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VERONA CODING DEFINITIONS OF EMOTIONAL SEQUENCES (VR-CoDES)

Verona Network on Sequence Analysis

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CONSENSUS DEFINITION OF CUES AND CONCERNS EXPRESSED BY PATIENTS IN MEDICAL CONSULTATIONS

MANUAL 2016 (2008 revised)

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on behalf of the

Verona Network on Sequence Analysis

1. Definitions

Cue

A verbal or non verbal hint which suggests an underlying unpleasant emotion and would need a clarification from the health provider. Instances include:

a. Words or phrases in which the patient uses vague or unspecified words to describe his/her emotions.

b. Verbal hints to hidden concerns (emphasizing, unusual words, unusual description of symptoms, profanities, exclamations, metaphors, ambiguous words, double negations, expressions of doubt, uncertainty and hope).

c. Words or phrases which emphasise (verbally or non-verbally) physiological or cognitive correlates (regarding sleep, appetite, physical energy, excitement or motor slowing down, sexual desire, concentration) of unpleasant emotional states. Physiological correlates may be described by words such as weak, dizzy, tense, restless, low or by reports of crying whereas cognitive correlates may be described by words such poor concentration or poor memory.

d. Neutral expressions that mention issues of potential emotional importance which stand out [1] from the narrative background and refer to stressful life events and conditions.

e. A patient elicited[2] repetition of a previous neutral expression (repetitions, reverberations or echo of a neutral expression within a same turn are not included).

f. Non verbal cue:
- clear expressions of negative or unpleasant emotions (crying), or
- hint to hidden emotions (sighing, silence after provider question, frowning etc)

g. A clear and unambiguous expression of an unpleasant emotion[3] which is in the past (more than one month ago) or is referred to an unclear period of live ("I was worried about…"; "I was terrified…").

Concern (Explicit negative emotion/affect)

A clear and unambiguous expression of an unpleasant current or recent emotion[4] where the emotion is explicitly verbalized ("I worry about …"; "I am upset"), with a stated issue of importance for the patient ("*I am so worried* about my husband's illness"; "Since the illness of my husband I feel very helpless") or without ("I am so anxious"; "I am nervous"). Included are patient expressions confirming health provider's explicit assumption or question about an unpleasant current or recent emotion (Health Provider: " are you anxious?, or "you must have been shocked! " Patient: "Yes").

Questions

- Given that a question may contain cues or concerns too, they should be rated according to the same rules as defined above, but they have to be distinguished as a separate category by a "Q".

[1] This applies to: 1. non verbal emphasis of the sentence; 2. abrupt introduction of new content; 3. the patient pauses before or after the expression.
[2] For definition see paragraph 3.
[3] We consider emotion any conscious experience related to depressive or anxious mood or to a combination of Ekman and Friesen's (1969) list of basic emotions (of which we consider here only those with a negative connotation): anger, fear, sadness, disgust, surprise in terms of shock, including also shame.
[4] Si note 3

1.1 Conceptual framework for the distinction between cues and concerns (for more detail see also Del Piccolo et al., 2017)

- Cues and concerns require different patient-centred skills from the health provider. *Cues* as verbal or nonverbal hints to concerns require information gathering and facilitating skills to help patients express their concerns. *Concerns* may or may not demand exploration.
- The expression of concerns facilitates the recognition of emotional distress (clinically significant or sub-threshold) in patients.
- Cues and concerns suggest a different accessibility of patients to their emotions. To be able to verbalize one's own feelings (to express a concern) in the presence of an attentive and empathic listener is a good prognostic factor and predicts better coping in the patient. Feeling understood and sustained reduces the intensity of the emotion, reinforces the relationship with the doctor, increases satisfaction and adherence to the therapeutic treatment.
- To be informed about patients' concerns favours a problem-oriented approach to treatment.
- The expression of concerns, rather than of cues, is an indicator of how explicitly emotions are dealt with during the consultation.

1.2 Comments to cue criteria

In the subcategories (a), (b) and (c) the wording of the phrase must suggests an underlying emotion/distress.

