



How do hospital providers perceive and experience the information-delivery process? A qualitative exploratory study[☆]

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ABSTRACT

Objective: To explore how professionals deal with informing their patients and how they experience the process per se, in order to deepen understanding of the issues involved and to identify areas of focus for improvement.

Methods: Semi-structured qualitative interviews were conducted with 13 hospital professionals at Lausanne University Hospital, Switzerland.

Results: Information includes feedback, practical information, patient condition, treatment/process of care, and educational material. Information-delivery is a process that involves informing the patient then checking patient reception of the information. The main expected outcome is patient action. Providers can feel trapped, guilty, inadequate, powerless, disenchanted when the process fails to achieve its expected purpose.

Conclusions: Informing and checking strategies are not implemented optimally, and providers could benefit from guidance in order to decrease discomfort and become more proficient at delivering information.

Innovation: Addressing the information-delivery process per se provides us with a novel insight into the complexity of the process and contributes to identifying essential ingredients of future innovative training programs for providers at large.

1. Introduction

Information is an integral part of patient-provider communication and a pre-requisite for patient-centered care [1-3]. Informing orally is a complex process that involves both the provider's skills in information-giving – choosing what information to deliver and how to deliver it [4] – and the patient's capacity to receive it, i.e. understand, recall, appraise, and apply it [5].

How information is delivered and received can have a considerable impact on treatment adherence and engagement in healthcare decisions [6,7], as well as on health and quality of life [8,9]. Yet the reality is that professionals tend to overestimate patients' capacity to understand and remember the information provided [10,11], and close to half of the information delivered orally to patients is lost or incorrectly understood [12-14]. This can lead to patient distress and resentment [15], contribute to patients' difficulty in asking questions and expressing feelings [16], and ultimately fuel patient dissatisfaction [17-19].

Over the years, various models and guidelines have been developed to improve information delivery and facilitate patient understanding.

They highlight the importance of creating a trusting relationship in a psychologically safe environment [20,21], tailoring the information to the patient's knowledge, needs, preferences and level of literacy [22-25], simplifying language, minimizing medical jargon [26], portioning the information, allowing the patient to react [11,27], checking patient understanding [26,28-31]. Providers are also encouraged to ensure patients are receptive before delivering information, invite patient reactions, and empathize with their emotions [24,32-34].

Such models and recommendations, however, have mostly been developed in fields such as oncology or emergency medicine, for settings in which either the content or context is particularly sensitive, such as breaking bad news [22] or when important health decisions with potential lasting implications must be made [25,35]. In a recent review that examined intervention studies where physicians gave oral medical information to patients, Menichetti et al. [4] identified categories of information-delivery strategies, yet also noted that the studies they reviewed often lacked theoretical framework and methodological rigor. They argue that information-giving strategies per se need to be further researched and taught.

[☆] I confirm all personal identifiers have been removed or disguised so the persons described are not identifiable and cannot be identified through the details of the story.

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Indeed, little research exists on what these strategies actually look like in practice and how providers adopt them [36]. A further lack in research concerns providers' actual perspectives and experiences in information-giving [37]. Again, an exception comes from fields such as oncology, where clinicians are faced with difficult and complex conversations, and where delivering sensitive information (e.g. a serious diagnosis) has been shown to be particularly distressing and emotionally charged for the provider [15,38-40]. In these specific fields, health care professionals can increasingly access specific training and support to improve skills and ease for information delivery [22,35,41].

This might suggest that information delivery per se does not warrant specific attention or training. This may not be the case. Looking at information-giving as a generic process, by asking providers across a variety of professional categories and contexts to reflect on how they orally inform their patients and how they experience the process, can deepen our understanding of the issues involved in information-delivery per se, and guide us in identifying areas of possible improvement.

We conducted a qualitative study among a group of hospital professionals to: 1) learn how they describe and experience the task of informing patients and 2) identify areas of focus to improve the process. This study is the exploratory part of a project intended to develop training material to support hospital staff in providing information to patients.

2. Methods

2.1. Study design and setting

We conducted individual, semi-structured interviews between May and June 2018 at Lausanne University Hospital, Lausanne, Switzerland, a 1'500-bed institution which serves as the primary care center for the city of Lausanne and surrounding districts, and as a tertiary care center for the region and neighboring states.

Participants provided oral consent for participation and for the use of audio-recording material. We removed all names and identifying information to guarantee confidentiality. The study is reported according to COREQ checklist standards [42].

