Proposing surgery at the prosthetic clinic: managing patient resistance

Patient Education and Counseling
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Abstract
Objective: Investigating doctors' communicative practices for recommending surgery to amputees when the proposal counters patients' expectation.
Method: Conversation Analysis of 77 videorecorded medical consultations at an Italian prosthesis clinic.
Results: **C**ompared to the **direct** format **doctors** used to prescribe prosthesis, when suggesting surgery doctors adopt**ed** a more **circuitous, indirect** approach. **They** us**ed** a range of communication strategies, orientati**ng** to patients' likely resistance – **indeed, patients were frequently observed to reject surgical options**.
Conclusions: **Considering patients' expectations is part of a patient centred approach, hence the cautious ways in which doctors introduce the option of surgery. Moreover, doctors do not pursue recommending surgery when patients display their reluctance or resistance.**
Practice implications: Doctors **in prosthetics clinics might adopt** a more balanced communicative strategy that takes into account patients' **perspectives**, concerns and expectations**, whilst** but also provid**ing** patients with the necessary information to **collaborate** meaningfully **to decision** making.

Keywords:
Amputees, prosthetics, surgery, treatment recommendation, patient resistance, **patient centred care**

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1 Introduction

Amputees are routinely prescribed the application of an artificial limb and a rehabilitation process [1-2]. However, surgery may also be recommended as an elective treatment in addition or as alternative to prosthesis. Therefore, a decision-making process may be in play. This study draws on a corpus of 'first visits' at a clinic linked to a public social insurance institution that provides prosthesis and rehabilitation for patients who suffered amputations, mostly as a consequence of work-related accidents. These patients are referred to the clinic to be evaluated by a multidisciplinary panel of specialists regarding the application of a prosthesis. In our corpus, a prosthesis is prescribed in most of the cases, while surgery is in only 14 cases. This article investigates this latter group, excluding those cases (3) in which the surgical alternative is raised by patients.

According to the principles of patient-centred communication, patients' involvement in decision-making is vital for providing solutions tailored to the patients' psychosocial and physical needs [3-5]. Nevertheless, little is known about how treatment decisions are actually made in prosthetics clinics, and about how doctors introduce and explore post-amputation solutions in order to foster shared decision-making [6]. Few studies have investigated prosthesis users' perspectives, values and preferences, or their satisfaction with their communication with their prosthetists [1, 7 and 8]. Results show that the quality of communication, including patients' understanding of the key factors influencing the decision-making process, stand out as fundamental. Prior studies reporting patients' perceptions of their communication with prosthetists and other physicians are mainly based on post hoc accounts and reports. Therefore, there is a gap in knowledge of how decision-making is accomplished in prosthetic clinical practice. The present study uses conversation analysis to investigate this process. Previous literature adopting a conversation-analytic perspective on decision-making in healthcare [9-12] highlights the importance of doctors' communication practices in enhancing shared decision-making with patients [4, 13].

This article focuses on the way in which surgical options are presented to patients, and on their reception. Results show that, in this setting, doctors use direct, straightforward practices to prescribe prosthesis. By contrast, they use circuitous and less direct communicative strategies when they are introducing possible surgery, thereby displaying their orientation to the patients' likely resistance. These strategies include enquiring whether patients have experienced discomfort in the amputated limb, sometimes avoiding explicit reference to surgery, and enquiring whether patients 'have heard about surgery' in order to explore their stance towards it. Doctors' cautiousness displays their anticipation that patients may be unwilling to undertake surgery. Indeed, in most cases, patients

display resistance to the proposal and reject it. The delicacy involved in presenting the proposal is also evidenced by the doctors' orientation to promptly aligning with any early signs of patients' resistance and by their deferral of or withdrawal from the decision about surgery.

2 Methods

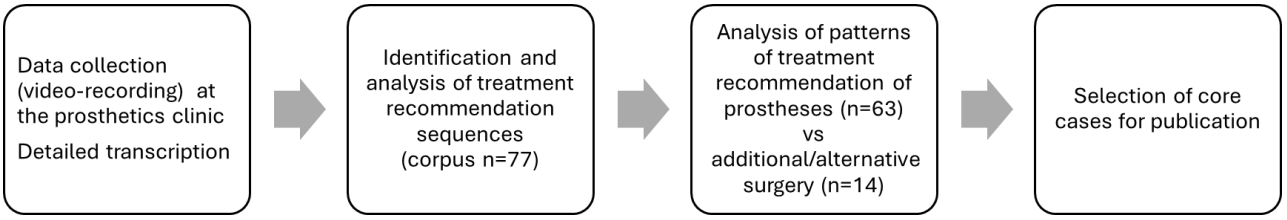
Data:

This study draws on a corpus of video recorded medical visits by 77 patients (38 with upper limb amputation; 39 with lower limb amputation) and 24 healthcare professionals, including surgeons, physiatrists[i], prosthesis engineers and technicians, and nurses. The recordings using multiple cameras were collected between 2010-2012 at a prosthetics clinic in northern Italy; they totalled approximately 24 hours. Ethical approval was obtained by the Ethics Committee of the University of (omitted) (approval n. 135371). All participants provided written informed consent. The visits were scheduled 'first visits' as part of the post-amputation rehabilitation pathway normally leading to the application of a prosthesis. During these visits, physicians assess the status of the patients' residual limb(s) through physical examination, in order to determine whether patients can receive a prosthesis, if so of what type (e.g., functional or aesthetic), or whether instead surgery was advisable.

Analytic procedure:

Conversation analysis (CA) provides the framework for data transcription and analysis [14, 15] which developed as depicted in Table 1 (see Appendix 1 for transcript conventions). Due to its detailed and strictly empirical approach to explaining social actions, CA is recognized to be a suitable tool to identify the communication practices used by professionals and patients [4]. The analysis focuses on details of the design and sequential positioning of participants' (doctors and patients) talk and visible conduct that are observably consequential for producing, delivering, and responding to treatment recommendation.

Table 1. Diagram of the data collection and analytical flow



Treatment recommendation sequences were distinguished according to the type of treatment (prosthesis vs surgery). According to CA's inductive, data-driven approach [16], such distinction

reflects the way the participants themselves ostensibly treated recommending either of the two treatments as configuring a distinct interactional business with specific practical implications. The validity of the proposed analysis thus lies primarily in the adherence to the participants' emic perspective as manifested in their sequential actions.

Patterns underlying each type of treatment recommendation were identified particularly with regard to the sequential unfolding and design (syntactic formatting, lexical choices) of doctors' actions, and to the positioning and type of patient's responses (acceptance/rejection and forms of resistance). Relevant details pertaining to the participants' embodied conduct were also considered. To enhance the validity of the analysis, instances of the identified patterns were compared to check their association with observable interactional goals [17].

The transcripts accompanying the analysis in the following section enable the reader to independently check the validity and transparency of the claims being advanced.

3. Results

In our corpus, prosthesis prescription was adopted in 84% of all visits, while surgery was offered in the remaining 16%. As shown in the following analysis, the interactions developed in different ways, depending on the type of treatment that was prescribed. In what follows we illustrate one case of prosthesis prescription and then the less direct practices employed to suggest surgery.