- In **(a)** the verbal expression attempts to describe an emotion in quite vague and unspecific words with personal reference (to the patient's own feeling, whether it grammatically is expressed as *I, you, one or it*). The challenge in coding (a)-cues is to distinguish them from explicit concerns. Examples of words coded as (a)-cues: *strange, funny, odd, not so good, so-so*, etc. Examples of words that will be coded as *concerns* : *troubled, annoyed, alone, down, helpless* and of course specific emotions such as *sad, angry* etc.
- In **(b)** the verbal expression indicates (hints to) an implicit emotion. The patient does not attempt to describe, although vaguely, his/her emotion, but uses metaphors ("I am exploding", allusions ("Its better to die"), references to circumstances ("It is all so useless") or exclamations to suggest an internal state. Included are expressions such as "I really wonder about", "I don't feel like…", "I am not prepared to…", "I can't accept that…" . If the patient says: "I feel useless", the expression is coded as a *concern*.
- In **(c)** the verbal expression indicates a physiological correlate of emotion. It is not enough just to mention the physiological domain (for instance sleep), the verbal expression has to suggest an underlying emotion by emphasizing. For instance, the expression "I do not sleep very well" may not necessarily be coded as a cue. However, if the wording contains an emphasis ("I can't sleep, doctor. I can' sleep "; "I am quite sleepless these nights") it should be coded as a cue.
- In (**g**) the emotion is explicit, as is in concern definition, but is expressed in past tense and refers to more than one month ago or to an unclear period of life. Often it is part of a narrative.

In the subcategories (d) and (e) the verbal content does not in itself indicate emotion, i.e. the words used are in that sense neutral.

- **In (d)** the verbal content is neutral and has not been mentioned before. Therefore, the challenge in coding (d)-cues is to distinguish them from non-cues. Current emotion is assumed or suspected for two reasons, which both must be present (1) because the expression in some way stands out from the

narrative context and (2) because refers to potentially stressful life events or conditions. For instance, the sentence "I have cancer" is not coded as a cue if it is part of a passage in which the patient simply gives medical information. It becomes a cue if the patient gives it some sort of emphasis that makes it highlight itself from the narrative, indicating an emotion. Therefore, the context of the expression rather than the wording itself is important in coding cues according to the (d) criterion.

- In **(e)** emotion is assumed or suspected because a neutral verbal expression or a sentence is repeated by the patient, on his or her own initiative, in one of the subsequent turns. In order to be coded as cue (e) the formulation of the repeated sentence must be very similar to the previous (original) one.

In order to be coded as a non-verbal cue **(f)** the expression must not have any verbal content, but simply non-verbal behaviour as indicated by the definition. Thus, a cue is coded as non-verbal **(f)** only if the other criteria ((a) through (e)) do not apply.

The verbal cues ((a) through (e) and (g)) may of course be accompanied by a non-verbal emotional aspect, such as tone of voice or facial expression. However, in (a), (b) (c) and (g) the particular word or phrase will be sufficient to code it as a cue, independent of any nonverbal sign of emotion. In (d) the non-verbal expression may be the aspect of the word or phrase that justifies the coding as a cue. In (e) a non-verbal accompanying expression does not make any difference to the coding.

1.3 Units of analysis

The coding of cues and concerns is based on units of analysis (for the definition see the manual "*Rationale for dividing a consultation into units of analysis*").

2. Repeated cues/concerns

A cue/concern is coded only <u>once</u> when repeated in a turn, whereas <u>separate codes might occur in the same turn if they refer to different content or to different coding categories of cues (a to f) or concerns</u>. In subsequent turns a same cue/concern is always coded.

3. Cue/concern source

<u>Conceptual framework for the distinction between Health Provider-elicited (HPE) and patient-elicited (PE) cues and concerns</u>

- The expression of cues and concerns solicited, explored or facilitated by the health provider (<u>health provider-elicited</u>), are an indicator of the space given to patients to explicate their concerns (they are expected to do so) without patient needing to break "rules" or take initiatives.
- The expression of <u>patient-elicited</u> cues and concerns is an indicator of patient's initiative or active struggle to direct health provider's attention to specific worries.

All types of cues/concerns can be **HPE** as well as **PE,** as indicated also in table 1.

Health Provider-elicited cues/concerns

These are:

- all cue/concerns which are coherently and logically connected with the previous health provider turn. They may be given as response to health provider's closed-ended questions ("Are you worried?"), to open-ended focusing questions independent from the width of the focus (What makes you postpone the appointment? "What are you worried about?") or to statements which have addressed the mark.
- all cue/concerns in a turn subsequent to an open-ended non focusing question (inviting, "Tell me more...") or to a facilitation (Back channelling, echoing, expressions of empathy…), even when they imply a topic change within a patient turn.

☞ Attention. If minimal expressions ("Hmm", "Yes") are accompanied by uninviting non verbal provider behaviour (annoyed tone of voice, dismissive, doing other things, turned away from the patient) reported in the transcript or visible/ audible on the videotape, the cues/concerns subsequent to these expressions have to be coded as patient elicited.

NB: When the patient completes an already started sentence in the next turn without taking into account an attempted interruption by the health provider, the cue/concern reported is counted only once, at completion of the sentence.

