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Discussion paper

Hidden dimensions: the analysis of interaction in nurse–patient encounters

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ABSTRACT

Background It is well established that the success of much healthcare provision is strongly linked to the quality of interaction that occurs between healthcare professionals and patients. Nurse-led consultations are becoming ever more common in primary care, and patient satisfaction with this type of clinical encounter is reportedly high. While many fields of health care have been the subject of detailed interactional and socio-linguistic analysis, nurse–patient encounters are currently under-represented.
Objective This article will outline how one particular socio-linguistic approach – conversation analysis (CA) – can be applied to the investigation of nurse-led consultations. It will illustrate how the unique perspective that this method offers can reveal aspects of behaviour that would otherwise be inaccessible, and discusses the practical implications that a greater understanding of these behaviours can have for improving quality of care.
Strategy The CA method is illustrated through the presentation and analysis of data collected as part of a recent study into nurse/patient interaction in a specialist wound dressing clinic. The sequential and treatment-related consequences of a simple interactional misalignment during the initial stages of a consultation are explored, and used to demonstrate how such misalignments can impact on treatment processes.

Keywords: conversation analysis (CA), medical interaction, nursing

How this fits in with quality in primary care

What do we know?
A great deal of research has been conducted into the interactional and communication-based aspects of medical encounters – particularly general practitioner (GP)- and consultant-led consultations. Nurse-led encounters are becoming increasingly common as a primary clinical contact for patients. However, despite there being strong indications that the ways in which nurses interact with patients contribute to high levels of patient satisfaction, very little research has focused on explaining the features of these types of consultation at a micro level.

What does this paper add?
This paper gives an outline of the socio-linguistic approach of conversation analysis (CA) and how it can be applied to nurse-led encounters. A short case study derived from a consultation at a specialist wound clinic is presented. This is used to show how the CA method works, the kinds of interactional features it can expose, and how these may provide insights into the underlying behavioural elements that contribute to the unique interactional environment of the nurse-led consultation.

Introduction

While patient-satisfaction measures – and particularly those based on 'tick box' questionnaires – are open to criticism on the grounds that they can fail to adequately address the multidimensional aspects of the health professional/patient dynamic,[1] a re-occurring theme in such studies is the key role played by communication

and interaction between healthcare professionals and patients. Although there has been a degree of debate over the level of communication awareness exhibited by nurses in general,[2] the communication patterns evident in some types of nurse/patient encounters have been found to have features which in themselves facilitate higher levels of participation and negotiation in treatment processes, and by implication, impact on quality of care. It has been proposed, for example, that the ways in which specialist nurses talk to patients can incorporate very distinct qualities, such as a more negotiated or 'bilateral' approach to presenting and discussing treatment options.[3] Similarly, it has been noted that the approach nurses take to the explanation of health issues to patients can differentiate them from other, often more senior, health professionals; nurses have been found to begin treatment explanations to patients from the viewpoint of a patient's responsibility and behaviour, while the explanations that doctors give tend to begin from the viewpoint of biomedical intervention.[4] Other factors relating to the interactionally based qualities that nurses bring to their encounters with patients include the suggestion that they volunteer more procedural information than general practitioners (GPs),[5] they can often spend more time talking with patients,[1] and they are reportedly better able to utilise the everyday language of the patient groups they deal with.[6]

While knowing that a particular type of interactional approach or linguistic perspective may contribute to high levels of patient satisfaction, this knowledge is of little practical use on its own. As nurse-led encounters become ever more common in primary care, and many tasks that were previously the prerogative of GPs are now being performed by specialist nurses,[7–9] it is becoming more important than ever to understand the mechanics of the behavioural and linguistic 'work' that they undertake when they interact with patients. Research utilising socio-linguistic and micro-interactional techniques to investigate nurse-based interaction is by no means absent.[10–12] However, the field currently receives significantly less attention than other areas of medicine; while doctor/patient interaction has a long and well-established tradition of research, studies focusing on nurses are relatively scarce. This article will present an outline of how one particular socio-linguistic approach – conversation analysis (CA) – can be applied to nurse–patient interaction. A single case study from a specialist nurse-led clinical encounter will be used to show how the CA method works, the kinds of interactional and communication features it can reveal, and what implications this might have for improving quality of care.

