

Medical education

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

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Objective: To understand how recommendations for communication can be brought into alignment with clinical communication routines, we explored how doctors select communicative actions during consultations.

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

Results: A model describing how doctors select communicative actions during consultations was developed. This model illustrates how GPs constantly adapt their selection of communicative actions to their evaluation of the situation. These evaluations culminate in the selection of situation-specific goals. These multiple and often dynamic goals require constant revision and adaptation of communication strategies, leading to constant readjustments of the selection of communicative actions. When selecting consultation goals GPs weigh patients' needs and preferences as well as the medical situation and its consequences.

Conclusions: GPs' selection of communicative actions during consultations is situational and goal driven. **Practice implications:** To help doctors develop communicative competence tailored to the specific situation of each consultation, holistic communication training courses, which pay attention to the selection of consultation goals and matching communication strategies besides training specific communication skills, seem preferable to current generic communication skills training.

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1. Introduction

Although medical curricula pay considerable attention to patient-centered 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-centered methods, and hands-on training in using communication skills, have shown that medical students can be taught to show patient-centered communicative behavior in training 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]. This failure of communicative behavior to transfer to clinical practice has been interpreted as the corrupting effect of clinical practice. However, when starting from the positive assumption that doctors strive for high quality of care, a lack of transfer might also be explained by a gap between what doctors feel that they need from communication guidelines to deliver optimal care and

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the actual content of communication guidelines. There are indeed signs that communication guidelines are not in alignment with the needs and requirements of clinical practice. Communication guidelines have scored very low on ‘user involvement during development’ and ‘applicability’ [17]. GPs (general practitioners) involved in communication training stated 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’ [18]. Their main concern was that the guidelines were too generic for application in specific situations. Hence, they applied only parts of the guidelines and adjusted their communication strategies to the specifics of consultations [18]. In a similar vein, De Haes claimed that effective communication differs from situation to situation, and describes situations where patient-centered communication was not helpful and even detrimental [19], and Bensing et al. argued that communicative actions intended to achieve a goal can be counterproductive in achieving other goals [20]. 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 [21]. It is therefore not surprising that it has been suggested to develop specific guidelines, tailored to specific diseases or specific goals [22,23].

Although it seems clear that the current, mostly generic communication guidelines used in communication training [18,24–26] are not satisfactory, any change should be underpinned by research that examines which types of communication guidelines are best suited to clinical practice. As we believe that future communication guidelines should be based on how doctors approach communication, a preliminary step is to gain insight into the communication routines that are commonly used by doctors and how doctors select communicative actions during consultations. Therefore we firstly explored in this study which factors determine doctors’ communicative behavior and how these factors interact. Secondly, we aimed to synthesize these findings in a model describing how doctors select communicative actions and validate this by a comparison with the literature. Considering the paucity of information from studies on this topic we started with a qualitative study using in-depth interview methods.

2. Method

2.1. General design

Using a grounded theory approach, we recorded and selected GP consultations, which were then used as stimuli for stimulated recall interviews [27] with the GPs. We used a cyclical process of data collection-analysis-reflection, based on constant comparative methods and progressive focus.

2.2. Data sample

We purposively recruited GPs who varied in age, gender, number of working years and practice settings (urban or rural), as these characteristics might influence their communication [28]. Academic GPs were excluded to ensure that the participants were not involved in the teaching of existing communication guidelines. Of all the participating GPs a clinic was video-recorded and observed by one of two researchers (WV or JU). After the clinic, the researcher selected two consultations for the interview. The selection was intended to achieve maximum variation sampling regarding factors that are likely to influence GPs communication, such as patients’ age and gender [29], type of consultation (new complaint, repeat visit, chronic disease) [28], type of complaint (ICPC classification) [28] and the GP’s actual use of communication

techniques, which was assessed with the MAAS-global [30]. Sampling continued until several consecutive interviews did not yield additional information.

2.3. Interview

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 stopped the tape and asked the GP to reflect on his/her communicative action. All interviews were video recorded and transcribed verbatim.

2.4. Informed consent

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. All participating patients gave informed consent. All transcripts were anonymised.

