Patient involvement and language barriers: problems of agreement or understanding?

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Abstract

Objective

This study aims to explicate efforts for realizing patient-centeredness (PCC) and involvement (SDM) in a difficult decision-making situation. It investigates what communicative strategies a physician used and the immediate, observable consequences for patient participation.

Methods

From a corpus of videotaped hospital encounters, one case in which the physician and patient used Norwegian as lingua franca was selected for analysis using conversation analysis (CA). Secondary data were measures of PCC and SDM.

Results

Though the physician did extensive interactional work to secure the patient's understanding and acceptance of a treatment recommendation, his persistent attempts did not succeed in obtaining the patient's participation. In ratings of PCC and SDM, this physician scored well above average.

Conclusion

Despite the fact that this encounter displays some of the 'best *actual* practice' of PCC and SDM within the corpus, our analysis of the interaction shows why the strategies were insufficient in the context of a language barrier and possible disagreement.

Practice implications

When facing problems of understanding, agreement and participation in treatment decision-making, relatively good patient centered skills may not suffice. Knowledge about the interactional realization of key activities is needed for developing training targeted at overcoming such challenges.

Keywords: Multilingual interaction; Treatment decision-making; Patient involvement; Understanding; Conversation analysis; Communication skills; Hospital

1. Introduction

Patient-centered care (PCC) has become the norm of quality health care in many countries. A central component in PCC is the involvement of patients in treatment decision-making, i.e. through exploring patients' preferences and concerns, as conceptualized in shared decision making models (SDM) [1-3]. Patients' opportunities to accept or reject treatment recommendations can be seen as a basic form of patient involvement, built on the ethical requirement of informed consent [4-6]. A precondition for accepting or rejecting a proposal is to understand it [7, 8], and most PCC and SDM guidelines advise physicians to check and clarify understanding [1, 3, 5]. However, patients do not necessarily express their lack of understanding, or they may overestimate what they have understood, whereas physicians may overestimate the clarity of their own talk, and rarely check what patients have actually understood [9-12].

Achieving and securing understanding may be particularly challenging in encounters with non-native speakers [13], and ineffective communication with non-native speaking patients constitutes a risk to patient safety and health [14-16]. Interpreters can be used to overcome language, culture and knowledge barriers [17], but interpreters are not always used when patients have 'some' proficiency in the second language [18]. Despite these challenges, little is known about what communicative strategies physicians actually use to secure understanding on a micro level, turn-by-turn, in authentic monolingual and multilingual encounters [13, 19], let alone how understanding is accomplished in situations where not only the patient, but also the health professional speaks a non-native language. The use of lingua franca is far from uncommon in contemporary multilingual societies, where immigrants partake considerably in the health care work force [20, 21]. Contributing to fill this gap in research, the present study takes a conversation analytic approach in order to explore interactional strategies and consequences in a decision-making sequence where the physician and patient, with different native languages, use Norwegian as a lingua franca. The analytical starting point was to investigate the physician's various attempts to secure understanding and generate participation from a seemingly 'passive' patient, whose dominant contribution was minimal responses.

1.1 Minimal responses claim understanding

Minimal responses, such as "mm" and "yes," serve a variety of functions in talk. Which function is realized in a given instance depends on such things as prosodic delivery and both what it is responsive to and what happens next, making them a useful, but possibly ambiguous

resource for communication. Minimal response tokens *claim* understanding, by passing the opportunity to initiate repair and giving a go on-signal to the speaker, but do not *display* any evidence of what has been understood [22, 23]. Thus, minimal responses provide weak evidence of what is actually understood. Indeed, a study of simulated physician–patient interaction found that, in multilingual dyads, minimal responses were misleading in terms of recipient recall [24]. Another experimental study demonstrated that minimal responses, produced by distracted listeners, in positions where more specific responses (i.e. assessments) would be expected, affected the quality of speakers' narratives negatively in that speakers, for instance, "circled around and retold the ending more than once" [25].

1.2 Minimal responses in decision-making

The impact of minimal responses has been amply demonstrated in decision-making sequences across various settings. A study of ordinary conversations showed that proposals for future action require explicit statements of commitment and not merely a minimal confirmation in order for the proposal to be heard as accepted by the addressee [26]. A similar pattern has been found in treatment recommendation sequences, where physicians regularly treat *acceptance of their treatment recommendation as necessary* before moving on to the next activity [27-29]. In most settings, physicians treat patients' minimal responses, like "mm", as insufficient acceptance (i.e. displaying *passive resistance*), while explicit or elaborate affirmative responses (e.g. "okay", "that sounds good") are required to be heard as accepting the proposal [28-30]. When such acceptance is not forthcoming, a negotiation sequence usually follows, dealing with potential problems of acceptability. These two trajectories of treatment recommendation sequences are illustrated in figure 1.