Before that, a note about our use of 'prescription' is in order. 'Prescription' may be commonly understood to be a written instruction by the doctor about medication the patient should take. It might therefore be supposed therefore that 'treatment recommendation' [18] would be more appropriate. However, two factors inform our use here of 'prescription. First, there is nothing equivalent in Italian to 'treatment recommendation'; there is a single word (*prescrivere*) covering instructing patients about treatment, including medication, and patients' records in the prosthetics clinic specifies 'prescription'. Second, when surgery might be an option, doctors do not straightforwardly 'recommend' that treatment.

The prosthesis prescription - a direct format:

In Extract 1 the clinician (technician) prescribed prosthesis in a direct, straightforward format. The extract exemplifies common aspects of all the occurrences of this prescription type.

Ex.1 [Prost:300708/P1] [T: Technician; P: Patient] (P lost part of her second finger during a work accident. This follows the physical examination)

01 T: adesso va in reparto, dove facciamo
now you'll go to the ward where we make

02 le pro:tesi? <le ve::de così capisce
prostheses you'll see them so you understand

03 bene di cosa si tratta, poi partiamo con questo
well what this is about then we'll start with this

04 coprimonco:ne, [e dopo un po' di tempo
stump cover, and after a little while

05 P: [sì.
yes

06 T: si passa alla protesi.
we'll move on to the prosthesis

07 P: va bene.
alright.

While the doctor who performed the examination is filling in the medical record, the technician (T) gave the patient (P) instructions and information concerning a visit to the lab where prostheses are produced. First, T instructs P on what to do next (ll.1-2: ***"now you'll go to the ward", "you'll see them"***); then he announces what they (the doctors) will do (ll:3-4: ***"then we'll start with this stump cover", "we'll move on to the prosthesis"***).

By moving straight to the illustration of the next steps leading to the prosthesis application, clinicians did not thematise the prescription phase but actually skipped it. In this way, the decision was presented as the doctor's unilateral decision [19, 20], taken for granted and independent from any negotiation with the patient. Furthermore, with this concise, straightforward practice, doctors displayed their orientation to the prosthesis prescription as the default solution from both their own and the patient's perspectives.

The option of surgery:

In contrast to the direct and unilateral ways in which surgeons directly prescribed prosthesis, as illustrated in Ex.1 (***"now you'll go to the ward where we make prostheses",*** lines 1-2), they were less direct, more cautious and gradual in suggesting surgery. When surgeons were inclined to suggest surgery, either as a preliminary to or instead of prosthesis, they prepared the ground, leading up to the possibility of surgery by asking patients about their experience of the relevant, compromised limb. For instance, in this next example, the surgeon did not immediately refer to 'surgery' upfront but rather led indirectly into the possibility of surgery.

Ex.2 [Sur:120912/P22] [S: Surgeon; P: Patient] (P had a work accident three months earlier in which the third and fourth fingers of his left hand were damaged)

01 S: faccia il pugno? ((*makes a fist himself*))

make a fist

02 P: ((*makes a fist*))

03 S: il fatto che non si piega completamente, le dà un po'
the fact that it doesn't bend completely does that
((*S manipulates and examines P's hand*))

04 ^fastidio sì?
bother you yes?
^((*S raises his gaze to P, who is standing in front of the doctors*))

05 (2.0)/((*P shakes head slowly side by side, smiles with protruded lips, and opens right arm*))/((*S keeps gaze on P*))

06 P: sì. però:::,
yes but

07 S: [però riesce? eh.
but you manage eh

08 P: [(va bene così) no va bene così ((*smiling*))
it's ok this way no it's ok this way

09 S: non vorrebbe fare un intervento per migliorare la tensione?
wouldn't you like a surgery to improve the tension
((*gazing at P*))

10 (0.6)/((*S maintains his gaze on P*))

11 P: ^ma s:::ì, se si può fare sì.
well yes if it is possible yes
((*S lowers gaze on P's hand*))

Before asking the patient about surgery (in line 9), the surgeon first asked the patient to move the limb (*"**make a fist**"*, line 1). In response to the patient's attempt to follow that instruction (line 2), the surgeon formulated a trouble the patient encountered (*"**it doesn't bend completely**"*, line 3), then asked the patient whether the stump of the limb bothered him, i.e., troubled him. The preference associated with the surgeon's enquiry is highlighted by his having added the tag *yes* to the enquiry (*"**does that bother you, yes?**"*, lines 3-4). Sure enough, the patient answered according to that preference, although seeming about to add a possible caveat or qualification (*"**yes but**"*, line 6). The surgeon intercepted whatever had been going to be that caveat, offering on the patient's behalf something like a stoical response to adversity, i.e. he still *manage(d)* (the problem, by bending his hand) (line 7), thereby leaving intact the likelihood that the limb was 'bothering' the patient; in this way the surgeon aligned with the patient's anticipated resistance to admit fully that there was a problem.

This sequential approach to suggesting surgery is akin to 'stepwise entry in advice giving' observed in encounters between health visitors and first-time mothers in the UK [21], in which a problem is established through a sequence in which the health visitor enquires after the mother's/baby's condition, in preparation for and to set up delivering advice about what might remedy that problem – here, that surgery might relieve the discomfort (*"**surgery to improve the***

tension", line 9). Moreover, the patient-oriented negatively constructed enquiry about his preference (*"**wouldn't you like"***, line 9) adds force or pressure to the enquiry [22]. This negatively framed enquiry bordered on offering surgery to the patient - an 'offer' which the patient accepts (*"**well yes if it is possible yes"***, line 11) - which contrasts further with the surgeon's unilateral, declarative prescription in Ex.1.

The indirectness with which the surgeon approached *asking the patient about* rather than outrightly *prescribing* surgery is evident also in this next example, in which the surgeon likewise does not initially refer to surgery but leads into what might be 'necessary' by similarly asking the patient whether the limb *bothers* him (line 4). For convenience, this example is shown in two parts: in the first, Ex.3a, as he held and examined the patient's hand, the surgeon remarked on 'noticing' ***some nail residue"*** (line 2); this is confirmed by the patient (line 3), in response to which the surgeon asked *"**does that bother you a little**"* (line 4).

Ex.3a [Sur:120912/P25] [S: Surgeon; P: Patient] (P had a work accident four months earlier in which he lost part of his right little finger)

01 S: ((*drops the pen he was using to fill in the form,*
reaches for P's hand and grasps it))

02 S: okei vediamo un po', qua è rimasto un residuo ungueale
okay let's have a look, here there is some nail residue

03 P: sì. qualcosa è rimasto.
yes. there is still something

04 S: *mhm. le dà fastidio un pochi:no*
mhm. does that bother you a little

05 P: ((*facial expressions that minimize*))

06 P: relativamente.
moderately

07 (0.6)

08 P: poco direi.
a little I would say

09 S: əh perché qua:,=mhm::: deve::: #uhu:.hh (0.2) se vogliamo (0.2)
eh because here mhm you should uhu:.hh if we want

10 rimuovere tutto >biso' far un interventino.<
remove everything it is necessary to do a little surgery

11 togliere::, (.) tutta sta parte qua. ((*smiles, gazing at P*))
to remove all this part here

12 (1.2)

((*a few lines are omitted*))

