Oral information in orthopaedics: How should the patient's understanding be assessed?

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A B S T R A C T

Introduction: Patient information is governed by recommendations of best practices required from any healthcare professional. The aim of this study was to design a tool to measure patient comprehension of the information provided during a surgical consultation before a scheduled surgery.

Material and methods: This was a single-center prospective study of 21 patients using a rating scale-type visual analog scale. Each patient was interviewed and asked to score his or her understanding of the information provided. The investigator checked the external validity of the tool using questions to assess patient's understanding level.

Results: The results show that there is a tendency to overvalue some information (reasons for the intervention and alternatives to surgery) and that certain information is not understood (risks and complications) or not provided (postoperative follow-up).

Conclusion: This study confirms that a rating scale can measure the understanding of information and there is a variation between perceived and actual understanding.

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1. Introduction

Providing patient information to obtain informed consent for a surgical act is a legal obligation. Providing this information is the responsibility of all healthcare professionals within their area of expertise as is respecting the professional regulations that are applied to them [1–3].

Article L. 1111-2 of the Public Health Code (France) details the components of the information to transmit to the patient. The information should be clear, loyal, and appropriate, i.e., it should allow the patient to duly consider the matter before making a decision. This assumes that the surgeon has verified that the patient has indeed understood the explanation [4]. The surgeon is responsible for any breach of the duty to inform and is liable to repair any harm caused [5,6].

Recent judicial changes tend to reinforce the conditions of information delivery and seem to no longer be satisfied with a consent form signed by the patient [4].

The Haute Autorité de santé (French National Authority for Health; HAS) recommendations for good practices clarify this [2]: “The file containing health information relative to the person mentions the major information that has been delivered to the patient, by whom and the date, as well as any difficulties encountered when delivering the information. If need be, it mentions any actions undertaken when the person […] presents communication or comprehension problems.” These specifications allow healthcare professionals to ensure that the information delivered is coherent.

Proof that the information has been given to the patient is an important aspect from a medico-legal viewpoint. The surgeon is responsible for providing proof that the patient has been clearly informed (Cass.1ier Civ. 25 Feb. 1997. no. 94–19.685 Hédreul; CE, 5 janv. 2000. req. no. 181899). Moreover, the surgeon must ensure that the patient has understood the information well, yet the notion of comprehension is part of the patient’s experience, which is not directly accessible to physical measurement. Quantification of comprehension must therefore be measured subjectively and in healthcare is usually based on different tools founded on a psychometric approach or a behavioral approach. For the purposes of this study, we chose the psychometric approach, which allows the use of a simple tool.

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The objective of this study was to create a scale measuring the comprehension of the information delivered to the patient during a surgical consultation before a scheduled surgery.

2. Materials and methods

A single-center prospective study was conducted in an orthopaedic surgery consultation in a university hospital center. This consultation was the last one before the decision for surgery. The patients were assessed after the consultation and had not received any written information. The study took place over a 2-month period.

The patients included in the study were all over 18 years of age, consulting for surgical advice within a scheduled shoulder, knee, or hip arthroplasty. Patients who could not express their opinion, those under judicial or administrative detention, under 18 years of age, and those refusing the surgery proposed were all excluded from the study. The interviewer was present at all consultations.

An analogical scale was specially created for this study. It responded to a grid of questions elaborated based on the SOF-COT conference [7–9] formalizing the mandatory information to be transmitted to the patient. The scoring grid contained seven questions on the motives for the intervention (Q1), the type of material that would be implanted (Q2), alternatives to surgery (Q3), the risks and complications related to the surgery (Q4), the preoperative exams (Q5), the rehabilitation conditions (Q6), and the surgical follow-up after the intervention (Q7) (Appendix A).

The scale was proposed to patients upon leaving the consultation to score their comprehension of the information. When patients finished their self-evaluation, the interviewer reviewed each of the scale’s items and verified the patient’s comprehension using a questionnaire comprising the criteria that the patient should be able to reproduce (Appendix A). The number of criteria reproduced (even in layman’s language) determined the degree of patient’s comprehension: less than one criterion: no comprehension (score = 0/10), one to two criteria: fragmentary comprehension (score = 5/10), more than three criteria: detailed comprehension (score = 10/10).

The patient’s self-evaluation scores were compared with the evaluation scores by the interviewer, resulting in an overall patient comprehension score containing four scores: accurate estimation, underestimation (the patient believes he has not understood but has understood), overestimation (the patient thinks she has understood but has not understood), patient not informed (the patient has not received the information). The responses were anonymous and participation in the study was voluntary.