1.3 Objective of study

The present study examines a series of treatment recommendation sequences that all fall under the second trajectory (see figure 1). The analysis focuses on the third part, on what the physician does after responses by the patient that are heard as insufficient acceptance. The study aims to explicate efforts for realizing patient centeredness in an encounter where achieving patient participation in decision-making was particularly challenging. It provides empirical specification of 1) what communicative strategies the physician used in order to overcome problems of establishing understanding and generating patient participation, and 2) what observable consequences the physician's efforts had for the patient's understanding and participation *within* the encounter.

2. Data and method

Available for our study by broad consent were 380 video-recorded physician-patient encounters collected at a Norwegian teaching hospital in 2007-2008 [31]. The primary data for this study were all 18 encounters with non-native speaking patients, which were transcribed and inspected for potential challenges related to language barriers. We selected one encounter for close analysis where the physician and patient used a lingua franca, and where it appeared to be particularly challenging to achieve mutual understanding and progressivity; after more than ten minutes without achieving mutual understanding and a decision, the physician suggested scheduling a new consultation with an interpreter. Additionally, as the video corpus has been measured for PCC [31] and SDM [32, 33] for other studies, performance scores for this particular case compared to total scores were extracted as secondary data. Detailed analysis of particularly difficult cases can offer insight into the 'black box' of how disruptions from the routine organization of treatment decision-making (cf. section 1.2) are generated and dealt with in actual interaction [34]. This can further our understanding of communicative challenges and potential solutions for achieving more patient-centered decision-making in encounters with a language barrier.

Conversation analysis (CA) [35, 36] is an empirical, qualitative methodology for describing 'the interactional machinery' participants rely on for accomplishing social action in authentic interaction. CA builds on accumulated evidence of the "orderliness of conduct in interaction" [37]. The present case study draws on this past work (cf. sections 1.1-2) for examining a specific episode of interaction. Based on the 'next-turn-proof procedure', detailed analysis of video-recorded interaction and transcriptions [38] enables the analyst to describe how participants understand and treat their co-participant's turns at talk. In this case, how the physician interpreted and treated the patient's minimal responses is made *publicly available through his next actions* [36].

3. Results

The following analysis of five extracts includes approximately half of the decision-making phase during the encounter. The extracts are chosen to represent a development from the physician first orienting to problems of understanding, then concentrating on potential problems of acceptability, and finally returning to problems of understanding.

The patient, with Southeast Asian background, has had a liver inflammation for several years. The etiology has proved difficult to clarify, so the patient has seen several specialists

previously, including the physician in the present case. The physician also speaks Norwegian as a second language. His pronunciation and vocabulary are heavily influenced by his first language - a neighboring Scandinavian language. The resulting mixed variety can be difficult to understand for non-native Norwegian speakers.

3.1 Orienting to problems of acceptability and/or understanding

In extract (1) the physician introduces his recommendation of taking a liver biopsy. However, repeated minimal responses lead the physician to produce several explanations and reformulations of the proposal. Transcription symbols are described in the Appendix.

```
Extract (1) (0:06:36.6)
01 D:   .hh men det som jeg har lyst på      nu. (0.3) fordi   man kan
            but what    I would like to (do) now       because one can
02      se  på blodprøverne    at  [den he- at   der  er en betennelse
        see on the blood tests that it    that there is an inflammation
03 D:                              [((circular gesture))
04      som  er der  he:le tiden.
        that is there all the time
05      (.)
06 P:   (°m°)
07 D:   og  det  er ikke så bra for deg, (0.4) .hh så det jeg tror vi
        and that is not  so good for you          so what I think we
08      skal gø:re er. (0.3) at ta: (.) en ny (.) vevsprøve av leveren.
        should do  is       to take     a  new   tissue sample of the liver
09 P:   ((small nod))
10 D:   altså  en ny leverbiopsi, hvor  vi [stikker en nål inn i levren.]
        that is a new liver biopsy where we inject a needle in the liver
11 D:                                      [((hand points to right side))]
12 P:   ((small nods))
13 D:   det [gjo]rde vi for tre år siden.
        we   did that       three years ago
14 P:       [(°m,°)]
15      (0.5)
16 D:   og  da   var der  [veldig kraftig betennelse,]
        and then there was very  heavy inflammation
17 D:                     [((circular gesture))]
18      (0.3)
19 P:   ((micro nod))
20 D:   .hh nu kun jeg godt tenke meg å se hvordan det ser ud ↑nu,
            now I would like to         see how    it looks   now
21      .h så vi kanskje kan finne ud av det nu, tre år senere om det er
           so we maybe   can find out of it now three years later if it is
22      en- e om det er enklere å se på   svaret en  det var den gang.
              if it  is easier to see the answer than it was that time
23 P:   [mm,]
24 P:   [((small nod))]
25      (0.3)
```

```
26 D:   .hhh så mitt forslag for å komme dette nærmere e:r at e:: vi
             so my suggestion to get closer on this    is that    we
27      <rett og slett tar en ny e::> leverbiopsi?
         (simply)      take a new     liver biopsy
28      (1.0)
29 D:   e:::m: du husker det? (.) du fikk s- [stukket  [nål (i deg?)]
               you remember that  you got     injected  needle in you
30 D:                                        [((points to right side))]
31 P:                                                  [ja:, ja,=
                                                         yes   yes
32 P:                                                  [((large nods))
 ((P initiates narrative about a previous biopsy test))
```