2.5. 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 thematic code networks that depict the connections between codes representing higher and lower order themes [31]. Additionally, we identified each occasion when a communicative action was discussed during an interview. A communicative action was defined as a discrete behavior, verbal or non-verbal, meant to make/maintain contact with the patient and/or to convey a message. Important attributes of a communicative action are its meaning and its format, i.e. the communication technique used. To illustrate this: when one says: ‘Are you worried?’ the message is that the doctor wants to know whether the patient is worried, and the technique that is used, is asking a closed question. Our use of this term was derived from the term ‘speech act’ in linguistic theory [32], but broadened to include nonverbal actions.

For each communicative action, factors influencing its selection were examined and positioned in a scheme representing the selection process of that action. Based on these schemes and the code networks the research questions were answered. All the transcripts were analyzed independently by two of the authors (WV (GP) and KM (anthropologist)), who discussed any differences in codes and selection schemes after each analysis of a transcript until consensus was reached. The developed model was discussed in depth with all authors and with three academic GPs who were experienced researchers and/or teachers of doctor patient communication.

3. Results

3.1. The interviews

Fifteen GPs agreed to take 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 (33–59), work experience (2–27 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 years, ten were male, twenty female. Patients presented one to four complaints related to a total of nine different organ systems; musculoskeletal problems were most often mentioned. Interviews with GPs lasted 60–90 min. Per interview, between 10 and 24 communicative actions were discussed. Most of the discussed actions were verbal; participants reflected on the content of what they said, for example the trade-off between giving complete certainty that prognosis is good and honesty about diagnostic uncertainty, and they reflected on the format of their communicative actions, i.e. asking open ended or closed questions. A minority of the discussed communicative actions were nonverbal, such as nodding, smiling, or standing up to end the consultation. Data saturation occurred after eleven interviews, with further interviews showing repetitions of the observed phenomena, thereby confirming the results without adding new topics.

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 during consultations, they had difficulty reflecting forward on how this impacted their communication at that moment or later on in the consultation. 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 backwards and give causes and reasons for their behavior. 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.

3.2. Agreement

Agreement between the two researchers (WV and KM) on what constituted a communicative action and on factors that had a direct impact on the selection of a communicative action was easily reached, as both researchers' interpretations of the data were usually congruent and often even identical for this aspect. Factors with an indirect impact, which influenced important mediators such as GPs' goals in a consultation, were more difficult to identify and took more time to discuss.

3.3. Factors influencing the selection of communication techniques and their interactions

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. See Table 1. These factors and how they interact are described in more depth below.

3.3.1. Consultation goals

The GPs described a variety of goals they pursued during consultations. Examples 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 over-prescribing. 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 baseball'. (...) I think remarks like that always serve two purposes: obviously I want them to like me as a doctor and I

Table 1

The factors influencing the selection of communicative actions and how they do that.

Factors influencing GPs selection of communicative actions	The role of these factors in the selection of communicative actions
Generic goals	Prioritize and limit the set of consultation goals
Consultation goals	Prioritize and limit the set of communicative actions
Assumptions about patients	Inform the evaluation of goal relevance and feasibility and inform the evaluation of action preferability
Assumptions about medical status	Inform the evaluation of goal relevance
Time available	Inform the evaluation of goal feasibility and action practicability
Emotions and energy level	May influence all evaluations

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, male, 49 years, 20 years experience

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, female, 50 years, 18 years experience

Consultation goals are central to the process of selecting communicative actions. Generally, they 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.

3.3.2. Generic goals

Goals were often described by the GPs as part of their tasks within 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 framework of generic goals that represent the way GPs conceptualize their role as a doctor. Doctors' beliefs, norms, values, and social background are factors that influence these generic goals. Generic goals determine which consultation goals a GP considers to fall within his or her professional scope. The priority given to different generic goals determine which consultation-specific goals GPs are most likely to pursue.

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, male, 47 years, 3 years experience

3.3.2.1. 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 etiology, and how certain they

were that their assumptions were accurate. These assumptions influenced how GPs evaluated the importance of medical goals in comparison to other goals.

3.3.2.2. GPs' assumptions about patients as individuals. The GPs made a lot of assumptions about patients' personal characteristics. They had preconceptions about attributes they considered stable, 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. [GP2, male, 54 years, 25 years experience]

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. [GP3, male, 49 years, 20 years experience]

Based on patients' verbal and nonverbal communication and informed by previous experiences with a patient or similar patient groups, the GPs made assumptions about situational patient characteristics, such as patients' preferences, beliefs and emotions.