20 S: se le dà fastidio 'sta cosa qua biso'a
if this bothers you this thing here it is necessary

21 far un tagliettino rimuovere tutto,
to make a little cut remove everything

Here also, as in the previous case (Ex. 2), during the physical examination the surgeon observed something about the patient's limb (*"**some nail residue"***, line 2). The practice of describing what a

doctor is seeing during a physical examination (online commentary) has been shown to be associated with building alignment between doctor and patient [23]. Whilst the surgeon did not formulate the observed condition as an issue to be addressed, as a potential problem (cf. ***"it doesn't bend completely"***, Ex. 2 line 3), nonetheless, he asked the patient whether what was observed (the nail residue) bothered him (line 4), to which the patient answered here as the patient did in Ex.2, with a downgraded confirmation that it bothered him (***"moderately"***, line 6), which he further downgraded in ***"a little I would say"*** (line 8). That was, however, sufficient confirmation of 'bother' for the surgeon to raise the possibility of surgery. He did so in a turn (lines 9-11) the complexity of which resulted from several self-corrections implementing changes in direction. But the most salient ways in which the surgeon was circumspect in introducing the suggestion of surgery was that i) the suggestion was made in a conditional form (***"if we want to remove everything",*** lines 9-10), ii) suggesting (***"a little surgery"***, line 10), and iii) repeating the 'necessity' not of surgery but of making ***"a little cut"*** (lines 20-21). Each of these features of the turn design suggesting surgery contributed to this being less direct than the formats used to prescribe prosthesis. The interaction continues:

Ex.3b [Sur:120912/P25] (Some lines omitted in which P told about the nail having grown after the amputation)

33 S: niente per far una cosa omogenea biso'a fare
anyway to get a homogeneous result it is necessary to do a

34 (1.0)((S *clicks on the pen to make it write*))

35 S: un interventino, si fa un taglietto, (0.4) a bocca di pesce, si rimodella
little surgery, one makes a little cut a fish-mouth cut one reshapes
((*while writing on P's finger*))

36 S: un po' l'osso si toglie la matrice, e questa parte un po'
the bone a little removes the matrix and this part to some extent

37 in modo tale che diventi (.) tutto omogeneo.
so as to make it all homogeneous

38 (0.2)

39 S: solo che bisogna fare un intervento.
it's just that it is necessary to do a surgery

40 P: e quindi? sì bisognerà fare l'intervento.
and so yes it will be necessary to do the surgery

41 S: s::ì, no, nel senso se::: le dà fastidio
yes no I mean if this bothers you

42 P: no non mi dà fastidio però-
no this doesn't bother me but

43 (2.0)

44 S: >perché< dal punto di vista diciamo, (1.0) e::: per rendere
because from the point of view let's say e::: to make

45 una cosa più completa::: si potrebbe fare quest'intervento qua.
one thing more complete one could make this surgery here.

46 S: [.hhh

47 P: [fastidio non me ne dà. (.) >però< [°eheh°
discomfort I don't feel it but eheh

48 S: [vuole vedere
do you want to evaluate

49 eventualmente magari mettiamo una- una protezione da lavoro
perhaps maybe we can put a a protection for working

50 vedere come va:,se dà fastidio poi dopo facciamo 'sto ritocchino.
see how it goes if it bothers you then we make this little touch up

51 P: sì.
yes

In Ex.3b the surgeon continued to be circumspect in pursuing the suggestion that surgery might 'be necessary' to alleviate the problem by employing the same practices of representing surgery as conditional (***"if this bothers you"***, line 41) even following the patient's apparent acceptance or resignation (***"and so? yes it will be necessary to do a surgery"***, line 40). The surgeon referred to ***"a little surgery"*** (lines 33-35), describing the surgery as ***"a little cut, a fish-mouth cut"*** (line 35), and explaining that surgery would 'homogenise' or complete the healing process (lines 33, 37, 44-45). At no point did the patient respond encouragingly to these pursuits by the surgeon, although he was equivocal in not ruling out having discomfort (lines 42 and 47). The surgeon finally deferred the possibility of surgery (at line 50, redefined in terms of ***"a little touch up"***) until they ***"see how it goes"*** (line 50).

In these cases (Exs. 2 and 3) the surgeons prepared the ground for possible surgery by enquiring about problems that the patient might be experiencing, so that surgery could be introduced as a solution to those problems (e.g. ***"to improve the tension"*** in Ex. 2 line 9). Moreover, surgery was introduced as a possibility (conditional forms); it was described in 'reduced' or mitigated forms (e.g. 'a little') and was treated as variously accountable (e.g. ***"because ... to make one thing more complete"*** in Ex.3b line 44-45). In Ex 3b the surgeon's increased tentativeness in advancing the proposal of surgery (as compared to Ex. 2) oriented to the persistent resistance displayed by the patient to recognize the need for surgery (i.e., to recognize having discomfort), which is also a similarity with the following example. Some of the same practices as those identified in Exs. 2 and 3a and 3b, for introducing the possibility of surgery in mitigated form or circuitously, are also evident in examples 4 and 5 - but in these cases not even 'surgery' is mentioned by the surgeon.

Ex.4 [Sur: 120914/P21] [S: Surgeon; P: Patient; CC: Companions] (P lost the thumb of his left hand in a work accident. Since his metacarpal bone residue is too short for anchoring a prosthetic thumb, S checks whether P is already informed about a surgical alternative to prosthesis, which would involve replacing the patient's amputated thumb with a toe)

01 S: allora dal punto di vista:: (.) uh- protesico >perché dal
so from the uh prosthetic point of view because from the
((*gaze to P*))

02 punto di vista diciamo (0.2) ricostruttivo:, (.) a questo livello:,
let's say reconstructive point of view at this level

((gaze to P))

03 forse lei si era=mhm: i-informato:,(0.6) cosa si può fare:,>dal
perhaps you mhm looked for information what can be done from a

04 punto di vista ricos^truttivo<=^si è informato::, (.)
reconstruction point of view did you look for information
^((gaze to CC))
^((*gaze back to P*))

05 bisognerebbe trasferire (0.2) un dito:: [del piede^ 'na cosa u-un
it'd be necessary to transfer one digit of your foot a thing r-
^((*gazes to CC*))

06 P: [**°ahmhm°**/((*lowers gaze and shakes head rapidly and repeatedly, raises right hand and smiles)*)

07 S: po':::: di^ciamo: molto molto:::=
rather let's say very very

08 CC: ^((*both shake their head to say "no" while gazing at S*))

09 P: =non ci intere[ssa ((smiling))
we are not interested in it

10 S: [ecco=hhə. (0.2) dal punto di vista protesico., (.)
there from the prosthetic point of view

11 in questa situazione possiamo mettere una protesi a guanto.
in this situation we can apply a prosthesis like a glove

Here in Ex.4 the surgeon referred to a ***"reconstructive point of view"*** (lines 2 and 4) and to ***"transfer(ring) one digit from your foot"*** (line 5); no explicit reference was made to surgery, though that was implicit or proposed indirectly. The surgeon's enquiry ***"perhaps you looked for information what can be done from a reconstruction point of view did you look for information"*** (lines 3-4) - to which the patient did not respond - played a similar role as did enquiries whether a limb 'bothered' patients in Exs. 2 and 3, in attempting to establish some common ground between surgeon and patient as to the benefits or necessity of surgery. As in Ex. 3b, the surgeon described what the surgery would consist of (***"transfer one digit of your foot"***, line 5). Nevertheless, surgery was not mentioned explicitly, and the surgeon appeared cautious in elaborating on it (***"a thing r- rather let's say very very"***, lines 5-7) and continually monitored the recipients' reactions by moving his gaze back and forth between the patient and his companions (lines 1-5). More specifically, the surgeon adjusted his progressing, tentative proposal to the aversion or disapproval that was gradually emerging from the patient's and his companions' visible conduct (the patient shakes his head at line 6, then both companions do so at line 8). The patient explicitly rejects the proposal at line 8, at which point the surgeon abandoned that plan to move instead to illustrate the only feasible prosthetic option ("***in this situation we can apply a prosthesis like a glove***", line 11). Even here, surgery was not mentioned explicitly.