The physician's recommendation (lines 7-8) is bolstered with a rationale (lines 1-4) that may work to minimize potential resistance [39-41]. In line 10, the physician does not treat the patient's nod (line 9) as a sufficient commitment to the recommendation. The physician treats the minimal response as indicating lack of understanding, by reformulating it with another possibly more familiar reference ("liver biopsy") and by adding an explanation of the procedure in which he also points to the right side of his torso - a semantic gesture illustrating the needle in the liver [42]. Still receiving only minimal receipt (line 12), the physician, in line 13, states that the test in question is the same as the one the patient had undergone three years earlier. The invocation of the patient's firsthand experience with the test makes a response even more relevant [43]. As such, the lacking response is noticeable (line 15) and conventionally hearable as indicating a potential problem of understanding or agreement. Subsequently, the physician continues to talk, underscoring the need to solve this "very heavy inflammation" (line 16) they had found. The rationale and motivation is explicated in lines 20-22, before the physician reformulates the proposal, which he makes explicit as such in lines 26-27 ("so my proposal.."). He produces the reissued proposal with stretched words and slower pace, which may signal importance and orient to possible non-understanding, maximizing the chance for patient uptake. Given the normative expectation of patient acceptance to treatment recommendations, the 1.0 sec pause in line 28 is hearable as a marked withholding of response.

In line 29, the physician treats the patient's lack of uptake as a problem of recognition by once again appealing to him to recall the previous test, while repeating the semantic gesture from line 11. This attempt finally generates more than a minimal response, namely a twofold confirmation ("yes yes") accompanied by large nods (lines 31-32). In addition to claiming recognition, this "multiple saying" effectively treats the physician's persistent pursuit of recognition as unnecessary or overdone [44]. Indeed, in what follows (data not shown), the patient provides further evidence of recognition by initiating a narrative about his first biopsy

test several years ago. What the patient does not provide, however, is a response to the proposal, or any display of recognition that a proposal has been made.

In extract (1) the physician minimizes potential resistance with a rationale prior to the recommendation. However, in the face of minimal uptake, the physician resorts to explaining the referent, reissuing the proposal with slower pace and eliciting a display of recognition by means of a semantic gesture, thus treating the patient's minimal responses as lack of understanding of the proposal.