Examples for doctor-elicited cues/concerns

After closed-ended question:

D: Do you feel disappointed? P "*Yes I do*" (**concern HPE**) ;

After open-ended focused question:

D: How do you feel? P: "*I feel anxious*" (**concern HPE**)

D: How do you feel? P: "*so so*" (**cue a HPE**) ;

D: How is the pain. P: "*my whole chest is in a tight band, I have to take my bra off*" (**cue b HPE)**

After a statement which has addressed the mark

D: It is high blood pressure that is the problem. P: "That is worrying ..." (**concern HPE)**

After open-ended non focused question:

D: What's the problem? P: "*Everything seems useless*... (**cue b HPE)**

D: How are you going? *P:* "*I am worried about this terrible pain* (**concern HPE)**. *Last week I also lost my job"* (**cue d HPE)**

After a facilitation

D: Right! *P:* "*I am worried about the blood test* (**concern HPE)** *and I am upset about my daughters' car accident*" (**concern HPE)**

After a statement of participation or empathy

D: This situation is not easy for you… P: " No, it isn't..." (**cue b HPE)**

Patient-elicited cues/concerns

Evidence the extent to which patients hint to or to introduce concerns of their agenda which the health provider so far had neglected, or not sufficiently explored. The patient introduces such cues/concerns

without having been solicited, invited or expected by the doctor to do so. These are all concerns/cues not directly connected with what was said in the previous exchange, representing or suggesting a topic change, or stressing the importance of the topic for the patient, except when they follow an open-ended non focusing question, a facilitation or statement of empathy.

Examples for patient-elicited cues/concerns

D: This is the next appointment for the chemotherapy. P: "I see... *I am so anxious..."* (**concern PE**)

D: What did Dr. X say?. P: " That it's gone beyond surgery. *But we need to treat the whole body, we need to treat the whole body* (**cue b PE**)

D: You are going to be all right. P: " *It's so disappointing to have done all these tests and that part was never really checked"* (**concern PE**)

D: Did the therapy improve your symptoms? (or "What about treatment effects?" or "The therapy I prescribed will relieve your pain"). P: "Mind you, no relief at all, nothing, nothing. (**cue b HPE)**. *My husband complains about the high treatment expenses we had and makes me feel guilty* ***(concern PE).***

4. Definition of current/recent importance

Conceptual framework for the distinction between expressions of current/recent concerns and mentions of past concerns

Concerns of current or recent importance (any issue, related to illness or to other stressful topic, that causes worries, creates apprehension, distress, anxiety or any other verbalized emotion to the patient) are known to be associated with emotional distress of clinical significance, therefore they are useful predictor variables. The inclusion of past concerns with uncertain current or recent importance invalidates this relationship.

Concern

- Emotion related to issue is stated in present tense.
- Emotion related to issue is stated in past tense and is still important. This can be understood from the context of the interview or by details offered by the patient ("The loss of my job last week made me very upset"). The lack of details or context information about recentness of emotion implies the classification of the expression as cue g.

Examples:

D: "Do you sleep?" P. "Not so much. *The loss of my job last week made me very upset*" (***concern PE***)

D: "How is it going?" P. "Until two weeks ago I felt very depressed" (***concern HPE****)*

D: "Are you still concerned about the radiation?" P: "*Yes I am* (***concern HPE***), last *week I didn't know how to cope* (***cue a PE***)"

D: "The doctor suggested chemotherapy?" P: "Yes, he did. I was quite shocked (***cue g PE***). D: "And when was this?" P: "Three weeks ago" (***concern HPE***).

D: “The doctor suggested chemotherapy?” P: “Yes, he did. I was very frightened (***cue g PE***) D: “And when was this?” P: “Last year” D: But how do you feel now?” P: “Oh, now I am ok (***no concern***)

If a concern without time frame is followed by the same concern with information on its recentness, the first one is coded as a cue, the second as a concern.

D: “What did the doctor tell you? P: “It was last year that he told me I had cancer. I was very frightened about my future (***cue g HPE***). D: “And now how do you feel?” P: “*Still quite worried*…” (***concern HPE***)

Cue

Time frame is irrelevant for the definition of cue, being this by definition something vague that needs exploration.

5. General comment

Coding aids

Expressions should be coded as cues or concerns plus a source indicator **HPE** or **PE**.
For cues the (a) through (g) criteria should not necessarily be coded. These criteria are meant as a coding aid. However, for some research purposes and for reliability studies the (a) through (g) criteria might be specified.

Coding decision criteria

Based on the above criteria, concerns are easier to identify than cues which are more complex. Cues tend to be vague and incomplete and by definition need exploration by the doctor.
To help in coding cues we suggest the following criteria:

- When in doubt between a cue or a concern, consider if the emotion has been clearly verbalized or made explicit in the preceding turn of the health provider. If this is the case, code as concern, otherwise as cue.
- When doubtful whether concern or cue, code as cue.
- When doubtful about cue, examine if the expression would need exploration or should be followed up. If not, skip it.
- If there are strong doubts whether the patient’s expression is eligible for coding, skip it.