Assumptions concerning patient attributes and situational patient characteristics together with assumptions about the patient's medical condition were central to the GPs evaluations of the relevance and feasibility of situational goals. While generic goals determine the rough selections of consultation-specific goals, these selections were fine-tuned by GPs' evaluations. The quote underneath shows how assumptions about the patients wants and needs result in the goal wanting 'to help' the patient, which is in the end being discarded, because the result of the evaluation of the feasibility of this goal is negative.

This lady has an alcohol problem, depression and relationship problems. In the past we have made plans to use antidepressants 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.

GP6, female, 52 years, 20 years experience

Assumptions concerning patient attributes and situational patient characteristics influenced the GPs' assumptions about how a particular patient would behave during a consultation and would be affected by communicative actions. Based on these assumptions GPs evaluated the expected effectiveness of different communicative actions. Underneath a quote in which GP2 explains that he estimates that his usual reaction on a request for antibiotics in case of viral infection will not be effective with his current patient and that he therefore chooses a different line of action.

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].

GP2, male, 54 years, 25 years experience

3.3.3. The time available for a consultation

Time was an important factor. Many GPs felt that the constant demand to stay on schedule influenced their choice of communication technique. The GPs' perceptions of the available time depended on the amount of time scheduled for a consultation and their ability to stay on schedule. The time available influenced both GPs evaluations of the feasibility of goals and of specific communicative actions.

It was also because I was considerably behind schedule [that I paid less attention to her feelings]. 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 a cold?

GP1, male, 45 years, 12 years experience

3.3.3.1. GPs' state of mind: emotions and energy level. The use of communicative actions 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, led to more directive and less exploratory communicative actions, whereas positive emotions led to non-directive behavior. Emotions and energy levels seemed to influence all evaluations GPs make, both those related to the relevance of different goals and those related to feasibility and expected effectiveness of goals and communicative actions.

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, male, 54 years, 20 years experience

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. They suggested that GPs might think it unprofessional to allow their behavior toward 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.

3.4. Synthesis of the results

3.4.1. 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 (Fig. 1). The generic goals, which are listed on the left-hand side of the model are already present before the consultation and are not affected by the specifics of individual consultations. Early in the consultation and sometimes even before the consultation, GPs start to evaluate their preferences for and feasibility of specific goals 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

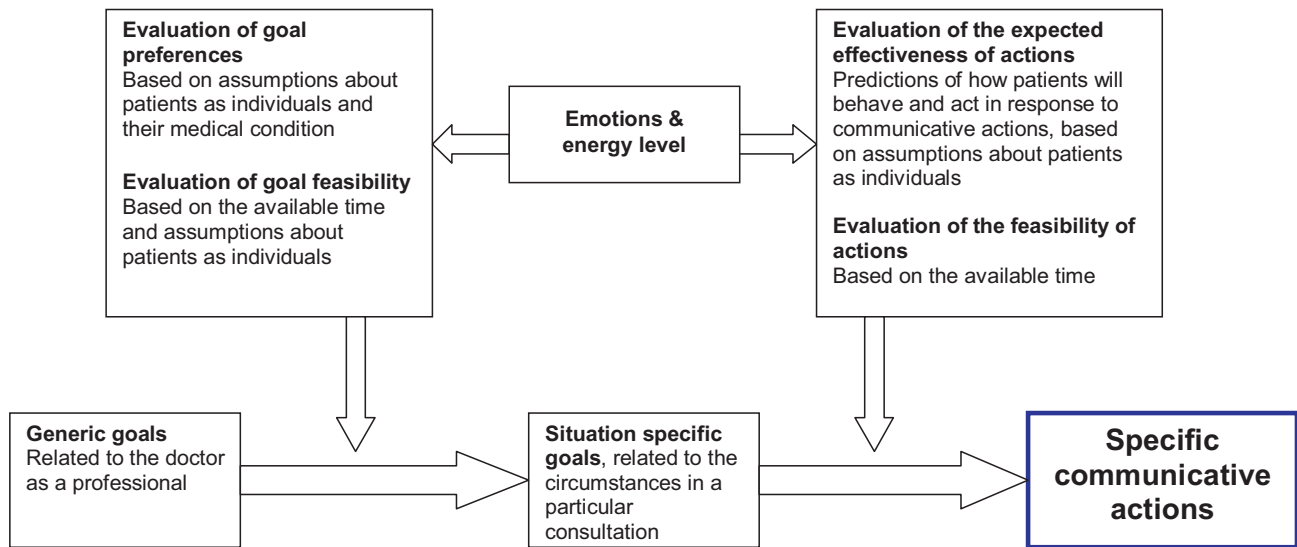


Fig. 1. The goal directed communicative action model, moving from generic goals to specific communicative actions.