Conversation analysis

CA is well established as a highly effective method for the investigation of interaction. It has been used in a wide variety of settings, and medical interaction has become a particularly well-represented area. CA has been used to investigate primary care interactions,[13,14] health visiting,[15] counselling,[16] mental health,[17] and complementary and alternative medicine consultations in a variety of therapeutic modalities.[17–20] Many studies have been concerned with providing a broad socio-linguistic analysis of the features of particular clinical environments,[21] but work has also focused on exploring specific aspects of interaction within these settings, such as the ways in which patients 'frame' their presenting complaints,[22] how health professionals offer diagnostic information to patients,[14] and how treatment options are presented.[24]

As a methodology, CA is largely concerned with the analysis of the verbal communicative practices that people routinely use when they interact with one another. Utilising video and audio recordings of *naturally occurring* interaction, and a highly detailed method of transcription that is designed to capture the minutiae of speech and aspects of non-verbal behaviour (see Box 1), it provides an analytical method that can expose the underlying structural 'rules' that govern how activities are composed and organised.[24]

CA has three main features: firstly, anything participants say or do, including many aspects of non-verbal behaviour,[25,26] is regarded as performing various kinds of *social action*. In the context of the medical encounter, for example, these might be interwoven with activities such as taking a patient's history, conducting an examination, and so on. Secondly, CA focuses on mapping *sequences* of actions; what one person does or says is seen as dependent on, and arising out of, what the other has done or said. Thirdly, the occurrence of these sequences can be shown to have stable, and to some extent predictable, consequences across different interactions with different participants. So again, in the context of medical interaction, we might be able to predict, for example, that if a health professional introduces an offer of treatment using a particular formulation of words, or positions the offer within other preparatory or patient-inclusive activity, the likelihood of treatment uptake by the patient may be higher.[24] The mapping of sequential patterns, and the ways in which these patterns are generated, are a key feature of the CA approach. However, unlike methods which simply code behaviour and produce statistical averages of the occurrence of particular types of activity,[27–29] CA

Box 1 CA transcription symbols

This is a simplified list of symbols that are used in the transcription of recorded data. In CA, punctuation such as full stops, commas and question marks etc are used to denote the characteristics of ongoing speech and do not necessarily maintain a conventional grammatical function.

°x°	degree signs indicate speech that is quiet relative to the surrounding talk
XXX	capital letters indicate speech which is louder relative to the surrounding talk
xxx	underlining indicates emphasis on a word (not necessarily a rise in volume)
.	full stops are used to indicating a falling intonation
,	commas indicate continuing intonation
.h	indicates an in breath
h.	indicates an out breath
↑ or ↓	indicates speech spoken with a high or low pitch relative to the surrounding talk
(0.5)	numbers within brackets indicate timings in whole and tenths of a second
(.)	a full stop within brackets indicates a 'micro pause' of less than 0.2 s
[	square brackets are used to denote the points at which speech overlaps
=	turn continuation is indicated by an equals sign

aims to provide concrete information on the specific interactional consequences of given verbal activity.[30] Further, as CA is one of the few naturalistic qualitative approaches that routinely incorporates large sets of data (i.e. extensive collections of instances within multiple interactions where a given phenomena occurs), the influence of individual participants' communication styles, or their particular psychological disposition is effectively removed.

Although much work in 'pure' CA focuses on exploring universal rules and conventions that can be applied to interaction in general, the method can also be used in a broader and more practical way, to reveal the interactional characteristics that underpin or influence a particular *setting*. Of particular interest here, of course, are settings where nurses and patients interact.

Data example: interaction in a wound-dressing clinic

The most effective way to illustrate the CA method is to present a short analytical example. The transcript extract given below (Box 2) comes from a recent CA-based study which focused on exploring the specialist nurse-led clinical environment of a wound clinic. It represents the first minute or so from a routine dressing change session between a nurse and a patient at the clinic. The consultation was originally videoed, and a detailed transcription produced using the 'Jefferson' system of notation.[31] The short list in Box 1 gives the meanings of the symbols used, but note particularly the way in which each individual's 'turn' begins on a separate line, with the points at which speech overlaps indicated by square brackets (at lines 6 and 7, for example). Pauses (given in tenths of a second) between and within turns are indicated by numbers in parenthesis, while words with stressed intonation are underlined.