6. Conclusions

The core definitions of cue and concern present the minimal common denominators on which agreement was possible.

- The focal point of the core definition is the negative emotional connotation of the cue/concern expression, with the emotion hinted or fully verbalized.
- The consensus definition is not intended to substitute the cue/concern definitions adapted in the different coding or rating systems currently in use to analyse patient-provider interactions.

References

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Summary table

EXPRESSION	DEFINITIONS	HEALTH PROVIDER ELICITED (HPE) PATIENT ELICITED (PE)
CONCERN ***Clear verbalisation of an unpleasant emotional state***	**Emotion is current or recent & issue of importance is not stated**	**HPE** *"Yes doctor, I am quite frightened"*
		PE *"And then…I feel also very depressed"*
	Issue of recent or current importance is stated (life events, social problems, symptoms, other issues)	**HPE D:** What are you worried about? P: "*That I could loose my baby*" *P: "You are right, I am upset about the bad outcome of the treatment"* D: Are you worried for the tests outcome" P: *"Yes I do"*
		PE P: "Now the headaches are not so strong…*but I am worried about the results of the tests"*
CUE ***Expression in which the emotion is not clearly verbalized or might be present*** ***The criteria of currency/recentness is not applicable***	a. **Words or phrases in which the patient uses vague or unspecified words to describe his/her emotions** **b. Verbal hints to hidden concerns (emphasizing, unusual words, unusual description of symptoms, profanities, metaphors, ambiguous words, double negations, exclamations, expressions of uncertainties and of hope regarding stated problems).** **c. Words or phrases which emphasise (verbally or non-verbally) physiological or cognitive correlates (regarding sleep, appetite, physical energy, concentration, excitement or motor slowing down, sexual desire) of unpleasant emotional states.** **d. Neutral words or phrases that mention issues of potential emotional importance which stand out from the narrative background and refer to stressful life events and conditions.** **e. A patient elicited repetition of a previous neutral expression (repetition, reverberations of a neutral expression within a same turn are not included).** **f. Non verbal expressions of emotion** **g. Clear expression of an unpleasant emotion, which occurred in the past (more than one month ago) or is without time frame**.	**HPE** D: How do you feel? P:*"I feel so so*"(a) D: How do you feel? *"It could be better"*·(a) D: How do you feel? P:"*I feel like a wet rag*" (b) *D:* How is the pain? *P*: "*The pain really stabs me*" (b) D: How is it going? P: "*The last two months I had only sleepless nights"*(c) D: How is your appetite? P: "*I force myself to eat* (c) D: What else? P:"*I just had this sad funeral"*…(d) D. What did Dr. … said to you? P: *Well*… (sighs)*… he told me that I have cancer* (d) D: How do you feel? P: *Silence (crying*, *sighing)* (f)
		PE D: How is your husband? P: He is always so nervous… *I do not feel good about him*" (a) D: Are you anxious? P: "I am (Concern), *but the worse thing is that all seems useless*"(b) D: It takes some time to get to sleep.. P: "Yeah, …And then in fact once when you are pregnant you, well, do feel very tired and just feel very exhausted, *which is not the first time as well."*(b) D: What about the waterworks? P:" That's ok. *I have this stabbing pain in my back (b)* D: Wouldn't it be useful if you had some time off? P: "I don't think I could have some time off*, cos' they're very, very…"* (b) D: How is your appetite? P: "I don't eat so much lately, *and I feel completely without energy*" (c) *P "*You know that I can't relax, yeah (pause) *Can't seem to just relax (pause*)" (c) D: Is your work tiring*? P: Besides, there is my little girl. She goes to a crèche now*… (d) P: "I worked till I started radiation" D: The weight is steady? P: It has dropped about three kilos in the last fortnight, but then maybe*, because of the radiation*… (e) *P: "And (pause) …patient cries* (f) *P* "When the doctor told me about cancer *I was so frightened*.." (g)

Some examples as coding aid

Cues

a
I (you, one, it) feel (s)… , am (are)…(unfinished sentence)
It's a strange feeling inside
I have these moments and I say oooh..
I cannot stand it anymore
You are stressed when this happens, its stressing me out.
Its too much for me
I really felt bad
You keep on trying over and over, but it's all in vain
I cannot cope
I feel terrible
I'm feeling very vulnerable
I am distressed
It just got me
I feel very tight
It just got me right now…
What I'm not coping with is…
I feel uncomfortable
I can't go on any more

b
Metaphor, Emphasis
I feel rotten inside
I feel like a wet rag
I feel cold as ice
There is this emptiness
My mind is blank
My head is in the clouds
I am off my head
I never dreamt of it
I am the black sheep of the family
I am pushed against the wall
I feel like drowning
I just want to be far away from all
I accumulate, accumulate and explode
I have no way out
I am always under pressure
I am worn-out, but not physically
I have my nerves on edge
Everything is building up on me
It gets on top of me
This one came down really hard
This knocked me down
My future is black
Its like something sticking on me and I cannot get rid of it
My battery is empty
Thunder feelings
Things are signing me
I risk a collapse
It's hard, very hard
That was devastating
It's a daunty thing
This is really a bad moment
It's a tragedy
I hate Sundays
That is the hard part of it