2.2. Sample

We used purposive sampling to ensure diversity of professional categories (physicians, nurses/healthcare professionals, administrative staff) involved in patient information in out-patient and in-patient settings across different departments at Lausanne University Hospital. With support from hospital management, two departments (orthopedics, endocrinology) were contacted via their department heads; all expressed enthusiasm in the project and identified individuals from different professional categories for us to meet. In two additional departments (rheumatology, general practice), the authors invited professionals they had met professionally prior to the study and who had mentioned an interest in the topic. Snowball sampling opportunities allowed us to successively include additional participants. Potential participants were approached by email with a description of the project's purpose and the authors' intentions for the interview. Altogether, 14 participants were contacted to take part in the study; 13 responded positively, one did not respond. Since the last two interviews provided no new categories related to the research question, and data showed consistent trends despite the relatively small sample size, data saturation appeared to have been reached and sampling was terminated at that point. This is consistent with the view that in studies using purposive sampling, as in many qualitative studies in general, 12 interviews should be sufficient to achieve data saturation [43].

2.3. Data collection process

Thirteen individual semi-structured interviews were conducted by

the first author, a female psychologist (MSc, PhD candidate) with senior experience in communication skills training. The interviews took place in participants' respective workplaces, lasted between 1 and 1.5 h, and followed an interview guide created for this purpose (Appendix A). We addressed *what* information providers give patients, *why* they inform them and *how* they go about it, encouraging them to walk us through the process step by step with examples. Throughout the interviews, we elicited their reflections on the process. This allowed us to gain a full picture of providers' experience of giving information.

2.4. Data analysis

Interviews were analyzed using a general inductive data analysis [44]. All audio-recorded interviews were transcribed verbatim. We first carried out an open coding, consisting of labeling each idea put forward by the interviewees [45]. This process was conducted on two transcripts, independently and in parallel by the first author and a colleague, expert in qualitative methods, in order to check consistency [46].

The resulting two sets of labels were compared and combined, to create a preliminary coding manual, which was then tested on two transcripts by the two researchers. Results were compared and adapted based on consensus. The first author coded the material and analyzed the data, generating a set of main categories. These were reviewed and discussed with the second author and with another experienced researcher, providing triangulation in order to confront views and reinforce the first author's critical perspective and interpretations. Transcripts were analyzed in French. Quotes used as illustrations in the manuscript were translated into English.

3. Results

Thirteen providers participated in the study: 5 physicians, 3 nurses, 2 physiotherapists, 1 occupational therapist and 2 secretaries, working in 4 different departments (orthopedics, rheumatology, endocrinology, general practice). The majority were women (10 women, 3 men). All worked in out-patient settings, with 8 of them also involved in in-patient care, and most practiced in both chronic and acute areas. All had direct contact with patients and delivered information in their everyday practice. Sample characteristics are provided in Table 1.

Table 1
Sample characteristics ($n = 13$).

Characteristics	n
Gender	
Male	3
Female	10
Department	
General practice	3
Orthopedics	4
Rheumatology	3
Endocrinology	3
Professional category	
Physicians - General practitioners	2
Physicians - Specialists	3
Nurses	3
Physical therapists	2
Occupational therapist	1
Secretaries	2
Professional experience	
< 5 years	2
5–10 years	5
11–15 years	4
> 15 years	2
Setting	
Out-patient only	5
Out-patient and in-patient	8
Type of care	
Chronic and acute	9
Chronic and prevention	4

The analyses resulted in three main categories: informing the patient, checking how the patient received the information, and underlying provider feelings.

3.1. Informing the patient

3.1.1. Reasons and purpose

Participants were asked *why* they inform their patients. In French, the word “pourquoi” (“why” in English, i.e. for what reason) is pronounced the same as “pour quoi” (literally, “for what”, i.e. with what purpose). Answers reflected these two meanings.

On the subject of reasons, (Table 2.a) providers consider that informing is a professional obligation, as well as a patient right. Informing also reinforces the relationship between provider and patient: it maintains trust, signals respect, allows partnership. On a personal level, informing patients gives providers a sense of usefulness, satisfaction and integrity as individuals.

Regarding purpose (Table 2.b), although many participants state that one purpose of information is for the patient to gain understanding, all affirm that information serves to ensure patient adherence. Some explicitly define understanding as the prerequisite for action. A few report that informing patients empowers them for decision-making and self-management: “*more than knowing, it is being able to deal with it*”. In our sample, therefore, information is given with the intention that the patient act on it.

3.1.2. Content

Providers report five categories of information: feedback, logistics, patient condition, treatment/process of care, and educational information, detailed in Table 3. Feedback is mostly mentioned by physicians, and administrative staff only report providing logistical information. Apart from these two exceptions, all providers report delivering all types of information in their everyday practice.