At a basic level, taken purely on a reading of what the two participants actually say to one another, it can be seen that this encounter appears to be somewhat problematic. The 'turns at talk' offered by participants have a 'misaligned' feel, with the patient and the nurse seemingly pursuing parallel, and only tacitly connected turns. The sequence begins with the patient expressing concerns about how his foot has been getting progressively more painful (lines 1–5), but ends with the nurse shifting the interaction away from this topic and onto an apparently unrelated routine clinical task – that of assessing the extent to which his wound (a leg ulcer) has healed (line 60). Essentially, the issue of the patient's pain is left unaddressed, and it could be said that this is an example of the kind of consultation which – had he been given an evaluation questionnaire – would leave the patient ticking the 'dissatisfied' box. However, this may be too broad a categorisation to capture what actually occurred here. Admittedly, the nurse did not directly deal with the patient's main complaint, but through the application of CA, with its focus on sequential patterns within ongoing communication, a different perspective on the encounter may be obtained.

As outlined already, a key tenet underlying CA is the way in which interaction is seen as being constructed collaboratively: what one person says or does being influenced by, and arising out of, what the other says and does. In this case, I would suggest that the beginning of the misalignment or 'trouble' within this consultation can be traced back to the first few lines of the extract. It relates not to something the nurse says to block the issue of pain being raised, or indeed any other overt manoeuvre of this type, but rather to the linguistic formulation that the patient employs to initially express his concerns. The construction of the patient's first turn (from line 1 to 5) incorporates three elements: he starts by introducing the issue of his painful foot – emphasising how bad this has been with '... really worse sometimes on a night ...' (line 3). He continues this turn by describing how his support

Box 2 Transcript extract from a wound-dressing clinic interaction

1 Pat: But I've also been getting pain in this foot
2 here (0.2) just there on that bone (1.8) – been getting
3 really worse sometime on a night and I've had that
4 stocking on sometime(es) – been too tight
5 n been pushing me (.) me toe over there (0.3)
6 [but (.) it has=
7 Nurse: [°Yea, ths-°
8 =been helping slightly but the pain in there.
9 Nurse: Was it an open toe stocking or a closed toe stocking
10 Pat: Closed toe (1.5) it's really painful in there
11 Nurse: You've got quite a pro- prominent (0.6) bone
12 there though haven't you
13 Pat: Hm: it really hurts in there
14 (1.0)
15 Nurse: I mean we could try you with an open toe stocking
16 and see if that makes any different[ce
17 Pat: [Yea cos that's
18 killing me now when I do that (0.6) just rubbing it it
19 hurts like mad (1.2) feels like there's a blockage or
20 something in there (1.7) sometimes when I massage
21 it for a long time it hurts like mad and then the
22 following day it'll still hurt and then the day after
23 it'll seem to have eased off and start to go (1.0) I
24 don't know why that is it feels like there's some sort
25 of blockage in there an when I keep
26 massaging it [it tends to go
27 Nurse: [I think it's your venous ret- (.) I
28 think it's just that the blood's not being returned
29 properly in your ve[ins
30 Pat: [°Hm:° You can see it swollen out
31 more than owt else now (.) when I've been rubbing
32 it just slightly it tends to swell out more when I rub it
33 (0.6)
34 n-that's –that's more than one there ((unclear)) can be
35 se[en
36 Nurse: [Ye:a you've got a very prominent (0.2) sort of
37 (.) bone there haven't y[ou
38 Pat: [And that's starting to swell up
39 more and when I rub it a lot more it comes up a
40 lot further
41 (2.8) ((nurse examines ulcer on patient's right leg))
42 Nurse: That's much (0.2) that's better though isn't it (0.2)
43 it's filled in (0.3) from the bottom (2.5) so the actual
44 area of ulcers isn't (0.3) massive is it and
45 they [look healthy you know cos=
46 Pat: [No::
47 Nurse: =(they're not) (0.4) °they're not infect[ed°
48 Pat: [I'm getting a
49 lot of little ho:les in here as well appearing
50 and when – I need to put that cream on (0.2)
51 ((unclear)) the cream'll dry up inside the
52 ho:le and then sometimes come out like a
53 little plug .hh leave a little hole like

Box 2 Continued

54	erm- (0.2) like someone's drilled a little
55	ho:le in me leg ((unclear)) see them just
56	the[re (0.4) I've noticed
57 Nurse:	[Yea
58	(2.0)
59 Nurse:	Again they'll heal up once we get the venous
60	return °up°. Have we got a wound map Janet...