3.2 Orienting to problems of acceptability

In extract (2) the physician continues to pursue a response to the proposal. Between extracts (1) and (2), the patient referred to a negative blood test, implying that nothing is wrong and that a new biopsy may not be needed (data not shown). The reissued treatment recommendation starts in line 71 and is framed as a potential solution to the unresolved etiology:

```
Extract (2) (0:07:48.4)
69 D:   så: jeg er ikke helt fornøyd med som det er nu:,
        so  I   am not  quite satisfied  as  it  is now
70      (0.4)
71      og derfor så har jeg lyst til, (.) at   vi kan se  om vi får-
        and therefore I would like to      that we can see if we get
72      om vi får hjelp av å ta prøven en gang ↑til,
        if we get help of  taking the test one more time
73      (.)
74 D:   .hh det [er] tross alt tre år siden ↑sist,
            it   is  after all three years ago
75 P:           [m]
76 P:           [((micro nod))]
77      (0.5)
78 D:   .h[hh]
79 P:     [mm,]
80 P:     [((nod))]
81 D:   så:: e::: det vil være mitt e:: det vil være det jeg syns vil være
        so        that would be my      that would be what I think will be
82      mest logisk å gøre no.
        most logical to do now
83      (0.4)
84 D:   for  nå har vi undersøkt med så mange forskjellige test og prøver.
        because now we have examined with so many various tests and samples
85      (0.8)
86 D:   .hh og det er- tingene er ikke som de  skal  være.
            and it is  things  are not as they should be
87      (0.4)
88 P:   ((micro nod))
89 D:   .h så:: e: så det vil(le) være mitt forslag  til deg.
           so      so that would  be   my  proposal  to you
90 P:   ((small nods))
91 D:   .hh så med mindre du  e:r sterkt   imot, (.) .h så(h)
            so unless     you are strongly against      so
92 D:   [så så syns jeg] vi skal få gjort sådan en en test
         so so I think   we should  do    such  a  a  test
```

```
93 P:   [(h)m(h)m(h)m.]
94 P:   [((looks down))]
95 D:   innen du reiser til ((name of country)),
        before you leave for ((name of country))
96      (0.6)
97 P:   ((micro head lift))
98 D:   men det er ↑klart, (0.5) du f- får best↑emme selv altså.
        but of course            you   will decide for yourself
99      (0.6)
100 P:  mm.
101 D:  .h men jeg tror det blir vanskelig å kom- komme:: m# svaret
           but I   think it will be difficult to  get       the answer
102     på hva som egentlig er ga:lt med  den  leveren nærmere
        on what is actually    wrong with that liver   closer
103     hvis vi ikke gør ny test,
        if   we don't do a new test
104     (.)
105 P:  ((small nod))
```

The lack of uptake to the proposal (line 73), triggers several extensions of the turn, providing arguments supporting biopsy (lines 74, 81-82, 84, 86). It ends with an explicit reissuing of the proposal ("so that would be my proposal to you") in line 89, indicating that it is up to the patient to decide. Here, the physician draws on his medical expertise to give weight to the recommendation, highlighting that it has been a long time since the last test was done (line 74) and portraying it as a logical and necessary consequence (lines 81-82) in order to resolve the negative state of affairs (line 86) [45]. Each of these extensions makes relevant a response to the proposal (preferably acceptance), but this is not provided (lines 76-77, 83, 85, 87-88, 90).

So in yet another reissuing of the proposal in lines 91-95, the physician explicitly orients to the patient's potential resistance: "so unless you are strongly against". In addition to the minimal responses to the proposal, regularly treated as passive resistance [27-29], the somewhat extreme inference about the patient's opposing stance may also be drawn from the patient's mentioning of the negative results on biopsy and blood test prior to this extract (data not shown). The patient's suppressed laughter while looking down (line 94) may display his withheld endorsement of this extreme stance [46]. The patient's "silent" opposing position is further strengthened in that when a response is due, in line 96, no response follows. As a result, the physician backs down, invoking the patient's right to decide (i.e. decline) (line 98) [47, 48], before upgrading the force of the recommendation by pointing to a negative consequence of not doing the biopsy (lines 101-103).

In sum, in extract (2), the physician treats the patient's lack of responses to the proposal not as a problem of understanding (as the patient between (1) and (2) has displayed recognition of the test in question), but as passive resistance towards having the biopsy altogether. This is

evident in that the physician pursues acceptance with medical arguments while holding up the patient's right to decide (or decline) based on potential (un)willingness.

The physician continues to work towards *any* decision in what follows (data not shown), and in extract (3), he introduces the option of 'watchful waiting' as an alternative, while preserving his strong recommendation for biopsy (lines 150-154):

```
Extract (3) (0:10:27.7)
150 D:   men akkurat nu:? (1.0) vi kan gjøre to ting. vi kan velge bare
         but right   now        we can do  two things we can choose only
151      å observere observere å [håbe at ting går bra?]
         to observe observe   and hope that things go well
152 P:                            [((two small nods))]
153      (.)
154 D:   .hh [elle]r vi må gøre det som jeg foreslår.
              or     we must do what    I   propose
155 P:       [(mm,)]
156      (1.0)
157 D:   je:g e: som jeg allerede har sagt to ganger nu så tror jeg det-
         I       as  I   have already said twice    now so I think it
158      at   du        best  tjent med å få tatt sådan en prøve.
         that you (are) best served with getting  such  a  test
159      (0.4)
160 P:   [m[m,]
161 P:   [((two nods))]
162 D:     [men] e::: hvis du  syns det er [hE::lt] e::: .hh forfedeligt,
            but       if   you think it is completely      awful
163 D:                                     [((animated))]
164 P:   (h)m(h)m.
165 D:   så: e:: så   får du   selvfølgelig selv bestemme det,
         then    then you will of course  decide for yourself
166      (1.2)
167 P:   da: første gang som jeg reise- r reiste til ((country)),
         then first time that I went       went  to  ((country))
((P narrative about taking Southeast Asian nature medicine that made him a
bit better))
```