3.1.3. Informing strategies

Providers report relying on a series of strategies to inform patients (Table 4). Engagement with the patient (e.g. securing care and trust, being prepared, showing respect and consideration) is the most frequently mentioned and is considered an essential component of the information delivery process. As if projecting themselves on their patient, sometimes providers inform as they would like to be informed themselves. As explained by this participant: “*I anticipate what I would worry about, tell myself that this will worry the patient too, so I will take the time to explain*”. Sometimes a facilitating strategy, this can also have its downfall: “*the things that seem more trivial to me, I’m going to skip over*”.

Providers say they often elicit patient knowledge and needs, as well as collect facts and perceptions, before informing. This involves asking patients what they know and want to know before providing the information, gathering factual information on their personal, social, professional situation, or asking them about their perceptions and beliefs.

Eliciting from the patient then allows the provider to tailor the content, language, amount, and complexity of the information they deliver. It also allows them to make sure the moment is appropriate, and, if necessary, to postpone or limit the amount of information given at a

Table 2.a

Types of provider reasons for informing, and examples of relevant participant statements.

Reasons	Examples of participant statements
Professional	“it is our duty, our mission” “the patient has the right to have this information; it must be given to him”
Relational	“reassures the patient and maintains trust” “be a partner with the patient”
Personal	“rewarding to have knowledge that you can share” “a sense of job satisfaction: being able to bring something to the patient who is able to receive and benefit from it”

Table 2.b

Types of provider purpose for informing, and examples of relevant participant statements.

Purpose	Examples of participant statements
Understanding	“to understand their illness” “for them to understand the information, so that they can integrate it and have an opinion about it”
Adherence	“it increases treatment adherence” “for the success of treatment”
Empowerment	“more than knowing, it is being able to deal with it” “to know what to do if it happens again”

Table 3

Types and examples of information content.

Content	Examples
Feedback	Test results Diagnosis Setting Logistics Role Requirements Scheduling Timetables Contacts Billing Administrative procedures
Practical information	Definition Origin Evolution Prognosis Scientific knowledge Anatomy Mechanisms
Patient condition	Objectives Expected effects Adverse effects Treatment alternatives Controversies Treatment plan Administration mode Program Progress Available support Recommendations Strategies Contraindications Instructions Signs to be aware of Implications Needed precautions Actions to take Explanations Safety Daily management Suggestions Prevention
Treatment / process of care	
Educational information	

time.

Although tailored to the patient, information is nonetheless loaded with obligation: “*we have to succeed in making the patient understand*”. Information is therefore often given with an instruction on what the patient is expected to do with it, adding a suggestive or persuasive quality to it. As an example, one participant states “*I’m going to say: so, to make it clear, we’ll do a blood test now, an X-ray, we start this treatment, you see the nurse in two weeks and we’ll see you in a month*”. Another one, in reference to an information regarding the importance of doing a blood glucose test after meals, says “*I’ve explained and discussed beforehand why they need to do it at that time*”.

Table 4
Types of informing strategies used by providers for informing and examples of relevant participant statements.

Strategies	Examples of participant statements
Engagement	<i>“Deliver an information, but also interest and attention”</i> <i>“You have to smile a lot because it helps. It helps me a lot if I talk to someone who smiles at me”</i>
Elicit patient knowledge and needs	<i>“I ask what they have understood about their condition, what information they have already had, what reactions they have had to this information. I have my framework for a given condition, but I will take what the patient gives me and add the information that seems relevant at that moment, either to complete or to correct what they said”</i>
Collect facts / perceptions	<i>“We collect information about their personal, social and professional situation”</i> <i>“I ask them what they think about medication”</i>
Tailor information	<i>“Who is this person, their age, their ability to understand, do I need to adapt my language, use more specific terms, more jargon, less formal, more imaged?”</i> <i>“If the patient is withdrawn or impatient, then this is not the best time to hear everything we have to say, it is better to postpone”</i>
Instruct	<i>“I tell the patient what to do (with the information)”</i> <i>“We have to convince them, we give them information, they have to adhere”</i> <i>“I’m going to say: so, to make it clear, we’ll do a blood test now, an X-ray, we start this treatment, you see the nurse in two weeks and we’ll see you in a month”</i> <i>“I give them the information, then I tell them to stick it on the fridge. And then from time to time look at it”</i> <i>“I say, we’ll do this and that as a treatment, and I’ll also explain any side effects, what’s expected, if there are any special checks to be made, and the schedule for the following months”</i> <i>“I like to set objectives for diabetic patients at the end of each consultation (for example, to do a blood glucose test after a meal). I’ve explained and discussed beforehand why they need to do it at that time”</i> <i>“There’s information that’s relevant at the time, either because it’s something that needs to be done quickly, or because it’s something quite fundamental to understand”</i>

3.2. Checking how the patient receives the information

3.2.1. Indicators: cues and observations

Once they have delivered the information, providers report relying on patient cues and observations to check, specifically, whether or not the patient has understood the information. Cues can be either verbal or non-verbal: verbal cues may involve the patient asking a question, or commenting on the information; non-verbal cues, whose interpretation is drawn from providers' intuition and experience, include expressions, body language, eye contact.

