The European Health Psychologist, 2026, pp. 1–5

doi: 10.62696/yc1sgr84
EHP Regular Issue, Volume 25, Issue 4
Article

ARTICLE

Anatomy of a consultation. Unraveling patient-provider communication

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Abstract

Good communication between patients and their healthcare providers is widely regarded as essential for providing high-quality care. This raises the question of what constitutes 'good' communication. In this paper, I discuss how scholars have argued that good communication should be patient-centred and goal-oriented, and more recently, support shared decision-making. Using examples of research, I will then unravel 'the anatomy' of a consultation, illustrating what patient–provider communication actually looks like in clinical practice. I focus on information provision and decision-making, including some of the challenges that patients and providers face when trying to have a patient-centred, goal-oriented conversation. Additionally, I will demonstrate how communication can positively affect desired patient outcomes, such as patients' memory of the information provided to them. Finally, I will discuss the possible implications of emerging health technologies for the interaction between patients and their providers.

Key words: patient-provider communication, patient-centered communication, shared decision making, information provision

The title of this paper is inspired by a painting by the Dutch artist Rembrandt van Rijn: The Anatomy Lesson of Doctor Nicolaes Tulp. The painting depicts Dr Nicolaes Tulp demonstrating the muscles of a recently executed criminal's forearm during a lesson in human anatomy. By dissecting the human body, Dr. Tulp sought to answer fundamental questions, such as what structures lie beneath our skin and how do they function. The image demonstrates how medical science has advanced through the meticulous study of the human anatomy. Similarly, this contribution aims to unravel communication with patients. For optimal medical care, a systematic understanding of how bodies work is insufficient; knowledge about how communication with patients unfolds is at least as important.

Where do we come from?

The insight that the way care professionals' communicate affects patients' health is not very new. It is suggested that as early as 400 BC Hippocrates wrote that *"The patient, although conscious that his condition is perilous, may recover his health simply through his contentment with the goodness of the physician"* ("Hippocrates. Precepts VI" in Reiser et al., 1977). More recently, Hippocrates' observation was confirmed by a meta-analysis demonstrating that physicians who adopt a warm, friendly and reassuring manner are more effective than those who keep consultations formal and do not offer reassurance. This phenomenon is known as the placebo effect: a genuine psycho-biological event which can be attributed to the overall therapeutic context, including communication between patients and care providers.

Despite the teachings of Hippocrates, before the 1950's scholars paid little attention to clinicians' interactions with patients. This changed when the psychiatrist Balint argued that doctors should consider the whole person, not only their body, when looking for a diagnosis (Balint, 1955; Balint et al., 1969). To get to know the whole person would require communication. Byrne and Long were among the first to conduct empirical research on patient-provider communication (Byrne and Long, 1976). Based on recordings of consultations, they categorized general practitioners' behavior as either doctor-centered or patient-centered. Doctor-centered behavior included e.g. closed questions, or providing opinions, whereas patient-centered behavior involved using open questions or providing information in response to patients' questions. The inherent assumption was that patient-centered behaviors should be encouraged, whereas doctor-centered behavior should not. Their vision of the consultation was of a health care provider guided by patients' experiences, knowledge, and autonomy, while medicine came to be viewed as paternalistic and therefore problematic (Pilnick, 2022).

At the beginning of the 21st century, de Haes and Bensing concluded that the ideological basis of patient-centered medical care was better developed than its evidence base (de Haes and Bensing, 2009). They argued that patient-centered communication is often used as a container concept, meaning that too little attention is paid to which specific aspect of communication (what, when or how) is associated with patient outcomes. They proposed a goal oriented framework of relevant goals and endpoints for medical consultations, to enable the systematic study of the effects of specific elements of medical communication, such as e.g. the use of open questions. Their framework distinguishes six goals for consultations: fostering the relationship, gathering information, providing information, (shared) decision making, enabling treatment and disease related behavior, and responding to emotions.

Depending on the goal, different communication approaches might be relevant. The framework was later updated to include dealing with uncertainty as a separate goal (Street and De Haes, 2013).

This addition was in line with the growing recognition of the pervasiveness of uncertainty in medicine, amongst other due to rapid technological developments (Han et al., 2019). These developments have yielded vast amounts of new biomedical knowledge, that may however be difficult to interpret. Moreover, the rise of evidence-based medicine has paradoxically increased awareness of what is still unknown. Recognizing that much in medicine remains uncertain, health care providers are increasingly called upon to communicate such uncertainty to their patients, to support patient autonomy. Hence, communication of uncertainty is an aspect of patient-centered communication.