In Ex.5 the surgeon introduced the possibility of surgery through the kind of enquiries made in Exs. 2 and 3, ***"does it bother you does it hurt"*** (line 1), and through following up the patient's acknowledgement that it was ***"sensitive"*** (line 2) by again asking whether it bothered the patient when he (the surgeon) manipulated another part of the limb (line 5).

Ex.5 [Sur:300708/P14] [T: Technician; S: Surgeon; P: Patient] (P has lost the second and third finger in his left hand following a recent work accident with a mechanical press)

```
01 S: le dà fastidio          le fa male?
      does it bother you      does it hurt
      ((holding P's hand for examination))

02 P: mh=eh sensibilità
      mh eh sensitivity

03 S: mhm
      mhm

04 P: °sopra°
       above

      ((S examines P's hand for few seconds, consulting T and showing that
        it is the joint that is stiff ))

05 S: le dà:: le dà fastidio questo?
      does it does it bother you this?
      ((referring to a point below the second proximal phalanx, the joint with
        the metacarpal bone))

06 P: no, no=no.
      no  no no

07 S: perché volendo          lì:   si può togliere questo.
      because if one wants it there one can remove  this
      ((touches P's hand in the region where the cut can be made))

08 P: (1.2)/((P raises gaze on S and lowers on his hand))

09 T: gliel'hanno proposto [di togliere quella (       ) lì
      did they propose to you  to remove   that          there

10 P:                      [no (.) no.
                                no     no

11 S: perché  togliendolo::, °uh::°  si può chiudere  un pochino di più lo
      because if removed      uh     it can be closed a  little  more   the

12    spazio della  mano.
      gap    in the hand

13    (0.8)

14 P: ^°ma° (0.2) °°non lo so°°^
            well        I don't know
      ^ ((looks up to S and then down to his hand))
                              ^((looks up to T and smiles))

15 S: ((bends and lowers head, shrugging his shoulders))

16 T: no. è un informazio:ne.((raising his shoulders))
      no  it's information

17 P: sì.
      yes
```

Here, as in Ex.4, the surgeon did not, throughout, refer explicitly to surgery, but instead suggested that he could *"remove this"* (line 7). Note that the prosthetic technician also referred to *removing* something (lines 9 and 11), thereby avoiding naming the procedure as surgery. There is some evidence in these cases in Exs. 4 and 5 that surgeons oriented to patients' apprehensions and reluctance about surgery, and therefore that their indirect references and other mitigating practices are all aspects of the surgeons' methods for managing real and anticipated resistance to surgical options.

4. Discussion and conclusion

4.1 Discussion

Data from medical encounters at a prosthetic clinic show that doctors employed different practices to deliver treatment recommendations, orienting to likely patients' expectations. When prescribing prosthesis, doctors delivered information about the steps leading to its application, in a straightforward manner and without opening up discussion or negotiation with the patient, thereby displaying their understanding that this is the treatment patients expected (ex.1). Conversely, when the recommended treatment was surgery, doctors used a variety of communication strategies, sharing a cautious approach and an orientation to align with patients' resistance.

The implementation of these various practices was related to how strongly patients resist or reject the treatment, as well as to the physical conditions of the amputated limb. For instance, one practice was used when a patient's condition prior to prosthesis could be improved. It consists of highlighting a potential issue with the amputated limb during physical examination and then offering surgery as a solution (exs. 2 and 3). When surgery would have involved more radical intervention, or patients displayed firmer resistance or even rejection (exs. 4 and 5), surgeons enquired whether patients were already informed about this option, to solicit them to display their stance towards the proposal. Such enquiries displayed clinicians' orientation to patients' possible resistance to accepting surgery. This is confirmed in our data where we also identify additional non straightforward practices such as not referring explicitly to 'surgery', the 'stepwise-entry format' [21], features such as hesitation markers [24] and unfinished utterances [25, 26] that together displayed the clinicians' orientation to surgery as disattending patients' expectations.

The analysis also shows that, in implementing these practices, doctors used a more bilateral type of prescription [19], as compared to the format used to prescribe prostheses. In those cases in which surgery was mentioned, doctors explored patients' stance by asking whether they wanted

surgery or had heard about this solution. Data also showed that doctors promptly aligned with patients' negative perspective about proposed surgery, by deferring or backing away from it. These findings are in line with those documented in a recent study on surgery consultations [27], showing that addressing patients' ideas, concerns and expectations and aligning with them might not always result in full engagement with the patients' perspective or with sharing decision-making. Indeed, doctors' compliance with patients' perspective, as documented in our data by doctors' immediate withdrawal from surgical proposal as a result of patients' resistance, can pre-empt patients' full access to and understanding of all the options offered in order to make an informed decision.

4.2. Conclusion

These results suggest that doctors prioritised setting up the decision-making process in a shared and bilateral way with the patient when the proposed treatment is understood as contrary to their expectations, as with surgery. Considering the mission of the clinic, at their first visit to the centre, amputated patients' main expectation is to have a prosthesis applied. This is demonstrated by doctors' prescribing prosthesis in a straightforward and unproblematic manner. In cases where the physical examination of the limb leads doctors to consider and introduce surgery as an alternative to prosthesis application, they adopt communicative strategies orienting to surgery proposal as likely to be resisted by patients. In line with the principles of patient-centred care, the design and sequential progression of the surgery proposal displayed doctors' inclination to elicit the patients' stance, casting the decision as ostensibly conditioned by patients' acceptance. The cautious and circuitous manners doctors used to introduce the surgical option, as well as the doctors' monitoring patients' responses and their promptness in detecting and aligning with the patients' upcoming resistance, display the delicacy of this endeavour and doctors' orientation to patients' expectations.

4.3 Practice implications

The doctors' promptness in accommodating patients' resistance to surgery and the consequential referral (ex. 3) or withdrawal (ex. 4 and 5) of the surgery proposal might entail a decision-making process that does not necessarily go in the direction of the best solution for the patient. While the withdrawal of a proposal that patients reject or resist can be considered a patient-centred solution, in practice it might not be such, insofar as it can preclude a comprehensive information and understanding of the proposal. This study's findings demonstrate that doctors are aware that shared decision-making and patient-centred care are important, especially when life-changing decisions such as the application or not of a prosthesis to an amputated limb are at stake and patients display their

concern, hesitancy and resistance. However, these findings also pose important practice implications and interrogate the clinicians' exercise of their authority in delivering treatment recommendation. In line with this, while doctors should be aware of the extreme delicacy of their task, as indeed our data show they are, they should also realize that understanding the patients' concerns and aligning with their perspective should not curtail the amount and depth of the information provided.