actions. All evaluations can be affected by GPs' emotions and energy levels. 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.

3.4.2. Validation of the model

We compared our model to communication theory and general theory on how behavior originates. The dominant theories on how communicative actions come about, i.e. message production theories, 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 [21]. 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 illustrates 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.

We also compared our model to TPB (theory of planned behavior), because it is one of the best validated theories on the establishment of behavior [34]. According to TPB, attitudes toward certain behavior, subjective norms, and perceived behavioral control together produce an intention to enact a specific behavior. Given sufficient behavioral 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 behaviors occur shortly after the intention is formed. 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 behavioral intentions; they were probably enacted immediately and then forgotten. The factors that influence behavioral intentions according to TPB are represented in our model. In the model the selection of GPs' generic goals is based on attitudes toward behaviors and on subjective norms. Evaluations of goal relevance and the expected effectiveness of actions can be

interpreted as evaluations of behavioral beliefs and subjective norms. Similarly, evaluations of goal feasibility and action practicability can be interpreted as perceived behavioral control. 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 behavior independently of intentions and suggestions have been made to expand TPB with the influence of emotions [36].

4. Discussion and conclusions

4.1. Discussion

4.1.1. Main findings

This study is a first attempt to describe how doctors select their communicative actions during consultations. It shows that GP-patient communication is goal-directed and that GPs constantly adapt their selection of communicative actions to their evaluations of patient characteristics and their medical condition. 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 behavior, communicative behavior in particular, such as the theory of planned behavior and message production theories [21,33,35]. Discrepancies between our model and theory seem to be associated with the nature of consultations where communicative actions have to be selected quickly and communicative behavior is constantly adjusted as new information arises during a consultation.

4.1.2. Strengths and limitations

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 consultations. However, we could 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, for example the influence of GPs competence in communication on their selection of actions. It is therefore important that the model should be verified in further observational studies.

4.1.3. Findings in relation to the literature

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’ [19,37,38]. 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. Our model depicts 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 easily implemented by doctors than generic ones. This notion is supported by provisional review data which showed that, compared to generic training, situation-specific communication training is associated with more changes in doctors’ behavior 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 goal driven communication guidelines [22]. 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 giving emotional support, a guideline for supporting lifestyle change, etc. Additional theoretical support for the notion that doctor–patient communication is goal driven can be found in papers by de Haes [42] and Hulsman [43].

4.2. 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. To be in alignment with current clinical communication routines communication guidelines need to be situation specific, and preferably goal driven.

4.3. Practice implications

In addition to suggestions for communication guidelines, implications for communication skills training can be derived from our model. Currently, the main focus is on general skills training, i.e. experts have predefined which communicative actions are relevant to consultations in general and doctors are trained and assessed to perform these actions in a consultation. 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 pre-defined 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 [44]. For communication training to be effective it probably needs to take a more holistic approach to communicative competencies, including knowledge, beliefs and ethical considerations, besides skills. Our model offers suggestions for various aspects of the processes underlying doctors’ communication which may 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 behavior.
- 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 into account 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 challenges when building new communication guidelines. The two most important ones are: developing guidelines that can be combined when a GP pursues several goals in a consultation, and developing guidelines that are tailored to GPs’ goals and to patient characteristics. But first and foremost, we need more knowledge on which goals doctors pursue in consultations, in order to decide which goals require guidelines. A big challenge is to develop and synthesize a body of evidence that can be used to provide a solid foundation for the development of goal-oriented communication guidelines. Little evidence is available at the moment, because communication research tends to focus neither on specific communication techniques nor on specific goals or outcomes measures, nor on the relationships between goals and techniques [42,45]. 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.

Competing interests

The authors declare that they have no competing interests.

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