Emotional communication in medical consultations with native and non-native patients applying two different methodological approaches

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A B S T R A C T

Objective: To explore the potential agreement between two different methods to investigate emotional communication of native and non-native patients in medical consultations.
Methods: The data consisted of 12 videotaped hospital consultations with six native and six non-native patients. The consultations were coded according to coding rules of the Verona Coding definitions of Emotional Sequences (VR-CoDES) and afterwards analyzed by discourse analysis (DA) by two co-workers who were blind to the results from VR-CoDES.
Results: The agreement between VR-CoDES and DA was high in consultations with many cues and concerns, both with native and non-native patients. In consultations with no (or one cue) according to VR-CoDES criteria the DA still indicated the presence of emotionally salient expressions and themes.
Conclusion: In some consultations cues to underlying emotions are communicated so vaguely or veiled by language barriers that standard VR-CoDES coding may miss subtle cues. Many of these sub-threshold cues could potentially be coded as cues according to VR-CoDES main coding categories, if criteria for coding vague or ambiguous cues had been better specified.
Practice implications: Combining different analytical frameworks on the same dataset provide us new insights on emotional communication.

1. Introduction

Recognizing and responding empathically to the patient's emotions is one of the elementary tools in the patient-centred medical consultations which have positive effects on patient satisfaction and outcomes [1–6]. A number of studies have examined how patients express their negative emotions and how physicians identify and respond to these also so called "empathic opportunities" during medical consultations [2,4,7–9]. Expression of negative emotions may reflect patients' distress and concerns related to explanatory model of their illness or worries about other distressing life events or they may be an expression of psychopathology which needs attention from the health provider. In any case expressions of negative emotion explicitly or as cues may contain information relevant for diagnosis and treatment. The patients' expression of negative emotions in therapeutic encounters and attentive and emphatic responses to emotion by clinicians may be important as a part of emotion- and self-regulation and may have therapeutic effects [10,11].

Several coding systems have been developed to assess patients' expressions of negative emotions and clinicians' responses to these [12–14]. A recent example is the Verona Coding Definitions of Emotional Sequences (VR-CoDES) [15]. In VR-CoDES all hints to underlying emotions (cues), overt expressions of negative emotions and the immediate responses of clinicians are identified and coded according to specified classification rules.

An alternative system based on coding of individual utterances or turns is qualitative approaches to the study of interpersonal interaction, such as discourse analysis (DA) [16]. Very generally DA can be described as the study of language-in-use. It is assumed that language serves many functions at the same time and the analysis therefore try to answer questions about "how we use language to say things, do things, and be things" [16,17]. Thus DA offers a more holistic approach than VR-CoDES, as it focuses on several aspects of ongoing interaction rather than looking for predefined categories as VR-CoDES does.

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An advantage of VR-CoDES and similar systems is to provide quantitative assessment of emotional expression in medical consultations. There are, however, some potential limitations of the system. First, the assessment of emotional communication is rather fragmented, since only utterances classified as cues or concerns are coded. All verbal and nonverbal behaviour in between cues and concerns is left uncoded. Moreover, emotional communication is often quite subtle. One could speculate that expressions which fail to meet the VR-CoDES criteria as individual utterances may be interpreted as expressions of emotion when a qualitative analysis is applied. It would therefore be interesting to examine whether a qualitative methodological approach would produce additional knowledge about patient's communication of their worries and distress in a medical consultation which can supply those stemming from a VR-CoDES analysis.

We will suggest that a potential mismatch between a quantitative measure, such as the VR-CoDES, and a qualitative analysis could be particularly large in consultations with non-native immigrant patients. A number of studies indicate that doctors may find intercultural emotional communication challenging [18–21] while ethnic minority patients perceive communication in race-discordant consultations as poorer [22–25] and with less positive affect [26,27]. In these consultations lack of a common language can be a problem as interpreter services is often found to be underused [28–31]. In particular, differences regarding how emotional distress is expressed may confuse healthcare providers during their encounters with patients who are not native speakers of the language of communication and who may originate in cultures with different norms for expression of distress [32,33].