Doctors in prosthetics clinics might adopt a more balanced communicative strategy that takes into account patients' perspectives, concerns and expectations, whilst but also providing patients with the necessary information to collaborate meaningfully to decision making.

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[i] The physiatrist is a specialist in the diagnosis and treatment of diseases and injuries that may affect the locomotor system and/or peripheral nerves.

Proposing surgery at the prosthetic clinic: **managing** patient resistance

Declaration of competing interests:

As a corresponding author, on behalf of all the authors, I declare that all the authors of this paper do not have any competing interests that could have inappropriately influenced our work.

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Proposing surgery at the prosthetic clinic: managing patient resistance

1 Introduction

Amputees are routinely prescribed the application of an artificial limb and a rehabilitation process [1-2]. However, surgery may also be recommended as an elective treatment in addition or as alternative to prosthesis. Therefore, a decision-making process may be in play. This study draws on a corpus of 'first visits' at a clinic linked to a public social insurance institution that provides prosthesis and rehabilitation for patients who suffered amputations, mostly as a consequence of work-related accidents. These patients are referred to the clinic to be evaluated by a multidisciplinary panel of specialists regarding the application of a prosthesis. In our corpus, a prosthesis is prescribed in most of the cases, while surgery is in only 14 cases. This article investigates this latter group, excluding those cases (3) in which the surgical alternative is raised by patients.

According to the principles of patient-centred communication, patients' involvement in decision-making is vital for providing solutions tailored to the patients' psychosocial and physical needs [3-5]. Nevertheless, little is known about how treatment decisions are actually made in prosthetics clinics, and about how doctors introduce and explore post-amputation solutions in order to foster shared decision-making [6]. Few studies have investigated prosthesis users' perspectives, values and preferences, or their satisfaction with their communication with their prosthetists [1, 7 and 8]. Results show that the quality of communication, including patients' understanding of the key factors influencing the decision-making process, stand out as fundamental. Prior studies reporting patients' perceptions of their communication with prosthetists and other physicians are mainly based on post hoc accounts and reports. Therefore, there is a gap in knowledge of how decision-making is accomplished in prosthetic clinical practice. The present study uses conversation analysis to investigate this process. Previous literature adopting a conversation-analytic perspective on decision-making in healthcare [9-12] highlights the importance of doctors' communication practices in enhancing shared decision-making with patients [4, 13].

This article focuses on the way in which surgical options are presented to patients, and on their reception. Results show that, in this setting, doctors use direct, straightforward practices to prescribe prosthesis. By contrast, they use circuitous and less direct communicative strategies when they are introducing possible surgery, thereby displaying their orientation to the patients' likely resistance. These strategies include enquiring whether patients have experienced discomfort in the amputated limb, sometimes avoiding explicit reference to surgery, and enquiring whether patients 'have heard about surgery' in order to explore their stance towards it. Doctors' cautiousness displays their anticipation that patients may be unwilling to undertake surgery. Indeed, in most cases, patients

display resistance to the proposal and reject it. The delicacy involved in presenting the proposal is also evidenced by the doctors' orientation to promptly aligning with any early signs of patients' resistance and by their deferral of or withdrawal from the decision about surgery.

2 Methods

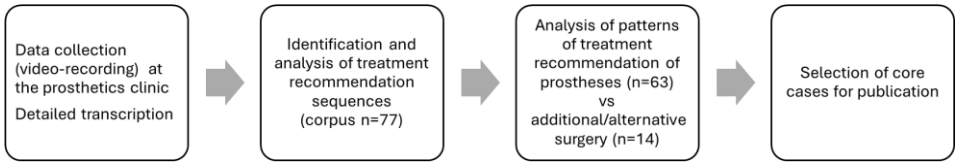
Data:

This study draws on a corpus of video recorded medical visits by 77 patients (38 with upper limb amputation; 39 with lower limb amputation) and 24 healthcare professionals, including surgeons, physiatrists[i], prosthesis engineers and technicians, and nurses. The recordings using multiple cameras were collected between 2010-2012 at a prosthetics clinic in northern Italy; they totalled approximately 24 hours. Ethical approval was obtained by the Ethics Committee of the University of (omitted) (approval n. 135371). All participants provided written informed consent. The visits were scheduled 'first visits' as part of the post-amputation rehabilitation pathway normally leading to the application of a prosthesis. During these visits, physicians assess the status of the patients' residual limb(s) through physical examination, in order to determine whether patients can receive a prosthesis, if so of what type (e.g., functional or aesthetic), or whether instead surgery was advisable.

Analytic procedure:

Conversation analysis (CA) provides the framework for data transcription and analysis [14, 15] which developed as depicted in Table 1 (see Appendix 1 for transcript conventions). Due to its detailed and strictly empirical approach to explaining social actions, CA is recognized to be a suitable tool to identify the communication practices used by professionals and patients [4]. The analysis focuses on details of the design and sequential positioning of participants' (doctors and patients) talk and visible conduct that are observably consequential for producing, delivering, and responding to treatment recommendation.

Table 1. Diagram of the data collection and analytical flow



Treatment recommendation sequences were distinguished according to the type of treatment (prosthesis vs surgery). According to CA's inductive, data-driven approach [16], such distinction

reflects the way the participants themselves ostensibly treated recommending either of the two treatments as configuring a distinct interactional business with specific practical implications. The validity of the proposed analysis thus lies primarily in the adherence to the participants' emic perspective as manifested in their sequential actions.

Patterns underlying each type of treatment recommendation were identified particularly with regard to the sequential unfolding and design (syntactic formatting, lexical choices) of doctors' actions, and to the positioning and type of patient's responses (acceptance/rejection and forms of resistance). Relevant details pertaining to the participants' embodied conduct were also considered. To enhance the validity of the analysis, instances of the identified patterns were compared to check their association with observable interactional goals [17].

The transcripts accompanying the analysis in the following section enable the reader to independently check the validity and transparency of the claims being advanced.

3. Results

In our corpus, prosthesis prescription was adopted in 84% of all visits, while surgery was offered in the remaining 16%. As shown in the following analysis, the interactions developed in different ways, depending on the type of treatment that was prescribed. In what follows we illustrate one case of prosthesis prescription and then the less direct practices employed to suggest surgery.

Before that, a note about our use of 'prescription' is in order. 'Prescription' may be commonly understood to be a written instruction by the doctor about medication the patient should take. It might therefore be supposed therefore that 'treatment recommendation' [18] would be more appropriate. However, two factors inform our use here of 'prescription. First, there is nothing equivalent in Italian to 'treatment recommendation'; there is a single word (*prescrivere*) covering instructing patients about treatment, including medication, and patients' records in the prosthetics clinic specifies 'prescription'. Second, when surgery might be an option, doctors do not straightforwardly 'recommend' that treatment.

<u>The prosthesis prescription - a direct format</u>:

In Extract 1 the clinician (technician) prescribed prosthesis in a direct, straightforward format. The extract exemplifies common aspects of all the occurrences of this prescription type.