3. Results

A total of 21 patients were included in the study. The mean age was 69.6 years [30; 79]. The majority of the patients were female (57.1%). All patients accepted to self-evaluate (SE) their comprehension of the information and accepted to respond to the interviewer’s questions. Concerning question 1, “motive for the intervention,” 13 patients (61.9%) declared they had understood. During the rater evaluation (RE), the interviewer found only eight patients who had understood (38.0%) and 13 who had not understood.

For question 2, “type of material to be implanted,” 13 patients (61.9%) said they had understood the information. The interviewer deemed that all the patients had understood the objective of the intervention and the corresponding material to be implanted.

For question 3, “the alternatives to surgery,” seven patients stated they had understood everything, and the interviewer identified three patients who had understood everything and seven who had not understood. Eleven patients had not been informed.

As for question 4, “the risks of complications related to the intervention,” six patients (28.6%) said they had understood. The interviewer had 11 patients (52.4%) who had understood little or nothing and four patients (19%) who had not received the information.

For question 5, “preoperative exams,” nine patients (42.8%) said they had understood. The interviewer counted 13 (61.9%), and three (14.3%) who had not received the information.

Concerning question 6, “rehabilitation process,” four patients (19.1%) thought they had understood, whereas the interviewer counted five (23.8%), and ten (47.6%) who had not been informed. One patient had understood the follow-up after surgery, whereas four (19.1%) had not understood at all and 16 had not received the information on this item.

All the results are summarized in Table 1.

4. Discussion

This study showed that it was possible to use a psychometric scale to quantify the comprehension of information by the patient. The comparison of the patient’s self-evaluation and the rater-administered evaluation showed that patients can overestimate or underestimate their comprehension, confirming the study reported by Ghrea et al. [10]. The present study shows that patients have a strong tendency to overestimate their comprehension (the patient says she has understood the information well or very well, whereas the rater scores the patient as having understood little or not at all), which illustrates the subjectivity of the notion of comprehension and which could be explained by the fact that the patient obtained the information he expected in order to provide consent. We could not confirm, however, patients’ satisfaction since this was not assessed in this study.

The most overestimated items were the motive for the intervention and the alternatives to surgery. However, the study brings out patients’ underestimation (the patient says she has not understood the information or very little, whereas the rater scores that she has understood the information well), notably for the following items:

<table>
<thead>
<tr>
<th>Table 1</th>
<th>Comparison of patient self-evaluation scores and rater evaluation scores.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Score</td>
<td>[0–5]</td>
</tr>
<tr>
<td>---------</td>
<td>-------</td>
</tr>
<tr>
<td>Q1 Indication n (%)</td>
<td>0</td>
</tr>
<tr>
<td>Q2 Type of material implanted n (%)</td>
<td>0</td>
</tr>
<tr>
<td>Q3 Alternatives n (%)</td>
<td>0</td>
</tr>
<tr>
<td>Q4 Risks and complications n (%)</td>
<td>0</td>
</tr>
<tr>
<td>Q5 Preoperative exams n (%)</td>
<td>0</td>
</tr>
<tr>
<td>Q6 Rehabilitation n (%)</td>
<td>1 (4.76%)</td>
</tr>
<tr>
<td>Q7 Postoperative follow-up n (%)</td>
<td>0</td>
</tr>
</tbody>
</table>

SP: scored by patient; SR: scored by rater.
name of the material to be implanted, preoperative examinations, and rehabilitation.

The time granted for the study allowed us to meet with only one of the surgeons and a limited number of patients. The tool remains to be validated with a larger population of surgeons and patients.

The interpretation of the results should take this limitation into consideration.

The comprehension of the preoperative information by the patient is the knowledge he may have on the different aspects transmitted by the surgeon. Understanding the information allows the patient to take possession of meaning and, in a medico-legal framework, it allows him to deliberate on the different elements composing the information, and thus to make an “informed” decision, and then to consent. For there to be “true consent, there must be comprehension of what one is consenting to” [11]. The easy-to-use psychometric scale provides traceability, in the medical file, of the comprehension of the information declared by the patient immediately after the preoperative consultation and contributes written proof of what the patient says she has understood. The rater-administered questionnaire can determine the points that require new information. If need be, corrective actions can be implemented and be traced in the patient file, consistently seeking to improve the quality of care as well as to protect the surgeon from later lawsuits.

Disclosure of interest

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Appendix A. Supplementary data


References