Uncertainty, hope (when needing exploration)
I don't know how to find relief

I have to change my life, I don't know how
I thought how long will this go on
My mother has a tumour and I don't know what will come down on me
If I just knew how to deal with it
I can't figure it out
I don't know how to say it
I was hoping... but anyway

Allusion
I have these strange symptoms
Doctor, if you would know…
Its better to die
That's the end of all
This is not life any more
With all the problems I had in my head
Now that I know..(silence)
I always was fit at work, but now…(Silence)
It's not always easy

Not being ready to..
I just can't think, I don't want to think about
I just can't believe it
I can't accept this
I am not prepared to be pushed off again…
I am not terribly keen on
I don't want to

Profanities, *Exclamation*
O my God
Heavens (Good lord)
I don't give a damn
I curse the day I met him
The bloody pain will not stop
He is really a son of a bitch

Unusual or emphasized description of physical symptoms
When I get up if I don't sort of steady myself like that, whether I would fall over or not I don't know
The pain really stabs me
I was bent in two
My body is boiling
My head is bursting
Heavy eyes, heavy legs, heavy head
These butterflies in my eyes
I get up, there is this bloody swindle, this nausea, I seem to faint
My throat feels like strangled
My fingers are dead cold
Strange sensation in my head

c
This two weeks, I eat and eat, incredibly
Already in the morning I am dead tired
I feel like crying
I have to force myself to eat
My legs are shaking
I would need something to relieve my tension
I feel this tension inside
I cannot concentrate
I feel confused, disoriented, perplexed, bewildered, mixed up
Concentration I find, it's just not good
Crying just all time
My problem is I cannot stop eating

d
We got into trouble
unfortunately, we have a problem …
The problem is…work (wife, children, stress)
My work is very stressful
The pain came on when I went through a very stressful period at work
I have cancer, doctor …(silence)
It's good to be with friends, it helps me to forget my problems
Oh.. I am really a bit isolated
How can someone say something so rude to me!?
My wife is fed up with me

CONCERN

Clinical: My problem is anxiety, depression

Sadness: I am depressed, discouraged, demoralized, unhappy, apathetic, miserable
I am without (have lost all my) enthusiasm, self esteem
I feel hopeless, I lost all my hope
I feel useless (I am of no use any more)
Nothing is of interest to me
I (am, feel) lonely, alone, abandoned at times, helpless, let down, low

Surprise: I am quite shocked (stunned)

Fear: I am worried, concerned, anxious, nervous, bothered, upset, agitated, frightened, troubled about my health (son, work etc)…, panicky
It's concerning that I ….
I am in apprehension for

Anger: I am angry (irritated, cross, grumpy, furious, outraged)
You feel betrayed, hurt, offended, disappointed, frustrated, annoyed

Disgust: I feel disgusted, nauseated, bored, appalled
I hate

Shame: I am embarrassed, shamed, humiliated, mortified,
I feel sorry, guilty, rueful

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CODING OF HEALTH PROVIDER TALK RELATED TO CUES AND CONCERNS

MANUAL 2016 (2009 revised)

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The present manual is a proposal for a coding system of health provider (interviewer) behaviour related to patient cues and concerns, as defined by the "C*onsensus definition of cues and concerns expressed by patients in medical consultations*" proposed by the " Verona Network on Sequence Analysis". Coding the reactions of health professionals to cues and concerns is necessary to make it possible to establish the effectiveness of their behaviour in relation to patient cues and concerns.

1. CODING PRINCIPLES

1.1 Coding procedure

The coding of a consultation has to pursue the following steps:

1 Coding of cues and concerns, clearly defining the key elements of the cue or concern
2. Coding of all health provider responses to cues/concerns.

The coding may proceed in two distinct modes:

- first the coding of all cues and concerns and then of provider responses separately
- Concurrent coding of cues and concerns and provider responses in real time, turn by turn (for instance when both cues/concerns and provider responses are coded by the same rater).

Coding separately permits higher reliability in provider talk evaluation: the rater cannot be influenced as he/she goes along by the nature of the cue or concern to be picked up. Coding in real time gives the rater the opportunity to hear and experience the immediate effect of a provider response and therefore has more face validity.