stocking may have been too tight, and then completes it by again mentioning his pain and physically locating it '... in there' (line 8). This relatively convoluted formulation (with the most relevant element – his pain – being split between the delivery of a secondary concern about the stocking) effectively gives the nurse multiple options with which to take the interaction forward, and in this case she chooses to focus her attention on the issue of the stocking, rather than the pain. This is evidenced by her very focused response turn: 'Was it an open toe stocking or a closed toe stocking' (line 9). From this point the topical direction of the two participants begins to diverge. The nurse proceeds to make diagnostic observations (lines 9–10), and very early on, she offers the patient a treatment option 'I mean we could try you with an open toe stocking and see if that makes any difference' (lines 15–16). The patient, attempting to refocus her onto the (for him) separate issue of what is causing the pain, responds by delivering ever more descriptive narrative sequences in which he introduces additionally 'doctorable' elements (i.e. elements a patient offers because they are seen as medically relevant or somehow supportive of their illness narrative[32]). In his turn beginning on line 17, he offers the suggestion that there may be a blockage somewhere, and similarly on lines 30–32, he backs this up by describing how the swelling reacts when it is rubbed. Finally, towards the end of the sequence (lines 42–45) when the nurse delivers a diagnosis-related turn indicating that she thinks the patient's ulcers are responding well to treatment, the patient makes one final attempt to bring the interaction round; he utilises elements of the nurse's prior turn, and builds on the observation she has begun to develop by offering an account of how he has noticed small holes appearing around his wound. Even this, however, does not divert the nurse. She completes her examination, states that the holes will heal up once the problem with the veins is addressed, and calls for her assistant to bring a wound map. This topic change effectively shifts the interaction from a 'presenting complaint' phase, into a 'diagnosis/treatment offer' phase, and past the point where the patient might routinely expect to be able to introduce symptomatic information to influence the treatment he is going to receive.[33]

Essentially, even though there is a misalignment here which ultimately leads to the patient not receiving direct treatment for his pain, further analysis of interactional features reveals that the consultation should perhaps not be regarded as 'failing' in a professional sense. There are several factors which support this: firstly, the relative timing and overall structure of the extract is characteristic of two participants who are in close alignment (in the sense that the interaction is 'balanced', and neither party dominates or significantly overrides the other). Apart from the nurse's overlap on lines 26/27, when she delivers a fairly categorical diagnostic turn 'I think it's your venous ret- (.)...' the nurse and patient overlap each other at points of speech which routinely indicate a close attending to what the other is saying; a basic feature of ongoing conversation is that participants often start a reply turn just before the other person has finished speaking. These 'terminal onsets' can be seen occurring at lines 16 and 17; 29 and 30; 35 and 36; 37 and 38; 47 and 48. Another important positive feature of the interaction is that even though she appears to have decided on her treatment decision early on, the nurse consistently allows the patient space to develop relatively long narrative sequences without interruption. And similarly, before and during her examination of the patient's leg, she engages in 'online commentary',[34] whereby she volunteers descriptions and interpretations of what she is seeing (i.e. lines 36 to 37, and 41 to 48). All of these features combine to produce a picture of an interaction which, although it ultimately fails on the clinical level, still contains the underlying positive interactional features often reported in nurse-led encounters.

Implications for quality of care

Using a very basic analysis of a section from a single nurse-led consultation, I have attempted to show some of the interactional detail that CA can reveal.

Taking things a step further, however, it should be evident that the findings that this kind of analysis generates have the potential to influence, at a very practical level, the ways in which health professionals (and not only nurses) view their interactions with patients. Although it would be impractical to suggest that practitioners routinely engage in detailed CA-based analysis of their consultation behaviour, training initiatives that make use of the naturalistic sequential and consequential mapping that CA provides can have an edge when it comes to illustrating the subtle and often unexpected results of particular verbal (and non-verbal) actions. Being able to demonstrate how good (and bad) practice in relation to interaction actually develops at a micro level, and how specific, and to some extent predictable, behavioural motifs can aid or attenuate it, allows for an extra degree of realism and 'grounding' in clinical reality.

Conclusion

With nurse-led consultations becoming ever more common in primary care, and high levels of patient satisfaction and treatment outcomes being reported, it is important that the behavioural mechanisms that underpin these encounters receive the same level of attention as those in other medical arenas. CA is one method by which the idiosyncratic interactional environments that nurses apparently facilitate – and which patients reportedly favour – can be more fully understood.

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CONFLICTS OF INTEREST

None.

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