Providers also rely on follow-up objective observations. For most, a positive clinical outcome means that the patient understood the information that was provided; a negative outcome signals that they have not acted on the information, therefore have not understood it. **Table 5** provides examples of participant statements on indicators.

3.2.2. Verification strategies

In addition to indicators, providers indicate using verification strategies to check patient reception of the information (**Table 6**). Most often this involves checking patient understanding or intention, and is done with a closed-ended question (e.g. *“is it clear?”*, *“do you have any questions?”*, *“are you going to do it?”*).

Less frequently, providers encourage information recall. This involves asking the patient to repeat or to show back: *“what did you understand?”*

For some providers, verification can involve encouraging the patient to elaborate on how they make sense of the information (e.g. *“what does this mean to you?”*) or what they intend to do with it. An example of the latter involves projecting the patient into future scenarios: *“I say, if you*

Table 5
Types of indicators used by providers for checking reception of information and examples of relevant participant statements.

Indicators	Examples of participant statements
Patient cues	Verbal <i>“If they have questions or no questions”</i> <i>“They will maybe just tell you yes, or ah I understood or little words that will encourage you to continue”</i> Non-verbal <i>“Body language, arms crossed, are they looking over you and not looking you in the eye? Or is it rather someone with a body language that is much more open, more alert”</i> <i>“You can see in their eyes that they’re paying attention: their head is tilted forward a little more, that they’re really listening to what you’re saying”</i>
Observations	<i>“It is easy to objectify from one consultation to the next because we have data”</i> <i>“If the patient doesn’t do the exercise well, if he hasn’t gained in strength, perhaps he has even deteriorated. It’s very simple, because if they can do it, they can do it, and if they can’t, it’s because they haven’t understood”</i>

Table 6
Types of verification strategies used by providers for checking reception of information and examples of relevant participant statements.

Verification strategies	Examples of participant statements
Check understanding	<i>“Is it clear?”</i> <i>“Do you understand?”</i> <i>“Do you have any questions?”</i>
Check intention / action	<i>“Do you agree?”</i> <i>“Are you going to do it?”</i> <i>“Did you take your medication as prescribed?”</i>
Encourage recall	<i>“Could you tell me what you have understood: why do we do this examination, why do we prescribe this treatment?”</i> <i>“I give them the information, and then if I see that they reproduce my exercises, it means they have understood it”</i>
Elicit elaboration	<i>“What does this mean to you?”</i> <i>“I say, if you have a seizure what do you do?”</i> <i>“So now you do your test and you have 3.8. What does that mean? What do you do? So I try to put them in a situation to see how they understood the information that I gave them”</i>

have a seizure what do you do?”

3.2.3. Correction strategies

When providers sense that patients have not understood the

Table 7
Types of correction strategies used by providers for checking reception of information and examples of relevant participant statements.

Correction strategies	Examples of participant statements
Repeat/adjust	<i>“If I have the impression that they really haven’t understood at all, well I repeat things”</i> <i>“Realizing if the language I used was perhaps too complex, or perhaps the speed of speech was too fast. I may have been too quick to go over certain steps that seem simple to me but which are not necessarily obvious when you don’t know them”</i>
Provide support	<i>“I will call the rheumatologist and say, you really need to go over this again because the information has not gotten through at all”</i> <i>“We rely a lot on our nurse, to save us time that we do not have”</i>
Postpone	<i>“There is information that they are not able to hear or that they do not want to hear”</i>
Identify barriers	<i>“We notice that the information that was given is not applied, are they also aware of it? and if they are, why is that?”</i>
Suggest alternatives	<i>“If he has to take his treatment on an empty stomach every morning, and doesn’t, is there another time that is more appropriate?”</i> <i>“The patient will say what the barriers are and then we see how he can get over or around them: can we find other strategies? Can you do something during the day? maybe at the break? Or is it possible if you work at the office, to maybe do some stretching? or think about working standing up?”</i>

information, or realize they have not acted on it, they apply correction strategies (Table 7). The strategy that providers use the most is repeating the information. Sometimes repeating comes with adjusting language or content. Providers also report providing additional support, such as reinforcing the information with brochures, flyers, suggested websites, video demonstrations, or a written summary at the end of the encounter. Or they might refer the patient back to a colleague or on to another specialized colleague, for them to take over the informing task. They might also postpone the information delivery if they feel that the patient is not receptive, or invite the patient to come back or call back with questions.