1.2. Dimensions of health provider responses: EXPLICITNESS and FUNCTION

The health care provider's response to the patient cues and concerns is coded according to two ***dimensions***. Each provider response will be rated according to these dimensions:

1. Whether or not the response **EXPLICITLY** or **NOT EXPLICITLY** refers to the cue/concern. This dimension indicates in whether the response of the health provider maintains the wording or the key elements of the cue/concern it refers to.
2. Whether or not the provider response **PROVIDES SPACE or REDUCES SPACE** for further disclosure of the cue or concern. This dimension represents the ***function*** of the response in terms of cue or concern disclosure. If in a given turn a provider both provides space and reduces space, both aspects of the response should be coded. This is explained in detail in the "Division into units of analysis" manual.

1.3 Choice of health provider responses

Health provider responses to be coded include:

1 ***Immediate responses***. The provider speech unit(s) in the turn immediately following (first lag) any cue or concern expressed by the patient. All immediate responses must be coded, whatever their nature

2 ***Delayed responses***. Provider speech units later in the consultation (from second lag on) that refer to previously mentioned cues or concerns. Delayed responses should be coded only when the response of the provider is *explicitly* referred to a cue/concern. When a delayed response is coded a notation (D) is added to the coding. No notation is adopted for immediate responses, as they are always coded.

Provider responses which *do not follow a patient cue or concern or do not explicitly relate to a cue/concern* are NOT coded.

1.4 Coding of provider non-verbal behaviour

When deciding how to rate a provider response, non-verbal factors can and should be taken into account as they impact on the meaning and delivery of the words. Videotapes contain more nonverbal information than audiotapes for which only tone of voice can be considered. When coding audiotapes, s*ilence* should be coded as a separate response (see paragraph 2.4.1 and 2.4.2). A turn in which there is nonverbal behaviour serving to reduce space, but where the provider verbally provides space, may be coded adopting two codes; one related to the verbal behaviour the other to the non-verbal (see "Division into units of analysis" manual).

The following aspects of nonverbal behaviour should be considered:

(a) Social distance: horizontal distance, vertical distance
(b) Eye contact
(c) Facial expression: smiling, frowning, facial expressivity
(d) Head movement:, head nodding, head shaking
(e) Bodily posture: forward/backward lean
(f) Touch
(g) Tone of voice, voice expressivity

NB: The symbol '☺' is used in the text whenever there is a comment on non-verbal behaviour

Examples:

Reducing space to cue/concern disclosure	***Providing space to cue/concern disclosure***
Withdrawal	*Reducing Distance*
Backward Lean	*Leaning forward*
Looking Away	*Maintaining Eye-Contact*
Head shaking	*Nodding*
Uninterested, bored, cold or detached tone of voice	*Warm tone of voice indicating positive emotion*
Talking to another person	*Smiling Gently*
Reading the notes, using a computer, Lack of attention, looking at watch, Looking through papers	*Non-Invasive Touching*

1.5 The question of "appropriateness"

The proposed coding system intends to be descriptive. It is not normative in the sense that it does not distinguish between "good" and "bad" responses. No response category is in and of itself "good" or "bad". Whether a response is appropriate is a matter to be established empirically as a response may be effective in one and less effective in another context, and depends on the intended outcome of the communication. Therefore the system does not take on an explicit or implicit assumption on which health provider responses are more appropriate or better.

2. THE FOUR MAIN STEPS IN CODING

2.1 Step 1. Identification of patient cue/concern

First identify the cue or concern in the patient turn, to which the health provider is responding. Identify the specific words (whenever the cue is verbal) used to express the cue or concern, both in terms of affect and content. This specificity helps to define the explicit/non-explicit dimensions. For this reason we suggest that it may be of benefit to code this dimension first as it may help in preventing a judgemental attitude by allowing a more descriptive mind set.

NB: The two dimensions (EXPLICITNESS and FUNCTION) are independent. Either dimension can be coded first, but the rate must be careful to apply the rating in a neutral way.

2.2 Step 2. Coding of health provider response as explicit or non-explicit

Decide whether the health provider responds explicitly or not to the identified cue/concern.