Ex.1 [Prost:300708/P1] [T: Technician; P: Patient] (P lost part of her second finger during a work accident. This follows the physical examination)

01 T: adesso va in reparto, dove facciamo
now you'll go to the ward where we make

02 le pro:tesi? <le ve::de così capisce
prostheses you'll see them so you understand

03 bene di cosa si tratta, poi partiamo con questo
well what this is about then we'll start with this

04 coprimonco:ne, [e dopo un po' di tempo
stump cover, and after a little while

05 P: [sì.
yes

06 T: si passa alla protesi.
we'll move on to the prosthesis

07 P: va bene.
alright.

While the doctor who performed the examination is filling in the medical record, the technician (T) gave the patient (P) instructions and information concerning a visit to the lab where prostheses are produced. First, T instructs P on what to do next (ll.1-2: ***"now you'll go to the ward", "you'll see them"***); then he announces what they (the doctors) will do (ll:3-4: ***"then we'll start with this stump cover", "we'll move on to the prosthesis"***).

By moving straight to the illustration of the next steps leading to the prosthesis application, clinicians did not thematise the prescription phase but actually skipped it. In this way, the decision was presented as the doctor's unilateral decision [19, 20], taken for granted and independent from any negotiation with the patient. Furthermore, with this concise, straightforward practice, doctors displayed their orientation to the prosthesis prescription as the default solution from both their own and the patient's perspectives.

The option of surgery:

In contrast to the direct and unilateral ways in which surgeons directly prescribed prosthesis, as illustrated in Ex.1 (***"now you'll go to the ward where we make prostheses",*** lines 1-2), they were less direct, more cautious and gradual in suggesting surgery. **In what follows, we highlight some of the ways in which surgeons approached the option of surgery more cautiously, through i) a gradual or stepwise approach, ii) enquiries that can lead to something like 'online commentaries' of what the surgeon can see, and iii) elusive or implicit references to surgery.**

i) Gradual or stepwise approach to suggesting surgery: When surgeons were inclined to suggest surgery, either as a preliminary to or instead of prosthesis, they prepared the ground, leading up to the possibility of surgery by asking patients about their experience of the relevant, compromised

limb. For instance, in this next example, the surgeon did not immediately refer to 'surgery' upfront but rather led indirectly into the possibility of surgery.

Ex.2 [Sur:120912/P22] [S: Surgeon; P: Patient] (P had a work accident three months earlier in which the third and fourth fingers of his left hand were damaged)

01 S: faccia il pugno? ((*makes a fist himself*))
make a fist

02 P: ((*makes a fist*))

03 S: il fatto che non si piega completamente, le dà un po'
the fact that it doesn't bend completely does that
((*S manipulates and examines P's hand*))

04 ^fastidio sì?
bother you yes?
^((*S raises his gaze to P, who is standing in front of the doctors*))

05 (2.0)/((*P shakes head slowly side by side, smiles with protruded lips, and opens right arm*))/((*S keeps gaze on P*))

06 P: sì. però:::,
yes but

07 S: [però riesce? eh.
but you manage eh

08 P: [(va bene così) no va bene così ((*smiling*))
it's ok this way no it's ok this way

09 S: non vorrebbe fare un intervento per migliorare la tensione?
wouldn't you like a surgery to improve the tension
((*gazing at P*))

10 (0.6)/((*S maintains his gaze on P*))

11 P: ^ma s:::ì, se si può fare sì.
well yes if it is possible yes
((S *lowers gaze on P's hand*))

Before asking the patient about surgery (in line 9), the surgeon first asked the patient to move the limb (***"make a fist"***, line 1). In response to the patient's attempt to follow that instruction (line 2), the surgeon formulated a trouble the patient encountered (***"it doesn't bend completely"***, line 3), then asked the patient whether the stump of the limb bothered him, i.e., troubled him. The preference associated with the surgeon's enquiry is highlighted by his having added the tag *yes* to the enquiry (***"does that bother you, yes?"***, lines 3-4). Sure enough, the patient answered according to that preference, although seeming about to add a possible caveat or qualification (***"yes but"***, line 6). The surgeon intercepted whatever had been going to be that caveat, offering on the patient's behalf something like a stoical response to adversity, i.e. he still *manage(d)* (the problem, by bending his hand) (line 7), thereby leaving intact the likelihood that the limb was 'bothering' the patient; in this way the surgeon aligned with the patient's anticipated resistance to admit fully that there was a problem.

This sequential approach to suggesting surgery is akin to 'stepwise entry into advice giving' observed in encounters between health visitors and first-time mothers in the UK [21], in which a problem is established through a sequence in which the health visitor enquires after the mother's/baby's condition, in preparation for and to set up delivering advice about what might remedy that problem – here, that surgery might relieve the discomfort (***"surgery to improve the tension"***, line 9). Moreover, the patient-oriented negatively constructed enquiry about his preference (***"wouldn't you like"***, line 9) adds force or pressure to the enquiry [22]. This negatively framed enquiry bordered on offering surgery to the patient - an 'offer' which the patient accepts (***"well yes if it is possible yes"***, line 11) - which contrasts further with the surgeon's unilateral, declarative prescription in Ex.1.

ii) <u>Surgeons' enquiries and online commentary</u>: The indirectness with which the surgeon approached *asking the patient about* rather than outrightly *prescribing* surgery is evident also in this next example, in which the surgeon likewise does not initially refer to surgery but leads into what might be 'necessary' by similarly asking the patient whether the limb *bothers* him (line 4). For convenience, this example is shown in two parts: in the first, Ex.3a, as he held and examined the patient's hand, the surgeon remarked on 'noticing' ***some nail residue"*** (line 2); this is confirmed by the patient (line 3), in response to which the surgeon asked ***"does that bother you a little"*** (line 4).

Ex.3a [Sur:120912/P25] [S: Surgeon; P: Patient] (P had a work accident four months earlier in which he lost part of his right little finger)

```
01 S: ((drops the pen he was using to fill in the form,
        reaches for P's hand and grasps it))

02 S: okei vediamo un po',       qua  è rimasto un residuo ungueale
      okay let's   have a look, here there is some nail residue
03 P: sì. qualcosa    è  rimasto.
      yes. there is still something
04 S: mhm. le dà fastidio un pochi:no
      mhm. does that bother you a little
05 P: ((facial expressions that minimize))
06 P: relativamente.
      moderately
07    (0.6)
08 P: poco      direi.
      a little I would say
09 S: əh perché qua:,=mhm::: deve:::     #uhu:.hh (0.2) se vogliamo (0.2)
      eh because here    mhm  you should  uhu:.hh       if we want
10    rimuovere tutto      >biso' far un interventino.<
      remove    everything it is necessary to do a little surgery
11    togliere::, (.) tutta sta  parte qua. ((smiles, gazing at P))
      to remove       all   this part  here
12    (1.2)
      ((a few lines are omitted))
```

20 S: se le dà fastidio 'sta cosa qua biso'a
if this bothers you this thing here it is necessary
21 far un tagliettino rimuovere tutto,
to make a little cut remove everything