In a recent study of videotaped hospital encounters in Norway, Kale et al. [34], applying the VR-CoDES found that non-native patients with satisfactory language proficiency expressed significantly more negative emotions verbally compared to non-native patients with language problems as well as native patients. Non-fluent patients in the non-native group on the other hand often used unusual verbal expressions, grammatically incorrect formulations and unusual pronunciations of words that varied to different degrees, which made it difficult to code their behaviour according to VR-CoDES. We therefore decided to conduct a study in a small strategic sample in which the consultations would be analyzed both by applying VR-CoDES and DA. Our research questions are:

- When both VR-CoDES and DA are applied on the same consultations for identifying patient concerns, to which extent will we find agreement, partial agreement, and disagreement between the two methods??
- To which extent will disagreement occur more frequently in consultations with non-native patients, and whether specific underlying patterns of communication, which may elucidate such differences, be identified??
- What are the strengths and weaknesses of each approach and the possible benefits of combining them in analyzing medical consultations?

2. Methods

2.1. Sample

Twelve video-recorded consultations from a database of 56 medical consultations which were first coded by VR-CoDES as a part of an earlier study were drawn. The study material has been collected at Akershus University Hospital in 2007 and 2008.

When sampling two basic criteria has been considered: (i) the coding results from VR-CODES, (ii) the best possible variance. Thus the chosen consultations included both consultations with many cues and concerns (six consultations) and consultations with no or few cues and concerns (six consultations). Further half of each group included three consultations with immigrant patients with diverse cultural backgrounds and three patients with Norwegian background. As a part of an earlier study immigrant patients were divided into two subgroups according to their Norwegian language: Non-fluent and fluent. (This judgement was based on observation of consultations and done by two coders.) Encounters included both first time, follow-up outpatient and bedside meetings in general internal medicine, pain clinic, oncology, cardiology, and paediatrics. These twelve consultations lasted from 8 min to 57, with an average of 30 min.

2.2. Analysis methods

2.2.1. Verona coding analysis

VR-CoDES is a deductive approach with predefined analytic categories by coding of certain segments of data which organize and provide interpretations of it into quantitative findings [15]. According to the VR-CoDES, the analysis first focuses on how often and in which way the patient expresses her/his emotional distress, either explicitly (defined as "concerns", which have two subcategories) or implicitly (defined as "cues", which have seven subcategories, including a category for non-verbal cues). In this coding scheme, a concern is defined as a clear and unambiguous expression of an unpleasant current or recent emotion that is explicitly verbalized although the issue of concern may or may not be stated. A cue is defined as a verbal or nonverbal hint which suggests an underlying unpleasant emotion and lacks clarity (see Table 1 for definitions of the coding categories).

Two trained coders (one of them is EK, the first author) coded all the consultations and cases of doubt discussed afterwards with an expert (AF, co-author of this article). The inter-rater reliability was found satisfactory (Kappa = 0.61, 95% CI values from 1.4 to 5). In two consultations the identified patients were children aged 1 and 2 years (Video nr. 378 and 611 respectively). In these cases the communication between the doctor and the parent(s) were analyzed. Afterwards a coder (EK) has analyzed content of each cue and concern identified in order to categorize the topics.

2.2.2. Qualitative analysis procedures

DA (of the same dataset was undertaken by one of the co-authors of this article (KS)) who was blind to the VR-CoDES results. DA gives a framework which is inductive; allowing us to examine what *talk* can do for the individual as medium for action [16,17,35,36]. This approach focus on "*who uses language, how, why and when* but also underlines *conceptualization of language as constructive and as functional*". There has been a shift of focus in this approach from "*what do participants' responses tell us about their attitudes, beliefs or thoughts?*" to "*what is this discourse doing?*" [36 p. 93]. DA is now well recognized within qualitative psychology, and has gained currency in psychological research in medical settings [37].

DA first involved producing observational notes while watching each video-recorded consultation. These notes were intended to help create instincts and intuitions which may not be obtainable from transcripts alone [38]. Transcripts were then produced, based on Poland's instruction for transcribers, which is considered to capture a sufficient level of detail [39]. Non-verbal language including laughter and body language, when that was observable, was added to the transcript.

Following note-taking and transcribing, key steps in the process were reading, coding, analyzing, and writing [16]. Specific attention was paid to certain aspects in the communication including: turn-taking, question–answer sequence, choice of word