EXPLICIT: is any response which *specifically mentions* either the content/topic or the emotion in the cue or concern or both. The following may be the case:

a. In order to be coded as an explicit response the speech unit should include an explicit reference to the preceding cue or concern. The response can refer explicitly to either the topic, or the emotion, or both components of the identified cue/concern by applying the same or similar words as used in the cue/concern itself.
b. A response is also accepted as explicit if (1) the cue/concern includes an explicit reference to affect and/or affect related content and (2) there is no doubt that the provider's response refers to that same stated affect/content. In these cases, the response from the provider may be coded as explicit even if the label of the affect or content is not repeated. However, if there is any ambiguity whatsoever the non-explicit category should be used".
c. The topic or emotion is referred to with a slightly different wording than the cue/concern itself, but in a way that clearly represents an attempt by the health provider to understand the cue or concern, usually by paraphrasing, asking a clarification or checking the meaning of the cue/concern. (Eg.P: *"I feel down".* HP: *"So you feel depressed"*). However, if there is any ambiguity then the non-explicit category should be used.
d. A non-verbal cue is specifically referred to (eg "*What makes you cry"*, or *"That was a big sigh"*)

NON-EXPLICIT: is any response which *does not* explicitly mention either the content or the emotion of the cue or concern as specified above. This might include non-specific comments like "*How awful for you".*
NB: Nonverbal responses not accompanied by a verbal response will always be coded as *Non explicit*.

2.3 Step 3. Coding of health provider response as providing space vs reducing space for further disclosure

This relates to the *function* of the health provider behaviour in the context of the interview, *not* to the specific words or to the intention of the provider.

- **Providing space:** is any intervention which *gives space for further disclosure* of the cue/concern expressed by the patient.
- **Reducing space:** is any response or intervention which *reduces the space for* or closes down further disclosure about the cue or concern expressed by the patient.

*NB. ☺ When deciding on the function of **explicit responses, the verbal aspect of the health provider expression has priority.** Sometimes, when coding from video tapes or audiotapes, a response that verbally gives space to further disclosure of the cue/concern may be accompanied by a nonverbal behaviour that contradicts the verbal response and functions to reduce space (double communication). Only when the non verbal behaviour is clearly dismissing, the turn is classified adopting two codes; one related to the verbal behaviour the other to the non-verbal* (see "Division into units of analysis" manual).
*In Contrast, when coding **non-explicit responses**, whenever possible, **the non-verbal aspect of the health provider expression has priority.** This is because what the health provider response refers to is non-explicit and the more relevant information is therefore related to the health provider attitude, expressed by non verbal behaviour.*

After Step 3 the response will be rated as either:

- **NR: NOT EXPLICITLY (N) referred to the cue/concern with the function of REDUCING SPACE (R)**
- **NP: NOT EXPLICITLY (N) referred to the cue/concern with the function of PROVIDING SPACE (P)**
- **ER: EXPLICITLY (E) referred to the cue/concern with the function of REDUCING SPACE (R)**
- **EP: EXPLICITLY (E) referred to the cue/concern with the function of PROVIDING SPACE (P)**

Each of these four combinations has a separate column and a separate colour code in the coding system (see Figure 1) To assist in the coding and to provide more detailed description for both training and research purposes, these four categories are further subdivided. The final system has seventeen specified main categories.

2.4 Step 4. Defining individual codes

Once step 3 is done, a third letter can be added to the coding, which gives more detail as to the specific type of behaviour being used by the health provider. In the following paragraphs, coding instructions for these individual codes are described.

2.4.1 NR: Codes in which the health provider does not refer explicitly to the cue/concern and reduces space for further disclosure - (blue)

IGNORING (NRIg)

Definition: in *Ignoring* the cue or concern appears to be completely ignored. No reference whatsoever is made to either the content or the emotion of the cue/concern in the health providers' response.

☺ A silence that reduces space (on the base of non-verbal behaviour) is also considered as ignoring.

Example:

Pt: I am so worried about the operation that is scheduled for Friday.

HP: Are you still on antibiotics?

Category Code: NRIg

SHUTTING DOWN, DENYING (NRSd)

Definition: shutting down is a response which actively shuts down or moves away from the cue/concern expressed by the patient, without making specific reference to it.

☺ This also includes any non-explicit response when the health provider's body language or attention is clearly directed away from the patient (or his/her body or gaze is oriented away from the patient)

Examples:

HP "let's move on" … "OK then" … (HP looking at notes) "No, no" (HP shaking head)

Comment: The "OK then" is coded as NRSd as the attention is not directed to the cue or concern of the patient as indicated by the non-verbal indication in brackets (negative non-verbal behaviour).

Pt: I am so worried about the operation that is scheduled for Friday.

HP: Oh. Please. Don't be silly!

Comment: "Don't be silly" does not refer explicitly to the emotion expressed by the patient concern.

Category Code: NRSd

NON EXPLICIT INFORMATION-ADVISE (NRIa)

Definition: non explicit information-advise is coded when the health provider informs, gives advice or offers reassurance without referring explicitly to the cue/concern, in a generic and nonspecific way, with the function of non-inviting further disclosure.

Examples:

Pt: I am so worried about the operation that is scheduled for Friday.

HP: Everything will be OK.

Pt: I am so worried for my son...