Uncertainty is very much acknowledged in the model of shared decision making (SDM). In SDM, patients and clinicians work together to determine the most appropriate healthcare decision for this patient. SDM is recommended in those situations where, from a medical point of view, there is not one best solution, as there are two or more reasonable options to reach the desired outcome (Stiggelbout et al., 2015). In other words, there is equipoise. SDM recognizes the uncertainty inherent in many treatment decisions, since options differ in benefits and harms (Pieterse et al., 2026). Moreover, benefits and harms cannot be predicted with 100% certainty. In line with a patient-centered approach, SDM is a way to do justice to patient autonomy by involving them in the decision making process. This process comprises four consecutive steps: 1) creating decisional awareness, 2) providing information about each reasonable treatment option, 3) deliberation, i.e., weighing pro's and cons taking patients' values, preferences and goals into account and 4) taking or deferring a decision (Stiggelbout et al., 2015).

Both patient-centered communication and SDM have developed into the normative model for clinical practice, because of the core element of doing justice to patients' autonomy. However, the dominance of patient-centered communication and SDM as hallmarks of high-quality medical care has been nuanced or even criticized by scholars and healthcare professionals. For example, patient-centered communication, which prioritizes patient autonomy, can be problematic when conflicts arise between the moral principles of supporting autonomy and beneficence (i.e., doing good and avoiding harm) (Mol, 2008; Pilnick, 2022). A patient may, for instance, indicate not wanting to receive information about their prognosis, whereas the clinician knows this knowledge would help to organize appropriate care. While a clinician 'overruling' a patient's wishes may be judged as not acting in a patient-centered way, the choice to provide at least some information can be recommendable from the perspective of beneficence. With regard to SDM, clinicians and scholars highlight the risk of abandoning patients when clinicians do not provide clear treatment recommendations, particularly patients who do not wish to participate in decision making or are unable to do so (Gulbrandsen et al., 2016; Huijgens et al., 2025). Since it is difficult for patients to weigh up the disadvantages and advantages of one uncertain future against another, having a say in treatment decisions can be burdensome for them.

The foregoing largely regards reflections on what good patient-provider communication should look like. Yet, to improve communication, research first needs to clarify what actually happens during medical encounters. Subsequently, we need to determine whether the communication displayed is effective in relation to its goals. In other words, insight into the anatomy of the consultation is needed. Here, I share some findings of our own research group, focusing on the goals of providing information and shared decision making.

Providing Information

In observational studies, using recordings of consultations, we found clinicians to infrequently invite questions or to check their patients' understanding before or after the consultation. Questions are most often invited only once, usually at the end of the consultation, and typically in the form of a closed question, such as "Do you have any questions?" (Pieterse et al., 2016; Visser et al., 2019a). We also found that clinicians poorly tailor their information to their patients' needs. To illustrate, radiation oncologists matched the amount of information with patients' information needs in only 51% ($k = 0.07$) of consultations, which is like flipping a coin (Douma et al., 2012). It is obviously easier for clinicians to tailor information to patients' needs when patients express what information and support they require. Unfortunately, it is a consistent finding that patients' participation to consultations is relatively limited. To illustrate, patients and caregivers in dementia diagnostic consultations rarely expressed what kind of information or how much they preferred during the consultation, whereas after the consultation a quarter preferred more information (Visser et al., 2019a). In internal medicine consultations, we saw significant variation in the number of questions patients asked, with some asking none and others asking many (Zandbelt et al., 2006).

Using an experimental video-vignette design, we investigated the impact of oncologists' emotion-oriented communication on participants' recall of medical information as provided during a consultation involving bad news (Visser et al., 2019b). Participants were randomly allocated to one of three conditions: 1) standard communication, 2) the clinician using emotion-oriented silence, and 3) the clinician using emotion-oriented speech. Both emotion-oriented silence and speech enhanced information recognition compared to standard communication. This led us to conclude that clinicians can support patients' information processing by using attentive silence as well as by acknowledging, exploring, and making empathic and supportive statements.

In another video-vignette experiment, participants were randomly assigned to one of seven conditions: one basic condition and six emphasizing a communication strategy (Fruijtier et al., 2025). All showed a consultation between a neurologist and a patient with mild cognitive impairment (meaning they were at an increased risk of developing dementia), during which the neurologist disclosed positive (PET) scan results. The conditions in which the clinician used best practices for communicating dementia risk, provided emotional support, or used the teach-back method, resulted in the highest level of information recall among participants. Importantly, communicating dementia risk according to best practices led to the highest uncertainty scores in participants. Apparently, better understanding of the conveyed message (in this case an increased *risk* of dementia, not a certainty) increases patients' experienced uncertainty about the disease and the prognosis thereof. This highlights a dilemma for clinicians: informing patients in a way that supports patients' understanding may at the same time increase their awareness of uncertainty. Clinicians may wish to be honest and transparent about uncertainty for ethical and transparency-related reasons, yet also wish avoiding evoking negative feelings in their patients as they may fear that conveying uncertainty reduces perceived medical competence, undermines trust and introduces anxiety (Parascandola et al., 2002). However, uncertainty may benefit patients too, by leaving room for hope, providing a way of coping with a potentially negative outcome (Hillen et al., 2017).