The reformulated proposal (lines 150-154) takes the form of a tilted option list, in which one option is presented as preferable to the other [49]. The patient does not respond (line 156). The physician treats the lacking response as potential resistance in lines 157-158, in which he highlights the beneficial outcomes for the patient, as opposed to previous versions of the recommendation, which had emphasized diagnostic purposes, focusing on what the *physician* wants (lines 1, 20, 71). After yet another minimal uptake (line 160), the physician again invokes the patient's right to reject if he "thinks it is completely awful" (lines 162, 165). However, the right to reject is presented as an extreme position, which the patient seems to orient to with his laughter in line 164 [46]. After 1.2 sec gap, the patient initiates a narrative about feeling better after using natural medicine (lines 167f, data not shown). Although the narrative is not directly related to the invitation to decide, it can be heard as providing reasons

for not wanting the biopsy, through its positioning at a point where a decision is expected [50]. However, as the next extract shows, the physician treats the narrative as 'off-topic talk' and redirects the conversation back to reaching a decision about the biopsy (see lines 208-209, extract (4)).

In sum, in extract (3) the physician intensifies his pursuit of acceptance, or at the least a decision, by adding an alternative option, perhaps more in line with the patient's stance, and by invoking the patient's right to decide.

3.3 Orienting to problems of acceptability and understanding

Following the patient's narrative about natural medicine, the physician resumes his attempts to elicit a response through a series of interrogatives (lines 209, 211, 216, 230). These questions effectively restrain the patient's relevant response options to a decision for or against, requiring the patient to commit or not. However, a repair initiation from the patient in line 218 invokes potential understanding problems.

Extract (4) (0:12:18.3)

```
208 D:   men hvis vi går tilba:ke til det som e som   med  den her
         but if   we go  back     to that which which with this
209      leverprøve. hva sier du     til   det?
         liver test  what do you say about that
210      (1.3)
211 D:   hva sier du til å få  tatt    sånn en leverprøve,
         what do you say about getting such a liver test
212      (1.5)
213 P:   [jeg vet ikke?]
         I don't know
214 P:   [((head sideways))]
215      (1.0)
216 D:   er du imot det,
         are you against that
217      (3.0)
218 P:   [kan du e:m gjenta?]
         can you    repeat
219 P:   [((leans forward))]
220 D:   ja altså at   vi tar  såden en
         yes      that we take such  a
221      [ny vevsprøve    fra   lev[ren=stikker    en nål   inn i levren,]
         new tissue test from  the liver injects   a needle into the liver
222      [((D points right side))  [((P nods, points to his right side))]
223      (0.3)
224 P:   mja.
         myes
225 D:   som  du  fikk gjort for tre   år  siden?
         that you had done       three years ago
226 P:   [ja tre   år  siden,]
```

```
        yes three years ago
227 P:  [((nods))]
228 D:  mm,
229 P:  >ja<
         yes
230 D:  vil du   være med på   vi gør det en gang til?
        will you go along with we do  it  one more time
231     (1.0)
232 P:  (jeg/ja) [bare:: tre   år siden]  [ikke (de:t) (en)nå,]
        (I/yes)  only   three years ago    not (that) (yet/now)
233 P:           [((leans back again))]   [((head shakes))]
```

The physician treats the lack of uptake (line 210) of the direct inquiry (line 209) as a problem of identifying the referent "that" and proceeds to disambiguate it in line 211. Although delayed, the patient now provides more than a minimal response, with a claim of no knowledge (line 213), thus resisting accepting or rejecting [47]. The use of a wh-question format makes the patient responsible for producing a content-filled response that is more likely to reveal the patient's understanding, as well as where he stands in relation to the proposal. The physician treats the no-knowledge response as indicating disagreement in that he reframes the question as a candidate answer that expresses the assumption of a negative stance: "are you against that" (line 216). After a remarkably long gap (3.0 sec) the patient initiates repair oriented to problems of hearing: "could you repeat?" in line 218. In response, it is noticeable that the physician does not repair with a repetition of the immediately preceding question, but with yet another explanation of what "that" refers to (lines 220-221), treating the problem as a lack of identifying the referent. The repeated semantic biopsy gesture and the simplified wording in the self-repair ("injects a needle into the liver") are oriented to securing understanding of the nature of the biopsy procedure. The patient claims understanding in lines 222, 224 [22].

