach to communicative competencies, including knowledge, beliefs and even ethical considerations, besides skills. Our model offers suggestions for various aspects of the processes underlying doctors' communication which can be education targets:

- The ability to pick up and interpret patients' clues.
- Having a correct set of beliefs about individual and groups of patients which supports understanding and prediction of patients' needs, preferences, and behaviour.
- The ability to choose goals that fit a consultation and to handle goal conflicts.
- The ability to select communicative actions that best fit the pursued goals for a particular patient.
- The ability to recognize and take account of the effects of one's own emotions and fatigue on patient care.

The choice to develop goal-related communication guidelines still leaves guideline developers with some important puzzles to solve when building new communication guidelines. The two most important ones are:

1. How to develop guidelines that can be combined when a GP has to meet more than one goal in a consultation.
2. How to develop guidelines that are not only tailored to GPs' goals, but also to patient characteristics.

But first and foremost, we need to a better understanding of the goals of doctors in consultations, in order to decide which goals require guidelines. Furthermore, there is the big challenge to develop and synthesize a body of evidence that can be used in literature studies and consensus discussions that will have to be conducted to provide a solid foundation for the development of goal-oriented communication guidelines. Little evidence is available at the moment, because communication research focuses neither on specific communication techniques nor on specific goals or outcomes measures, nor on the relationships between goals and techniques[44,4]. Therefore, communication research should investigate the effects of well-described interventions, testing combinations of small numbers of

communication techniques, or even individual techniques, in relation to well-described goals or outcome measures.

Conclusions

The study indicates that doctors' communication is situational and goal driven. Doctors consider both characteristics of individual patients and medical aspects of a consultation when selecting communicative actions. This points to a need to reconsider the use of generic communication guidelines and turn to goal-related communication guidelines, which are likely to be of more use for clinical practice. To help doctors achieve communicative competence tailored to the specific situation of each patient encounter, holistic communication training courses seem preferable to conventional communication skills training. To develop an evidence base to underpin the development of goal-related communication guidelines, studies are needed that research the effects of goal-related communication strategies.

Literature

1. Marvel MK, Epstein RM, Flowers K, Beckman HB. Soliciting the patient's agenda: have we improved? JAMA 1999;281:283-7.
2. Rhoades DR, McFarland KF, Finch WH, Johnson AO. Speaking and interruptions during primary care office visits. Fam Med 2001;33:528-32.
3. Levinson W, Gorawara-Bhat R, Lamb J. A study of patient clues and physician responses in primary care and surgical settings. JAMA 2000;284:1021-7.
4. Rogers MS, Todd CJ. The 'right kind' of pain: talking about symptoms in outpatient oncology consultations. Palliat Med 2000;14:299-307.
5. Maguire P, Faulkner A, Booth K, Elliott C, Hillier V. Helping cancer patients disclose their concerns. Eur J Cancer 1996;32A:78-81.
6. Britten N, Stevenson FA, Barry CA, Barber N, Bradley CP. Misunderstandings in prescribing decisions in general practice: qualitative study. BMJ 2000;320:484-8.
7. Kennelly C, Bowling A. Suffering in deference: a focus group study of older cardiac patients' preferences for treatment and perceptions of risk. Qual Health Care 2001;10 Suppl 1:i23-8.
8. Campion P, Foulkes J, Neighbour R, Tate P. Patient centredness in the MRCGP video examination: analysis of large cohort. Membership of the Royal College of General Practitioners. BMJ 2002;325:691-2.
9. Elwyn G, Hutchings H, Edwards A, Rapport F, Wensing M, Cheung WY, Grol R. The OPTION scale: measuring the extent that clinicians involve patients in decision-making tasks. Health Expect 2005;8:34-42.
10. Kurtz S, Silverman J, Draper J. Teaching and learning communication skills in medicine. Oxford - San Franscisco: Radcliffe Publishing; 2005.
11. Gysels M, Richardson A, Higginson IJ. Communication training for health professionals who care for patients with cancer: a systematic review of training methods. Support Care Cancer 2005;13:356-66.
12. Aspegren K. BEME Guide No. 2: Teaching and learning communication skills in medicine-a review with quality grading of articles. Medical Teacher 1999;21:563-70.
13. Pfeiffer C, Madray H, Ardolino A, Willms J. The rise and fall of students' skill in obtaining a medical history. Med Educ 1998;32:283-8.
14. Craig JL. Retention of interviewing skills learned by first-year medical students: a longitudinal study. Med Educ 1992;26:276-81.
15. van Dalen J, Kerkhofs E, van Knippenberg-Van Den Berg BW, van Den Hout HA, Scherpbier AJ, van der Vleuten CP. Longitudinal and concentrated communication skills programmes: two dutch medical schools compared. Adv Health Sci Educ Theory Pract 2002;7:29-40.
16. Hulsman RL, Ros WJ, Winnubst JA, Bensing JM. Teaching clinically experienced physicians communication skills. A review of evaluation studies. Medical Education 1999;33:655-68.
17. Cote L, Leclere H. How clinical teachers perceive the doctor-patient relationship and themselves as role models. Acad Med 2000;75:1117-24.
18. Haidet P, Dains JE, Paterniti DA, Hechtel L, Chang T, Tseng E, Rogers JC. Medical student attitudes toward the doctor-patient relationship. Med Educ 2002;36:568-74.
19. Jaye, C Egan T, Parker S. 'Do as I say, not as I do': Medical Education and Foucault's Normalizing Technologies of Self. Anthropology & Medicine 2006;13:141—55.
20. Veldhuijzen W, Ram PM, van der Weijden T, Niemantsverdriet S, van der Vleuten CP. Characteristics of communication guidelines that facilitate or impede guideline use: a focus group study. BMC Fam Pract 2007;8:31.