Providers also report identifying the barriers to the lack of action as another correction strategy. Generally, this is followed by a search for alternatives or suggestions. This illustrates how providers tend to focus more on finding a solution to the lack of adherence than on helping the patient make sense of the information itself.

3.3. Summary

Fig. 1 presents a conceptual framework of the information-delivery process that summarizes how providers deal with informing their patients. Guided by reasons and purpose, they use various strategies to inform. Indicators and verification strategies then help them check if information-delivery was successful. If not, they apply correction strategies.

3.4. Underlying provider feelings

The information-delivery process, as presented above, generates a number of feelings in the providers. Most of these have negative connotations. These point us to areas in the process that might need improving. Examples of corresponding participant statements are reported in Table 8.

3.4.1. Trapped

Providers often feel trapped, firstly by their obligation to inform. This obligation, which defines what information to give, how and when, can at times conflict with the reality of the patient. An example is when patients are not emotionally available to receive information. Another example is when providers confront their obligation to inform – the patient needs to know – with the reality that it's too much for them. Here, providers' obligation collides with their empathy towards the patient.

They are also trapped by the obligation of result (“they have to adhere”) and by the amount of information that needs to be given, i.e. finding the right balance between not enough and too much. Furthermore, providers can feel trapped by the context in which they deliver information: they deplore lack of time and question implemented procedures, both of which make it hard for them to be patient-centered and to inform adequately.

3.4.2. Guilty

Providers struggle with a sense of guilt, when they self-consciously state, for instance: “if they didn't understand, it's because I didn't do the job well”, or when their own emotional state (e.g. if they are tired, overwhelmed, upset), limits their presence by the patient.

Guilt is also apparent through providers' ambivalence, when they know they should do differently but don't: “asking, what do you understand? I should but I don't do it much”.

3.4.3. Inadequate

Providers' sense of low self-efficacy can make them feel inadequate. They are not comfortable giving complex or impactful information. This can hide their insecurity: “I try to convey what I think as best I can, but am I ready to accept the fact that perhaps my interventions are not very effective, or that they are not very understandable? Evaluating also confronts me with that”.

They can also feel inadequate when faced with patients who experience cognitive, linguistic, cultural, intellectual challenges, as this participant explains: “I might give them things in writing, and then I say to myself that maybe they speak French but they can't read it. I can't ask them the question. I'm embarrassed to say, do you read French?”

Inadequacy is also linked to the limit of their professional role. As if lacking legitimacy, they feel unqualified to deliver the information or to take on the patient's reaction: “I'm just a nurse”.

3.4.4. Powerless

Providers feel powerless when despite efforts to inform, patients are unreceptive, defensive or resistant: “you feel diminished, you don't know where to start.”

Powerlessness also appears when they realize they have no control over what the patient will do with the information. One participant states: “we have proceeded with our duty of information, but what he will do with it in the end, we don't really know. It's really something you have no control over.” In the light of this, a few participants express a need for resilience: “sometimes there's nothing you can do. Sometimes you have to