Whereas the physician's subsequent increment (line 225) again makes patient acceptance relevant, the patient confirms and repeats (line 226), continuing to orient to the physician's turn as securing understanding rather than acceptance. In yet another pursuit of acceptance (line 230), the patient, after a one sec delay, responds with an extended, non-conforming response (line 232), possibly indicating a non-accepting stance [51]. However, his pronunciation of several of the words is unclear (cf. all the parentheses marking uncertain transcription) and there is no clear evidence that the physician or the
patient treats the response as a rejection or acceptance, so the proposal still stands without a clear answer.

In sum, the physician puts much effort into obtaining a response to the treatment recommendation. He first orients to problems of acceptability, before working to resolve possible problems of understanding. The patient limits his responses to displays of no knowledge and (non-)understanding. The negotiation follows along the same lines for several minutes (data not shown).

In the last extract (5), the physician continues his efforts towards reaching a decision, while problems of understanding seem to escalate. In lines 310-311 the physician holds off more talk about a new concern introduced by the patient, redirecting the talk back to the decision about biopsy.

```
(5) (0:15:02.7)
310 D:   .hh hvis vi lar det ligge et øyeblikk, (0.6) hvis- hvis vi går
             if   we leave that    for a moment       if    if   we go
311      tilbage til det med  den  prøve, (0.4) jeg blir nesten nødt til å
         back    to that with this test         I   almost have to
312      finne ut om vi skal-  om vi skal  bestille sådan en ↑test,
         find  out if we shall if we shall order    such  a   test
313 P:   ((micro nod))
314 D:   eller du syns   det er en dårlig ide,
         or    you think it  is a  bad    idea
315      (1.7)
316 P:   mt.h dårlig mat?
              bad food
317 D:   ne:i?
         no
318 P:   (°nei°)
         no
319 D:   .h jeg skjønner jeg er jo ((nationality)) så det er ikke så↑lett,
            I   see      I   am    ((nationality)) so it  isn't  so easy
320      (0.3)
321 D:   jeg sier (.) den her- den her [leverprøve du  fikk tatt,
         I say        this     this     liver test you had  done
322 D:                                 [((points hand in right side))
323      (0.3)
324 P:   [ja:,]
         yes
325 P:   [((nod))]
326 D:   e:: for tre år    siden.
             three years ago
327 P:   [ja:,]
         yes
329 P:   [((nod))]
330 D:   jeg kunne tenke meg å  ta   den ↑en  gang til. nu.
         I   would like       to take it   one more time now
331      (0.7)
332 D:   altså     om en må:ned for eksempel.
        (you know) in a  month  for instance
333      (0.8)
334 P:   [(m)]
335 P:   [((nods))]
336 D:   [innen] du reiser.
          before you leave
```

```
337        (.)
338 P:     mm,
339        (0.3)
340 D:     syns du det er en dårlig ide? eller vil du gerne være med på det,
           do you think it is a bad idea or would you like to go along with that
341        (1.2)
342 P:     [mm,]
343 P:     [((nods))]
344        (0.5)
345 D:     ha:?
346        (1.4)
347 D:     skjønner du       hva jeg sier?
           do you understand what I  am saying
348        (1.0)
349 P:     ja  [litt] (ja)?
           yes a bit  yes
350 P:         [((nod))]
351 D:     ja:,
           yes
352        (0.6)
353 D:     kanskje det ikke er så lett (.) med  spro:get,    kanskje jeg
           maybe   it is not   so easy     with the language maybe   I
354        undervurderet hva- hel- hva  om      du  skjønner   det,
           underestimated what     what whether you understand it
355        (3.5)
356 D:     asså det  jeg- det  jeg foreslår er at   [vi tar en ny test, en
                what I    what I   suggest  is that we take a new test a
357 D:                                              [((hand in right side))
358        ny- vi stikker en ny- .h nålen      en gang til   inn i din lever.
           new we inject  a new     the needle one more time into your liver
359        (1.5)
360 P:     m:: (1.5) jeg tror det e:r ↑ikke:: m:: (.) så bra, (0.3) men ikke
                     I think  that is  not            so good       but not
361        dårlig heller,
           bad either
362        (0.4)
363 D:     ne:i,
           no
364        (0.6)
365 P:     (er)    i:: m: (2.0) får e vondt i: e::: nær  (ribben)?
           (are)   in           gets  pain  in      close (rib)
```