Here also, as in the previous case (Ex. 2), during the physical examination the surgeon observed something about the patient's limb (***"some nail residue"***, line 2). The practice of describing what a doctor is seeing during a physical examination (online commentary) has been shown to be associated with building alignment between doctor and patient [23]. Whilst the surgeon did not formulate the observed condition as an issue to be addressed, as a potential problem (cf. ***"it doesn't bend completely"***, Ex. 2 line 3), nonetheless, he asked the patient whether what was observed (the nail residue) bothered him (line 4), to which the patient answered here as the patient did in Ex.2, with a downgraded confirmation that it bothered him (***"moderately"***, line 6), which he further downgraded in ***"a little I would say"*** (line 8). That was, however, sufficient confirmation of 'bother' for the surgeon to raise the possibility of surgery. He did so in a turn (lines 9-11) the complexity of which resulted from several self-corrections implementing changes in direction. But the most salient ways in which the surgeon was circumspect in introducing the suggestion of surgery was that i) the suggestion was made in a conditional form (***"if we want to remove everything"***, lines 9-10), ii) suggesting (***"a little surgery"***, line 10), and iii) repeating the 'necessity' not of surgery but of making ***"a little cut"*** (lines 20-21). Each of these features of the turn design suggesting surgery contributed to this being less direct than the formats used to prescribe prosthesis. The interaction continues:

Ex.3b [Sur:120912/P25] (Some lines omitted in which P told about the nail having grown after the amputation)

33 S: niente per far una cosa omogenea biso'a fare
anyway to get a homogeneous result it is necessary to do a
34 (1.0)((S *clicks on the pen to make it write*))
35 S: un interventino, si fa un taglietto, (0.4) a bocca di pesce, si rimodella
little surgery, one makes a little cut a fish-mouth cut one reshapes
((*while writing on P's finger*))
36 S: un po' l'osso si toglie la matrice, e questa parte un po'
the bone a little removes the matrix and this part to some extent
37 in modo tale che diventi (.) tutto omogeneo.
so as to make it all homogeneous
38 (0.2)
39 S: solo che bisogna fare un intervento.
it's just that it is necessary to do a surgery
40 P: e quindi? si bisognerà fare l'intervento.
and so yes it will be necessary to do the surgery
41 S: s::ì, no, nel senso se::: le dà fastidio
yes no I mean if this bothers you
42 P: no non mi dà fastidio però-
no this doesn't bother me but

43 (2.0)

44 S: >perché< dal punto di vista diciamo, (1.0) e::: per rendere
because from the point of view let's say e::: to make

45 una cosa più completa::: si potrebbe fare quest'intervento qua.
one thing more complete one could make this surgery here.

46 S: [.hhh

47 P: [fastidio non me ne dà. (.) >però< [°eheh°
discomfort I don't feel it but eheh

48 S: [vuole vedere
do you want to evaluate

49 eventualmente magari mettiamo una- una protezione da lavoro
perhaps maybe we can put a a protection for working

50 vedere come va:,se dà fastidio poi dopo facciamo 'sto ritocchino.
see how it goes if it bothers you then we make this little touch up

51 P: sì.
yes

In Ex.3b the surgeon continued to be circumspect in pursuing the suggestion that surgery might 'be necessary' to alleviate the problem by employing the same practices of representing surgery as conditional (*"if this bothers you"*, line 41) even following the patient's apparent acceptance or resignation (*"and so? yes it will be necessary to do a surgery"*, line 40). The surgeon referred to *"a little surgery"* (lines 33-35), describing the surgery as *"a little cut, a fish-mouth cut"* (line 35), and explaining that surgery would 'homogenise' or complete the healing process (lines 33, 37, 44-45). At no point did the patient respond encouragingly to these pursuits by the surgeon, although he was equivocal in not ruling out having discomfort (lines 42 and 47). The surgeon finally deferred the possibility of surgery (at line 50, redefined in terms of *"a little touch up"*) until they *"see how it goes"* (line 50).

iii) Elusive or implicit references to surgery: In **the** cases **above** (Exs. 2 and 3) the surgeons prepared the ground for possible surgery by enquiring about problems that the patient might be experiencing, so that surgery could be introduced as a solution to those problems (e.g. *"to improve the tension"* in Ex. 2 line 9). Moreover, surgery was introduced as a possibility (conditional forms); it was described in 'reduced' or mitigated forms (e.g. 'a little') and was treated as variously accountable (e.g. *"because ... to make one thing more complete"* in Ex.3b line 44-45). In Ex 3b the surgeon's increased tentativeness in advancing the proposal of surgery (as compared to Ex. 2) oriented to the persistent resistance displayed by the patient to recognize the need for surgery (i.e., to recognize having discomfort), which is also a similarity with the following example. Some of the same practices as those identified in Exs. 2 and 3a and 3b, for introducing the possibility of surgery in mitigated form or circuitously, are also evident in examples 4 and 5 - but in these cases not even 'surgery' is mentioned by the surgeon.

Ex.4 [Sur: 120914/P21] [S: Surgeon; P: Patient; CC: Companions] (P lost the thumb of his left hand in a work accident. Since his metacarpal bone residue is too short for anchoring a prosthetic thumb, S checks whether P is already informed about a surgical alternative to prosthesis, which would involve replacing the patient's amputated thumb with a toe)

```
01  S: allora dal   punto di vista:: (.) uh- protesico >perché dal
       so      from  the   uh  prosthetic point of view  because from the
       ((gaze to P))

02     punto di vista diciamo (0.2) ricostruttivo:, (.) a questo livello:,
       let's say reconstructive       point of view       at this level
       ((gaze to P))

03     forse   lei si era=mhm: i-informato:,(0.6) cosa si può fare:,>dal
       perhaps you mhm looked for information     what can be done   from a

04     punto di  vista  ricos^truttivo<=^si è informato::, (.)
       reconstruction point of view      did you look for information
                              ^((gaze to CC))
                                        ^((gaze back to P))

05     bisognerebbe trasferire      (0.2) un dito:: [del piede^  'na cosa u-un
       it'd be necessary to transfer      one digit of your foot a thing  r-
                                                        ^((gazes to CC))

06  P:                                                [°ahmhm°/((lowers gaze and
       shakes head rapidly and repeatedly, raises right hand and smiles))

07  S: po':::: di^ciamo: molto molto:::=
       rather  let's say very  very

08  CC:          ^((both shake  their head to say "no" while gazing at S))

09  P: =non ci intere[ssa ((smiling))
        we are not interested in it

10  S:               [ecco=hhə. (0.2) dal punto di vista protesico., (.)
                      there           from the prosthetic point of view

11     in questa situazione possiamo mettere una protesi a guanto.
       in this   situation  we can    apply a prosthesis like a glove
```

Here in Ex.4 the surgeon referred to a *"reconstructive point of view"* (lines 2 and 4) and to *"transfer(ring) one digit from your foot"* (line 5); no explicit reference was made to surgery, though that was implicit or proposed indirectly. The surgeon's enquiry *"perhaps you looked for information what can be done from a reconstruction point of view did you look for information"* (lines 3-4) - to which the patient did not respond - played a similar role as did enquiries whether a limb 'bothered' patients in Exs. 2 and 3, in attempting to establish some common ground between surgeon and patient as to the benefits or necessity of surgery. As in Ex. 3b, the surgeon described what the surgery would consist of (*"transfer one digit of your foot"*, line 5). Nevertheless, surgery was not mentioned explicitly, and the surgeon appeared cautious in elaborating on it (*"a thing r- rather let's say very very"*, lines 5-7) and continually monitored the recipients' reactions by moving his gaze back and forth between the patient and his companions (lines 1-5). More specifically, the surgeon adjusted his progressing, tentative proposal to the aversion or disapproval that was gradually emerging from the patient's and his companions' visible

conduct (the patient shakes his head at line 6, then both companions do so at line 8). The patient explicitly rejects the proposal at line 8, at which point the surgeon abandoned that plan to move instead to illustrate the only feasible prosthetic option ("***in this situation we can apply a prosthesis like a glove***", line 11). Even here, surgery was not mentioned explicitly.