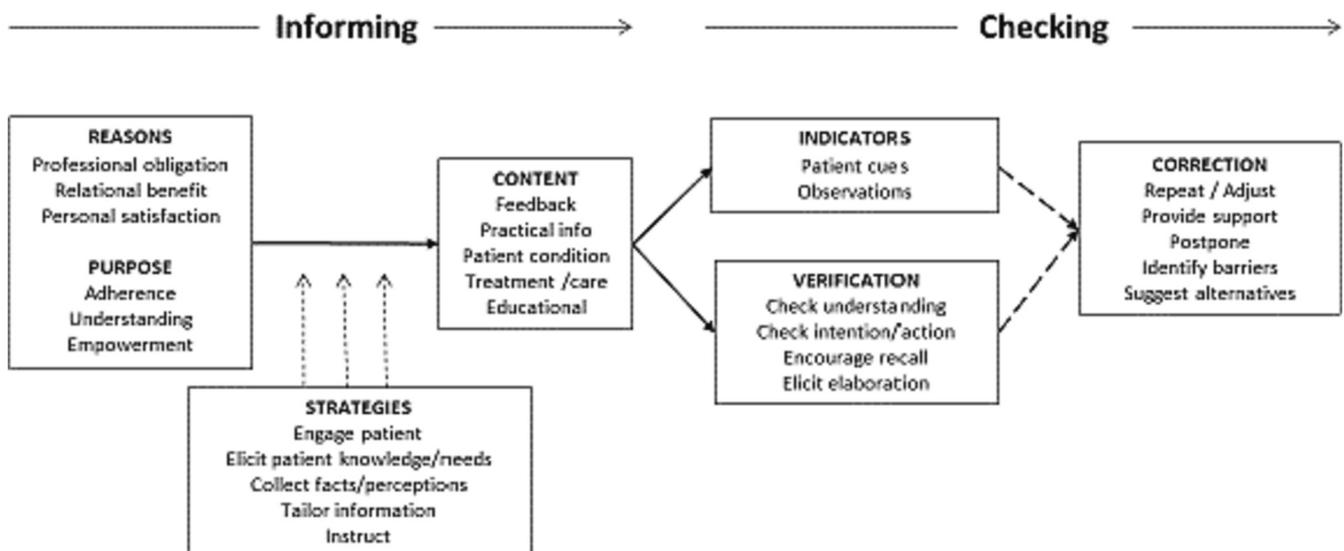


Fig. 1. Conceptual framework of the information-delivery process.

Table 8
Types of providers' underlying feelings and examples of relevant participant statements.

Underlying feelings	Examples of participant statements
Trapped	<p>Obligation to inform “There is so much information in an initial consultation that it is complicated for patients to grasp everything.” “Stress to inform well without raising concerns but without minimizing things” “There is information that we absolutely have to give” “A patient can be in such a state of shock that I have to take this into account even though I know that I have to inform them”</p> <p>Obligation of result “We have to convince them, we teach the patients concepts, they have to adhere” “We have to succeed in making the patient understand”</p> <p>Amount “We talk about the disease, its evolution, treatment, side effects, alternative therapies, we talk about the social network, the professional rehabilitation, all that in one hour, it's a phenomenal quantity of information”</p> <p>Context “What is complicated is that we don't have the time” “Too much importance is given to the written, signed, legal information” “It may be a mistake that we made at the beginning here, but (...) this is how we usually do it”</p>
Guilty	<p>Self-consciousness “If they didn't understand, it's because I didn't do the job well”</p> <p>Ambivalence “Asking, what do you understand? I think I should but I don't do it much” “We take the time for the big news but we should also do it for things that seem fairly trivial to me but that can actually have an impact” “Something we don't do enough, probably, is to have the patient repeat the information” “We slip them the answer: I think you've got it right, it's fine, we can move on. So we don't even give them time to express themselves” “I think we can be in a bit of a one-sided thing where we also protect ourselves by asking rhetorical questions, but in fact if we don't listen, then we'll always be off target”</p>
Inadequate	<p>Self-efficacy “Asking a patient, what do you think? it's difficult. I don't find it easy to do” “Asking for their perception, I think I don't do it well and I don't do it very much” “I try to convey what I think as best I can, but am I ready to accept the fact that perhaps my interventions are not very effective, or that they are not very understandable? Evaluating also confronts me with that”</p> <p>Patient challenges “All these cultural problems, a kind of magical thinking, sometimes it's a bit mysterious” “I might give them things in writing, and then I say to myself that maybe they speak French but they can't read it. I can't ask them the question. I can't see myself asking them, I'm embarrassed to say, do you read French?”</p> <p>Limit of professional role “I have a fear of opening things that I won't be capable to deal with... I'm just a nurse” “We have no power, that is very frustrating” “The secretary is not there to decide” “Sometimes we are faced with illnesses that we do not know” “Whose role is it to deliver the information” “And then there is a moment when I start to feel powerless, when it is beyond my competence”</p>
Powerless	<p>Unreceptive patient “It is difficult to leave the patient in their beliefs; I try to argue to persuade them that it is better to follow the instructions. (But) to counter-argument can actually create an escalation that is completely counter-productive; it doesn't work” “You feel diminished, you don't know where to start.”</p> <p>Lack of control “The patient physically hears it, but what they take, what they remember, how it resonates in them, what it evokes... we don't necessarily know, so we have made our list, that's fine, we have</p>

Table 8 (continued)