21. Silverman J, Kurtz S, Draper J. Skills for communicating with patients. Oxford - San Francisco: Radcliffe; 2005.
22. Makoul G. Essential elements of communication in medical encounters: the Kalamazoo consensus statement. Acad Med 2001;76:390-3.
23. Van Dalen J, Bartholomeus P, Kerkhofs E, Lulofs R, Van Thiel J, Rethans JJ, Scherpbier AJ, Van Der Vleuten CP. Teaching and assessing communication skills in Maastricht: the first twenty years. Med Teach 2001;23:245-251.
24. Veldhuijzen W, Ram P, van der Weijden T, Wassink M, van der Vleuten C. Much variety and little evidence: a description of guidelines for doctor-patient communication. Med Educ 2007;41:138-45.
25. de Haes H. Dilemmas in patient centeredness and shared decision making: a case for vulnerability. Patient Educ Couns 2006;62:291-8.
26. Bensing J, van Dulmen S, Tates K. Communication in context: new directions in communication research. Patient Education and Counseling 2003;50:27-32.
27. Wilson SR, Sabee CM. Explicating communicative competence as a theoretical term. In: Handbook of communication and social interaction skills Edited by JO Greene, BR Burleson. Mahwah, New Jersey: Lawrence Erlbaum Associates; 2003.
28. Brown RF, Bylund CL. Communication skills training: describing a new conceptual model. Acad Med 2008;83:37-44.
29. Maassen H. Interview met Jozien Bensing: gezond communiceren. Medisch contact 2006;61:1924-27.
30. Lyle J. Stimulated recall: a report on its use in naturalistic research. British Educational Research Journal 2010;29:861-78.
31. Schepens A, Aeltermana A, van Keer H. Studying learning processes of student teachers with stimulated recall interviews through changes in interactive cognitions. Teaching and Teacher Education 2010;23:457-72.
32. van Thiel J, Ram P, van Dalen J. MAAS-global manual. Maastricht: Maastricht University; 2000. http://www.hag.unimaas.nl/Maas-Global_2000/index.htm.
33. Green JO. Message production; advances in communication theory. Mahwah, New Jersey: Lawrence Erlbaum Associates; 1997.
34. Armitage CJ, Conner M. Efficacy of the Theory of Planned Behaviour: a meta-analytic review. Br J Soc Psychol 2001;40:471-99.
35. Ajzen I, Albarracín D, Hornik R. Prediction and change of health behavior: applying the reasoned action approach: Psychology Press; 2007.
36. Cappella JN. The role of discrete emotions in the theory of reasoned action and its successors: quitting smoking in young adults. In: Prediction and change of health behavior: applying the reasoned action approach Edited by I Ajzen, D Albarracín, R Hornik: Psychology Press; 2007.
37. Bensing J. Bridging the gap. The separate worlds of evidence-based medicine and patient-centered medicine. Patient Educ Couns 2000;39:17-25.
38. Epstein RM, Franks P, Fiscella K, Shields CG, Meldrum SC, Kravitz RL, Duberstein PR. Measuring patient-centered communication in patient-physician consultations: theoretical and practical issues. Soc Sci Med 2005;61:1516-28.
39. Dwamena FC, Gaulden C, Lewin S, Smith RC, Holmes-Rovner M, et al.: A systematic review for providers to promote a patient-centered approach. In: International conference on communication in health care; 2008; Oslo.
40. van Nuland M, Hannes K, Aertgeerts B, Goedhuys J. Educational interventions for improving the communication skills of general practice trainees in the clinical consultation. Cochrane Database of Systematic Reviews 2005, Protocols 2005.

41. van Nuland M, Goedhuys J. Effective educational interventions for improving the communication skills of general practice trainees. In: International conference on communication in health care; 2004; Brugge.
42. Kellermann K. Communication: Inherently strategic and primarily automatic. Communication monographs 1992;59:288-300.
43. Duffy FD, Gordon GH, Whelan G, Cole-Kelly K, Frankel R, Buffone N, Lofton S, Wallace M, Goode L, Langdon L. Assessing competence in communication and interpersonal skills: the Kalamazoo II report. Acad Med 2004;79:495-507.
44. Cegala DJ, Lenzmeier Broz S. Physician communication skills training: a review of theoretical backgrounds, objectives and skills. Med Educ 2002;36:1004-16.
45. de Haes H, Bensing J. Endpoints in medical communication research, proposing a framework of functions and outcomes. Patient Educ Couns 2009;74:287-94.