In Ex.5 the surgeon introduced the possibility of surgery through the kind of enquiries made in Exs. 2 and 3, ***"does it bother you does it hurt"*** (line 1), and through following up the patient's acknowledgement that it was ***"sensitive"*** (line 2) by again asking whether it bothered the patient when he (the surgeon) manipulated another part of the limb (line 5).

Ex.5 [Sur:300708/P14] [T: Technician; S: Surgeon; P: Patient] (P has lost the second and third finger in his left hand following a recent work accident with a mechanical press)

01 S: le dà fastidio le fa male?
does it bother you does it hurt
((*holding P's hand for examination*))

02 P: mh=eh sensibilità
mh eh sensitivity

03 S: mhm
mhm

04 P: °sopra°
above

((*S examines P's hand for few seconds, consulting T and showing that it is the joint that is stiff*))

05 S: le dà:: le dà fastidio questo?
does it does it bother you this?
((*referring to a point below the second proximal phalanx, the joint with the metacarpal bone*))

06 P: no, no=no.
no no no

07 S: perché volendo lì: si può togliere questo.
because if one wants it there one can remove this
((*touches P's hand in the region where the cut can be made*))

08 P: (1.2)/((*P raises gaze on S and lowers on his hand*))

09 T: gliel'hanno proposto [di togliere quella ( ) lì
did they propose to you to remove that there

10 P: [no (.) no.
no no

11 S: perché togliendolo::, °uh::° si può chiudere un pochino di più lo
because if removed uh it can be closed a little more the

12 spazio della mano.
gap in the hand

13 (0.8)

14 P: ^°ma° (0.2) °°non lo so°°^
well I don't know
^ ((*looks up to S and then down to his hand*))

^((*looks up to T and smiles*))

15 S: ((*bends and lowers head, shrugging his shoulders*))

16 T: no. è un informazio:ne.((*raising his shoulders*))

no it's information

17 P: sì.

yes

Here, as in Ex.4, the surgeon did not, throughout, refer explicitly to surgery, but instead suggested that he could ***"remove this"*** (line 7). Note that the prosthetic technician also referred to *removing* something (lines 9 and 11), thereby avoiding naming the procedure as surgery. There is some evidence in these cases in Exs. 4 and 5 that surgeons oriented to patients' apprehensions and reluctance about surgery, and therefore that their indirect references and other mitigating practices are all aspects of the surgeons' methods for managing real and anticipated resistance to surgical options.

4. Discussion and conclusion

4.1 Discussion

Data from medical encounters at a prosthetic clinic show that doctors employed different practices to deliver treatment recommendations, orienting to likely patients' expectations. When prescribing prosthesis, doctors delivered information about the steps leading to its application, in a straightforward manner and without opening up discussion or negotiation with the patient, thereby displaying their understanding that this is the treatment patients expected (ex.1). Conversely, when the recommended treatment was surgery, doctors used a variety of communication strategies, sharing a cautious approach and an orientation to align with patients' resistance.

The implementation of these various practices was related to how strongly patients resist or reject the treatment, as well as to the physical conditions of the amputated limb. For instance, one practice was used when a patient's condition prior to prosthesis could be improved. It consists of highlighting a potential issue with the amputated limb during physical examination and then offering surgery as a solution (exs. 2 and 3). When surgery **might** have involved more radical interventions, or **when** patients **more clearly** displayed resistance **to surgery** (exs. 4 and 5), surgeons enquired whether patients had already been informed about this option. Such enquiries displayed clinicians' orientation to patients' possible resistance to surgery. This is confirmed **by those indirect** practices such as not referring explicitly to 'surgery', the 'stepwise-entry format' [21], **the online commentary [23],** features such as hesitation markers [24] and unfinished utterances [25, 26] that together

displayed the clinicians' orientation to surgery as **their preferred treatment option, thereby** disattending patients' expectations.

The analysis also shows that, in implementing these practices, doctors used a more bilateral type of prescription [19], as compared to the format used to prescribe prostheses. In those cases in which surgery was mentioned, doctors explored patients' stance by asking whether they wanted surgery or had heard about this solution. Data also showed that doctors promptly aligned with patients' negative perspective about proposed surgery, by deferring or backing away from it. These findings are in line with those documented in a recent study on surgery consultations [27], showing that addressing patients' ideas, concerns and expectations and aligning with them might not always result in full engagement with the patients' perspective or with sharing decision-making. Indeed, doctors' compliance with patients' perspective, as documented in our data by doctors' immediate withdrawal from surgical proposal as a result of patients' resistance, can pre-empt patients' full access to and understanding of all the options offered in order to make an informed decision.

4.2. Conclusion

These results suggest that doctors prioritised setting up the decision-making process in a shared and bilateral way with the patient when the proposed treatment is understood as contrary to their expectations, as with surgery. Considering the mission of the clinic, at their first visit to the centre, amputated patients' main expectation is to have a prosthesis applied. This is demonstrated by doctors' prescribing prosthesis in a straightforward and unproblematic manner. In cases where the physical examination of the limb leads doctors to consider and introduce surgery as an alternative to prosthesis application, they adopt communicative strategies orienting to surgery proposal as likely to be resisted by patients. In line with the principles of patient-centred care, the design and sequential progression of the surgery proposal displayed doctors' inclination to elicit the patients' stance, casting the decision as ostensibly conditioned by patients' acceptance. The cautious and circuitous manners doctors used to introduce the surgical option, as well as the doctors' monitoring patients' responses and their promptness in detecting and aligning with the patients' upcoming resistance, display the delicacy of this endeavour and doctors' orientation to patients' expectations.

4.3 Practice implications

The doctors' promptness in accommodating patients' resistance to surgery and the consequential referral (ex. 3) or withdrawal (ex. 4 and 5) of the surgery proposal might entail a decision-making process that does not necessarily go in the direction of the best solution for the patient. While the

withdrawal of a proposal that patients reject or resist can be considered a patient-centred solution, in practice it might not be such, insofar as it can preclude a comprehensive information and understanding of the proposal. This study's findings demonstrate that doctors are aware that shared decision-making and patient-centred care are important, especially when life-changing decisions such as the application or not of a prosthesis to an amputated limb are at stake and patients display their concern, hesitancy and resistance. However, these findings also pose important practice implications and interrogate the clinicians' exercise of their authority in delivering treatment recommendation. In line with this, while doctors should be aware of the extreme delicacy of their task, as indeed our data show they are, they should also realize that understanding the patients' concerns and aligning with their perspective should not curtail the amount and depth of the information provided.

Doctors in prosthetics clinics might adopt a balanced communicative strategy that takes into account patients' perspectives, concerns and expectations, **whilst providing patients** with the necessary information to collaborate meaningfully **in** decision making.

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[i] The physiatrist is a specialist in the diagnosis and treatment of diseases and injuries that may affect the locomotor system and/or peripheral nerves.

Field Code Changed