Underlying feelings	Examples of participant statements
	<p>proceeded with our duty of information, but what he will do with it in the end, we don't really know. It's really something you have no control over. I get a little frustrated.”</p> <p>Why bother? “They can't say I didn't understand” “The patient thinks, if I have questions, it means that you didn't explain it properly” “It's very difficult to say, I don't agree with what you're telling me, It's very, very difficult. So they don't do it” “(There are) patients who tell us yes, yes, I understand. And in fact it's to please us”</p>
Disenchanted	<p>“I am always surprised because sometimes we are very focused on the information, on giving information, a lot of information, we try to be very precise, so that the patient is informed as much as possible, so that he can understand things well. And then sometimes, when we hear their comments, their questions, we suddenly feel humbled and then we say to ourselves, okay, I went over this three times, I gave extensive information on all that and then in the end we find ourselves with a question that shows us that all the information we provided could not be received, at least not as we imagined that it would be. When we are faced with this, we despair” “Sometimes they call me back to ask me for something, even though I have a very clear memory that we have talked about it at length”</p>
Fulfilled	<p>“It is gratifying to see a person who is satisfied. So yes, there is responsibility, and there is also gratification, and I think that the gratification comes from feeling useful, from feeling competent, from feeling like a therapist, a professional, and from feeling legitimate in what we do”</p>

accept the situation as it is.”

Providers also feel powerless, with a sense of “why bother?” when they state that even if asked, patients do not say they haven't understood the information, generally out of embarrassment or politeness.

3.4.5. Disenchanted

Most providers experience disenchantment when they think they are efficient and realize they are not. Words such as despairing, frustrating, painful, indicate the strong, negative emotional impact that disenchantment has on providers. In the words of one participant: “(...) we try to be very precise, so that the patient is informed as much as possible, so that he can understand things well (...) and then in the end we find ourselves with a question that shows us that all the information we provided was not received, at least not as we imagined that it would be. When faced with this, we despair.”

3.4.6. Fulfilled

On a more positive note, when the information delivery is successful, providers feel fulfilled. As one participant explains, “it is gratifying to see a person who is satisfied. So yes, there is responsibility, and there is also gratification, and I think that the gratification comes from feeling useful, from feeling competent, from feeling like a therapist, a professional, and from feeling legitimate in what we do”.

4. Discussion and conclusion

4.1. Discussion

In this exploratory study, we conducted qualitative interviews with a diverse sample of hospital providers. For them, delivering information covers elements such as feedback, practical information, patient condition, treatment/process of care, and educational material. By allowing participants to express and reflect on how they deal with this task, we were able to suggest a general framework that provides some insight into professionals' reasoning behind the act of informing.

Providers raise the importance of engaging the patient in a trusting relationship, tailoring information content and timing to patient knowledge and needs, and checking patient reception of the

information. This is consistent with existing recommended practices, such as outlined in the introduction of this paper. However, across providers' reasoning there lies a general feeling of discomfort, a frustration that delivering information doesn't quite work as it should. These feelings point to areas that warrant attention and could be improved.

The first area concerns the expected outcome of the information-delivery process. Participants often mention patient understanding, and sometimes patient empowerment, as the purpose of the process. This is consistent with patient-centered approaches, which give increasing acceptance to the patient's voice and autonomy [1]. However, for all our participants, the most salient expected outcome of the process lies in the patient acting on the information. As such, providers tend to include, with the information, elements of instruction on what the patient is expected to do with it, as if to stress the importance of the message. If a patient is not ready to listen and follow the instruction included in the information, it can threaten their feeling of competence and autonomy [47-49], making it difficult for them to explore how they make sense of the information and to decide in full autonomy what they intend to do with it. This can lower motivation and intention to follow the aim of the message, leaving the provider feeling guilty of inefficacy or powerless in front of a seemingly unreceptive patient, as indicated in our sample. Approaches such as motivational interviewing [50-53] have proposed skills that can be useful to deliver information without instruction, and to address patient motivation to act on it.

Providers aim at patient *action*, yet their initial strategies after having delivered the information (as summarized in Fig. 1) involve checking if the patient has *understood* the information, implying that understanding will ensure action. However, it is well recognized that understanding, while it improves knowledge and is essential, does not guarantee action [54-56]. As a consequence, providers mostly interpret lack of action as a lack of understanding. Perceived lack of understanding and ulterior lack of action can result in time-consuming repetitions and adjustments – the main correction strategies reported in our sample – as well as in provider frustration.

Furthermore, checking that the patient has received the information most often involves yes/no checks of understanding or intention, although there is empirical evidence that the use of open-ended invitations should be favoured over closed-ended ones [57,58]. Less often, in our sample, providers check understanding by encouraging recall. Even though recall, or teach-back, has been shown to be effective in improving retention and understanding of information [59,60] and its use has been widely recommended [5,61], health care professionals do not systematically use it [62,63], often because of a lack of training [64]. In our sample, providers express feelings of guilt and inadequacy when faced with their difficulty to check patient understanding more effectively.

