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Research Paper

Tailoring the orthopaedic consultation: How perceived patient characteristics influence surgeons' communication

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ABSTRACT

Objective: To investigate whether and how orthopaedic surgeons tailor communication during medical consultations based on perceived patient characteristics.
Methods: Seven orthopaedic surgeons were repeatedly interviewed following an approach based on ecological momentary assessment. Qualitative content analysis was used to analyse the eighty short interviews. The association between patient characteristics and tailoring approaches was explored in a correspondence analysis of the counted codes.
Results: Surgeons estimate patients' competence (illness management and communication abilities), autonomy, and interpersonal behaviour. They report tailoring communication in two-thirds of the consultations. The surgeons' perception was associated with the employment of specific approaches to communication: (1) high patient competence with extensive information provision or no changes in communication, (2) less autonomy and less competence with reassurance and direction, (3) high autonomy with discussions about pace and expectations, and (4) high sociability with communication about personal circumstances and wishes.
Conclusion: The surgeon's perception of a patient influences communication during consultations. Future research should address whether these intuitively employed approaches are appropriate, effective, and generalizable to other medical specialists.
Practice implications: Tailoring physician-patient communication can improve its quality. The novel approaches identified in this study can be used to formulate and test formal guidelines for tailored communication.

1. Introduction

During perioperative care, patients meet with their physicians over the course of several medical consultations to discuss treatment options, evaluate surgical outcomes and monitor physical rehabilitation. Effective communication during these consultations contributes to the patient's health outcomes [1]. In general, effective physician-patient communication is characterised by the physician expressing empathy and asking questions about the patient's perspective while the patient expresses his opinion and fully participates in the discussion [1]. To improve communication, communication skills training is being introduced to practice for both patients and physicians [2–4]. Some of these training courses focus on increasing the physicians' ability to adjust their communication to each individual patient. In this process, known as tailoring, information about an individual is used to determine the appropriate content, context and channel of communication, which is expected to increase its impact [5]. Physician-patient communication that is tailored, for example to patients' preferred level of participation in decision making or preferred amount of information, enhances coping, reduces anxiety, and increases satisfaction after surgery [6–8].

To support physicians in tailoring communication to different patients, tools have been developed that assess patient characteristics prior to the consultation and suggest suitable communication strategies [9–12]. Such tools are developed under the assumption that physicians are able and willing to adapt their own communication approach when provided with objectively assessed patient characteristics. Contrarily, analysis of physicians' communication patterns suggests that while physicians demonstrate the ability to adjust communication to different situations, they are also quite consistent in their interaction style [13,14]. Thus,

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a physician who uses objective tools to assess patient characteristics will likely integrate both their tried-and-tested approaches to communication and the tool's suggestions into one communication strategy. To formulate communication guidelines that integrate objective assessment with physicians' own intuitive approaches to tailoring, systematic understanding about the latter topic is needed.

The few studies available on intuitive tailored communication demonstrate that physicians' perceptions of patients influence information exchanges [15,16]. However, the chances that the tailored information provided by the oncologists under study actually matched patients' information needs was "comparable to flipping a coin" [16]. Apparently, patients' actual preferences do not cause physicians to provide information differently, but it remains unclear what did. In addition, little is known about the tailoring behaviour of other medical specialists.

Insight into the intuitive tailoring behaviour of orthopaedic surgeons may be especially important. Orthopaedic surgeons' serve a large diversity of patients who find high communication quality particularly important compared to other patient groups such as breast cancer and diabetic patients [17,18]. Furthermore, the elective nature of most orthopaedic interventions means that a substantial part of the consultation is reserved for (shared) decision-making. While Dutch national guidelines recommend discussing expectations with patients and providing them with tailored information, no universal, clear protocol for these physician-patient interactions is in practice yet [19,20]. Due to the variety of patients, the emphasis on tailored communication, and the absence of strict protocols to guide said communication, intuitive tailoring likely occurs during orthopaedic consultations.