In yet another reissued proposal (lines 311-314), the physician highlights the necessity to come to a decision, while upholding the patient's right to refuse, if he thinks "it is a bad idea". Instead of providing a response, the patient initiates repair (lines 315-316). His candidate guess of the last two words indicates troubles of hearing. However, "bad food" is not just a wrong guess; it suggests a more serious problem of understanding. Indeed, the physician also treats it as such: In his repair, the physician does more than simply repeating. Instead, he reformulates the whole proposal in a lengthy fashion (lines 321-332), orienting to troubles of understanding by dividing it into smaller installments (e.g. lines 321, 326, 330), making room for the patient to confirm his understanding after each step (lines 325, 327) [52, 53]. However,

when reaching turn completion, the patient's response goes from minimal to absent (line 331). Additional pursuits of a response (lines 332, 336, 340, 345) only trigger delayed, minimal responses (lines 333-335, 337-339, 341-344), or no response at all (line 346). An explicit repair initiation, designed as a general inquiry about whether the patient understands (line 347), yields a part confirmation from the patient (line 349), but not a convincing response to the proposal.

At this point, the physician suggests that he might have underestimated the language problem (lines 353-354), something the patient neither confirms nor disconfirms, allowing a 3.5 sec gap to emerge. Nevertheless, the physician makes yet another attempt to reach a decision. Several restarts in search of a simple, concrete formulation and the reuse of the semantic biopsy gesture (lines 356-358), are oriented to minimizing problems of understanding. This reformulation finally succeeds in achieving more than a minimal response from the patient (lines 360-361). However, the response neither accepts nor rejects, but it contains markers of dispreference (i.e. delay, hedges, mitigation) [54]. The physician allows for further response (lines 362-364), and the patient provides what might be heard as either a mere recognition of what will happen, or alternatively implying a possible reason for his negative stance towards biopsy (line 365).

Shortly after, the physician marks a topic shift and proposes to defer the decision and schedule a new appointment with an interpreter (data not shown). The patient accepts this new proposal and the encounter ends shortly after.

3.4 Summary and contextualization of findings

Throughout, the physician does extensive interactional work to secure the patient's understanding and acceptance. His main objective is oriented towards achieving acceptance, whilst securing understanding is treated as a necessary prerequisite. He pursues the patient's acceptance with repeated treatment recommendations, tilted option lists, arguments supporting biopsy, and interrogatives heavily biased towards acceptance, making it difficult for the patient to decline the recommendation (e.g., posing extreme 'unwillingness' as the (only) basis for declination) (cf. extracts 1-5). He pursues the patient's understanding with simplified reformulations, elicitations of recognition, installments, slower pace, semantic gestures and 'upgraded' repairs (cf. extracts 1, 4-5).

Secondary data, gathered for other studies, enables comparison of our findings to measures of patient-centered communication skills and shared decision-making performance. This specific

physician scored well above average on ratings of patient-centered communication skills, compared to all 71 physicians in 497 encounters. He scored particularly high on information giving, patient involvement, and testing for comprehension, both in this particular encounter, and in all his 7 recorded encounters, rated by observers and patients (experience and satisfaction) [55] . In addition, this encounter had the 3rd highest score on SDM in a selection of 32 encounters during which SDM was considered appropriate, with its highest scores achieved on exploring the patient's expectations and worries and clarifying understanding [56].

4. Discussion and Conclusion

4.1 Conclusion

This study is consistent with previous findings [27-29] demonstrating that physicians regularly treat patients' minimal, affirmative responses (e.g. "mm") as potential disagreement. The investigation of a single case with a language barrier reveals that physicians can additionally treat the patient's minimal responses to treatment recommendations as problems of understanding. This indicates that treatment decision-making in multilingual encounters may be particularly complex to navigate. In his pursuit of evidence of the patient's understanding and acceptance, this physician persists in reformulating, explaining, and specifying his treatment recommendation [28, 29, 57, 58]. Thus, the physician's strategies seem to align with and exemplify general guidelines for patient-centeredness and patient involvement in decision-making (SDM), namely, to work to secure understanding [3, 5]. However, despite the fact that this encounter displays some of the 'best *actual* practice' of PCC and SDM in this large data set [55, 56], our detailed analysis of the interaction itself shows it to be deficient when facing a language barrier and possible disagreement.