Overall, our findings suggest that providers, when they inform patients, carry the pressure of patient action. Carrying the weight of this responsibility can make it difficult for providers to fully accept patient autonomy when delivering information. This shows a potential confusion between the obligation to inform [65] that falls on providers, and the responsibility of the outcome, which inevitably lies in the patients' hands [54,66].

This study has several limitations. Firstly, it was performed in a single hospital, and thus might not be generalizable to other settings. Second, in order to identify potential participants, we needed the support and approval of their hierarchy. Our sample was therefore probably mostly comprised of reputed professionals. Consequently, the data may not be representative of a wider population, and generalizability is therefore limited. Furthermore, results might be limited to some extent since the same interviewer conducted all semi-structured interviews and analyses. Nevertheless, double coding of part the data was achieved, consensus on the coding manual was reached, and analyses were reviewed and discussed with an experienced colleague and with the second author, thus providing in-depth triangulation of data and findings. Unfortunately, time constraints did not allow the researcher to run

member checks in order to collect participants' comments on the results, interpretations and conclusions of the analysis. Doing so would have reinforced its validity. Finally, the collected data consists of participants' reports of how they inform patients, which might not be consistent with how they actually do it. Our intention was to specifically explore providers' perspectives, thus our choice in methodology. Additional research could include methods that allow for the analysis of actual clinical practice (such as direct observation or analysis of filmed consultations).

4.2. Innovation

Previous research on information-delivery has focused on either specific types of information (e.g. bad news), specific professional categories of providers (e.g. medical residents, physicians, nurses) or specific recipient populations (e.g. cancer patients, elderly patients, low-literacy patients). Addressing the information-delivery process per se, and through the eyes of the providers, is in itself innovative.

As are its implications. Results of this study suggest that informing patients is often tainted with pressure, uncertainty and discomfort. These findings firstly point to the complexity of a seemingly simple process, highlighting the importance of better equipping providers in how to take on this task, regardless of content or context. Secondly, they add essential ingredients to future development of training programs aimed at improving provider skills and competence. Based on this study's findings, we are currently developing an innovative e-learning module aimed at illustrating how information-delivery can go wrong or, on the contrary, be improved, through video demonstrations, learner involvement and consistent feedback. Existing digital training tools tend to focus more on general communication skills [67] or, if they address information-giving, they aim specific skills such as breaking bad news [68] or oncology treatment information [69]. We aim to target hospital professionals more globally and information more at large. To our knowledge, no such material has yet been developed.

4.3. Conclusion

Our suggested model of usual practice describes the steps that providers report following when they inform patients: they are guided by reasons and purpose, use a variety of strategies to deliver content, rely on indicators, use verification and correction strategies. Each step is a potential ground for confusion that can place the provider under pressure, including the pressure of failure when the patient does not react as expected to the information. Each step also offers an opportunity for improvement.

Our findings suggest that informing and checking strategies are not implemented optimally, and that providers could benefit from clear guidance in order to decrease discomfort and become more proficient at delivering information.

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CRediT authorship contribution statement

Cristiana Fortini: Conceptualization, Methodology, Investigation, Formal analysis, Writing – original draft. **Jean-Bernard Daeppen:** Conceptualization, Validation, Supervision, Writing – review & editing.

Declaration of Competing Interest

None.

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Appendix A. Interview guide (translated from French)

Interview structure	Main questions	Additional questions / details
Introduction and context		Specify interview context Present the interview structure Ensure confidentiality Ask permission to record
Provider Information: content Information: aim Information: delivery	Tell me about your work and the context you work in What type of information do you provide patients? Why do you inform patients? How do you know what information to deliver? What do you pay attention to? What precautions do you take? How do you deliver the information? What helps you? What do you do once you have delivered the information? How do you think the patient receives the information? What tells you if the patient has heard/understood/integrated the information? How do you ensure that the information is relevant/understood?	Can you give me some examples? How do you prepare yourself to deliver information? Can you give me some examples? Do you have examples of situations where patients appeared to (not) understand/ (not) integrate the information? How does the patient react? What do you make of that? What do you think then? What is the patient thinking? What do you do next?
Process: provider experience	How effective do you think the information-providing process is? How do you feel in the role of the « informer »? What skills do you think professionals should acquire to inform patients? If you had one key message to convey around information delivery, what would it be?	Can you give me examples of positive / negative situations that you experienced?

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