Shared decision making

What does SDM look like in actual practice? We analyzed the degree of shared decision making in audio-recordings of consultations of oncologists with a simulated patient, i.e., with an actor who took on the role of a patient (Bos-van den Hoek et al., 2023), and in real life consultations (Henselmans et al., 2019). In both studies we used the OPTION-12, a validated, frequently used rating scale to score SDM. In both studies we found considerable room for improvement in clinicians' SDM behavior, with scores of 43.13 and 29.50 respectively, on a scale from 1-100.

One of the premises of SDM is that treatment options should be presented in a balanced, neutral way to not influence the decision in a specific direction, thereby undermining patients' autonomy. We examined in an observational study the way information was provided during consultations with breast cancer patients who had to decide whether or not to start chemotherapy and additional hormone therapy to reduce the risk of the cancer returning (Engelhardt et al., 2016). We found clinicians using communication practices that could be qualified as implicitly steering patients' decision towards one of the options. For example, they used phrases such as '*It's just a little pill a day*' or '*Well, aspirin has side-effects too*', belittling the impact of hormone therapy. Such steering is likely due to clinicians' own preference for a treatment option, or to alleviate patients from 'the burden of choice'. As mentioned, clinicians may feel that patients may be burdened by having a responsibility for a treatment choice.

In a randomized controlled trial, we investigated the impact of 10 hours of face-to-face communication skills training on clinicians' SDM skills. This intervention significantly improved clinicians' SDM during actual consultations (Henselmans et al., 2019) with the greatest impact observed for the way clinicians set the agenda and provide information. Importantly, patients of trained clinicians reported feeling more involved in the decision making process than patients of untrained clinicians. Since the face-to-face training was rather time intensive for busy clinicians, we next investigated whether a more comprised, four-hour blended learning (incorporating e-learning and one online face-to-face training session), could also be effective (Bos-van den Hoek et al., 2023). Using a one-group pre-posttest design, we found a large and significant effect of the blended learning on observed SDM during consultations with simulated patients, for all four SDM steps.

What will be next?

Digital health technology is widely promoted as part of the solution to the challenges facing healthcare, such as rapidly aging populations, increasingly more people living with a chronic condition, and a reduced workforce. Examples of such technology for patients include the use of chatbots, electronic patient records, decision aids, wearable monitoring devices or health apps. Clinicians may offer patients video consultations and/or can use AI based prediction models for treatment outcomes personalized to individual patient characteristics, allowing for more precise information. Furthermore, large language models can convert complex information, such as test results, into lay text, meaning that clinicians no longer need to act as intermediaries to clarify information.

Many of these developments are exciting and offer promising benefits, such as improving accessibility, efficiency, and patient-centered care (ElKefi and Asan, 2021). Patients generally appreciate video consultations because they do not have to travel and can have the consultation in the privacy of their own home, with their partner or other relatives present (Zandbelt et al., 2016). Decision aids have been shown to be effective in supporting SDM, and monitoring devices in providing a sense of control and reassurance. In other words, technology can support patients' autonomy and empowerment. However, health technology may also pose potential risks. Online health information, particularly obtained via social media, may contain misinformation and disinformation (Rubinelli, 2025). Health professionals are thus increasingly challenged to inform and counteract low-quality information during their consultations. Moreover, as healthcare becomes increasingly technology-reliant, disparities in health- and digital literacy risk exacerbating existing health inequities (Smith and Magnani, 2019). Lastly, clinicians express concerns about losing personal connections with patients when using digital health solutions, which negatively affects their job satisfaction (Oudbier et al., 2024).

To conclude

Good communication between patients and their healthcare providers entails providing information tailored to patients' information needs and information processing abilities to support patients' autonomy. This requires healthcare providers to actively invite patients' questions and to check patients' understanding. Moreover, in the context of shared decision making, information should be neutral, meaning that the healthcare provider's choice of words does not steer patients towards the treatment option preferred by the clinician. Yet, striking a balance between clear and honest information on the one hand and avoiding burdening patients on the other is challenging. Lastly, it remains to be determined how technology may support communication, without replacing the human interaction that is required for truly humanistic patient-centered care. To make technology as supportive as possible, we need to continue to unpack the anatomy of face-to-face interactions between health care providers and their patients.

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