To further explore how specialists tailor communication during medical consultations, the current paper investigated how orthopaedic surgeons form a perception of a patient, and how they perceive they tailor communication consequently. We were specifically interested in investigating whether the surgeons' perception was associated with the employment of specific approaches to communication.

2. Methods

2.1. Ethics

This study was approved by the Research Department of Orthopaedics and Traumatology, Reinier de Graaf Hospital, Delft, The Netherlands and the Human Research Ethics Committee of Delft University of Technology, Delft, The Netherlands. Patients were observed during the consultation, but as the focus of the study lay with understanding the surgeons' perspective on tailoring, they were not interviewed. Therefore, only surgeons provided written informed consent for their participation in the interviews, while their visiting patients verbally consented to observation of the consultations.

2.2. Participants and context

The full chirurgical team of the department Orthopaedics and Traumatology in a Dutch public hospital (Reinier de Graaf Hospital, Delft, The Netherlands) was contacted for participation in the study. All invited surgeons agreed to participate, resulting in a convenience sample of seven surgeons included in the study. The surgeons did not receive an incentive for participating in the study.

Surgeons in this centre perform surgeries as well as patient consultations. They typically saw 30–35 patients a day in a mix of first, repeat and telephonic consultations. Most consultations were dyadic exchanges and lasted between 5 and 25 min.

2.3. Procedure

We employed an explorative, qualitative approach to understand tailoring of communication from the surgeons' perspective. Our approach consisted of conducting semi-structured interviews in the normal working environment of the surgeons following an interview technique based on ecological momentary assessment (EMA) [21,22].

To capture the tailoring process in context we based our interview technique on EMA. EMA is an approach to collecting data which aims to provide insight into how processes vary over time and persons, while tackling some of the issues known to self-reported data such as recall bias and poor ecological validity [21,22]. In essence, it entails collecting data while subjects go about their daily routines by repeatedly prompting them to reflect on current feelings (for a complete overview of the methodology see [22]). For EMA, it is required that data collection is contextualized, random, repeated, and momentary [21,22].

The first author was present in the orthopaedic clinic on eight regular working days between January and March 2016. She shadowed one to two surgeons per day and was present during most consultations (total 171), with the exception of telephonic consultations and consultations with patients under 18 years. At the start of each day, up to ten consultations were randomly selected (using a random integer generator [23]) and marked on the researcher's copy of the clinic schedule for a follow-up interview. The surgeons were not informed of the consultation selection. To ensure that surgeons remained unaware of the selection, the researcher was also present during consultations that were not selected for follow up. During all consultations, field notes were taken of the surgeon's behaviour and surgeon-patient interaction to later compare these to the surgeon's account of the consultation. Finally, clinic schedules were used to identify demographics of the patients and the type of consultation. We refer to *first consultations* if patients had not visited the surgeon before.

To ensure that the data collection was momentary, the surgeon was interviewed directly after selected consultations, after the patient had left the consultation room. These short interviews were audio-recorded and lasted 2–4 min. Investigation into the surgeon's perception of the patient was initiated by asking "*What type of patient did you think this was?*" To examine how surgeons inferred patient characteristics we asked "*On what grounds did you base this?*" and to examine whether and how this was incorporated in the consultation we asked "*Did your approach to the consultation change according to your view of the patient?*"[1] The surgeons were not provided a specific definition of tailoring.

Data collection was stopped after 80 interviews when saturation of the data was reached (e.g. additional gathering of data did not result in new theoretical insights [24]) and each surgeon had been interviewed at least 10 times (mean interviews per surgeon = 11.4). Overall, the EMA interview technique was endorsed by the surgeons as it invited them to directly reflect on practice and did not interfere with the outpatient clinic schedule.

2.4. Data analysis

The 80 interview transcripts were compared to the 80 corresponding field notes. No discrepancies between the reported and observed behaviour were found, and the interviews were thereafter used as the primary unit of analysis in conventional

[1] Original questions in Dutch: *"Wat voor type patiënt denkt u dat dit is?", "Waar baseert u deze typering op?", "Heeft u op basis van deze typering uw aanpak aangepast ?","Zo ja, hoe?".*

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