4.2 Discussion

This study has explored a particularly difficult situation, comprised of an unresolved etiology, a language barrier in which both parties use a non-native language, and possible disagreement between the physician and patient regarding treatment. Sequential investigation of difficult situations can be particularly fruitful for posing additional, often revealing, challenges to physicians' communication skills. How the physician deals with this situation is neither arbitrary nor uncommon: On the contrary, the strategies he uses resonate with well-known methods for resolving lack of understanding or agreement [17, 57-59], and is supported by this physician's relatively high performance score on PCC and SDM during this encounter. The high scores may reflect the physician's excessive attempts to resolve this complex

decision-making situation, but somewhat paradoxically, the close analysis reveals that these attempts do not succeed, neither in realizing patient-centeredness nor in reaching a decision. His persistent attempts fail to overcome the minimal contributions from the patient, suggesting that he lacks communicative 'tools' to adjust his overall communicative strategy. Rather, the physician's biomedically oriented project (i.e., to achieve acceptance of a specific treatment option) seems to overshadow the patient-centered elements in his behavior. As a consequence, the physician resists, or fails to recognize and explore, the patient's subtly voiced perspectives and concerns. Thus, pursuing premature commitment to a treatment recommendation in a patient-centered manner, but without dealing with subtle concerns or resistance, can be inexpedient for both parties.

4.3. Practice implications

Two implications can be drawn from this study. First, relatively good patient centered skills may not suffice when facing problems of understanding, agreement, and participation in treatment decision-making. Indeed, our interactional analysis seemed to be at odds with ratings of this encounter, perhaps calling into question how we measure what is considered best practice, especially when it comes to 'patient understanding'. We propose that close investigation of 'best *actual* practice' has the potential to identify impediments to patient-centered communication and strategies that *demonstrably* enhance patient-centeredness. Such investigation of patient-centeredness *in its sequential context* provides evidence of immediate *interactional outcomes and in situ consequences for patient participation*, offering another way of evaluating the success of (patient-centered) strategies used [60]. Future research should explore and identify communicative strategies that are successful in terms of achieving mutual understanding and participation in complex situations. For instance, whether wh-formatted questions (cf. extract (4)) may generate more substantial responses compared to e.g. yes/no-questions, and whether (non-native speaking) patients use narratives as a resource for voicing concerns or disagreement in decision-making [cf. 61].

Second, we suggest that such knowledge about the interactional realization of key activities is needed for developing training targeted at overcoming challenges such as those described here [see e.g. 62, 63]. Such training can develop professionals' ability to recognize consequences of their communicative choices, creating opportunities for reflection upon alternatives and immediate outcomes that might overcome patients' non-responsiveness or non-understanding. Thus, we propose "close looking at the world" [64], through a CA

microscope as one basis for developing training of health professionals' interactional awareness and communicative repertoire for dealing with (non)understanding, (dis)agreement, and (non)participation in decision-making, which constitutes widely recognized and pervasive challenges for achieving patient-centered decision-making [65, 66].

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Appendix: Transcript symbols

Symbol	Meaning
(1.5)	Time gap in tenths of a second
(.)	Pause in the talk of less than two-tenths of a second (micro pause)
[ ]	Marks the point of onset and end of overlapping talk
=	'Latching' between utterances, either by different speakers or between units produced by the same speaker
?	Rising intonation, not necessarily a question
.	Falling or final intonation, not necessarily the end of a sentence
,	'Continuing' intonation, not necessarily a clause boundary
::	Stretching of the sound just preceding them.
↑↓	Marked shift into higher or lower pitch
<u>word</u>	Stress or emphasis of underlined item, the more underlining, the greater emphasis
WORD	Markedly loader volume than surrounding talk
° °	Talk between the degree signs is markedly softer or quieter than surrounding talk
<word>	Slower speech rate than surrounding talk
>word<	Faster speech rate than surrounding talk
-	Cut-off or self-interruption of the prior word or sound, often done with a glottal or dental stop
.hh	In-breath. The more h's the longer the in-breath
hh	Out-breath. The more h's the longer the out-breath
(h)	Aspiration within speech, usually laughter
(( ))	Trancriber's comments on proceeding talk, e.g. description of gestures
(word)	Transcriber's best guess of an unclear fragment
( )	Inaudible talk

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