HP: Look at the positive aspects of the situation…

Comment: the affective concern is not referred to and the health provider responds without inviting exploration..

Category Code: *NRIa*

2.4.2 NL: Codes in which the health provider does not refer explicitly to the cue/concern and provides space for further disclosure - (Yellow)

SILENCE (NPSi)

Definition: silence is when the provider provides a clear space or pause (3 seconds or more), allowing space for the patient to say more.

If there is a silence within a turn where other expressions are present, only these have to be coded.

☺ *The rater should use the providers' NON-VERBAL behaviour to confirm that this is 'use of silence' and not just lack of attention or lack of talk because something else is happening. The non-verbal behaviour MUST be consistent with 'waiting' or pausing. i.e. the provider should show eye contact, look attentive, and not be reading notes, paying attention to the computer, looking away.*

If the body language during the silence is inattentive and shows distraction the rater may consider Ignoring (NNI) as a coding

N.B.: this code is not applicable when coding audiotapes or transcripts. Any nonverbal signal proving useful for the coding is absent.

Category Code: NPSi

BACK-CHANNEL (NPBc)

Definition: back-channel is any response which provides space for the patient to say more or encourages further disclosure, through using a minimal prompt, or word, but not a full statement. Back-channelling does not make explicit reference to the content or the emotion/affect mentioned in the cue or concern.

☺ *To rate Back channelling facilitation, the health provider's attention must be directed towards the patient, and the non-verbal behaviour must be consistent with inviting further disclosure, for example by waiting for a response, nodding, smiling etc.*

Examples: Mmm, Yes, Right, Ok (all followed by a pose)

N.B.: In order to be coded as a response, the health provider does not to speak ***while the patient is still talking*** *(holding the floor) and there* ***must be a pause before the patient talk****. If the back channel is followed by other expressions of the health provider within the same turn, only these last expressions have to be coded. Therefore back-channel responses are not considered in a turn where there are also other codes.*

Example:

Pt: I am so worried about the operation [HP: OK] that is scheduled for Friday.

Category Code: NPBc

ACKNOWLEDGEMENT (NPAc)

Definition: acknowledgement is any response which provides space for the patient to say more about a cue or concern by "non-specifically" acknowledging what has been said. The response cannot explicitly mention the content or emotion of the cue or concern, but must non-the less acknowledge it has been said. It should not explicitly seek further information, but just provides space for more to be said if the patient so wishes.

Examples

Pt: "I just got upset again with it"
HP: "Did you, I hear that"

Pt: I am so worried about the operation that is scheduled for Friday.
HP: I see…

Comment: the "I see" is a non-explicit acknowledgment, since no explicit reference is given to the concern (it is not specified what the provider "sees"). If the remark has a specific content, other codes should be applied.

Code: NPAc

ACTIVE INVITATION (NPAi)

Definition: active invitation is any response which explicitly seeks further disclosure or new information from the patient *about the cue or concern*, without making explicit reference to the content or the emotion/affect mentioned in the cue or concern.

NB.: *This includes such things as "why is that", "go on", "tell me more" and any response which includes 'that' or 'it' without a univocal reference to the cue/concern.*

Example

Pt: I am very worried about the operation
HP: "Tell me more about that" (that could be the operation or the worry)

NB.: *if the patient says something that univocally refers to the content or the affect of a cue/concern then a provider response like "Tell me more about this" has to be coded as Inviting Explicit content or affective exploration.*

Code NPAi

IMPLICIT EMPATHY (NPIm)

Definition: implicit Empathy is any response which provides space for further disclosure through having an empathic function**,** without asking explicitly for further clarification or specifically mentioning the nature or the emotion of the cue or concern.

Example

HP: "That sounds hard"
HP: "I understand"
HP: "I can imagine"

Code NPIm

2.4.3 ER: Codes in which the health provider refers explicitly to the cue/concern and reduces space for further disclosure - (Green)

SWITCHING (ERSw)

Definition: when *switching* the health provider uses one of a number of behaviours which have the function of changing the frame of reference of the cue/concern. The content or emotion of the cue or concern MUST be clearly referred to.

NB: the switching response may be an invitation to talk, but not to talk about that cue/concern in the same terms introduced by the patient.

These could be when the health provider

- refers the patient to a third party/agency to talk to them about the cue or concern;
- changes the time frame/period of the specific cue or concern;
- asks how a third party feels about the cue or concern.
- asks about symptoms or emotions correlated to those expressed by the patient, but not exactly the same.

Examples:

Pt: I am so worried about the operation that is scheduled for Friday.
HP: I think you should talk to a nurse about your worry.

Pt: I was in a terrible state 4 weeks ago when he told me…
HP: how do you feel now?

Pt: I was really worried about the operation
HP: How does your husband feel about it?

Pt: I am not able to have stable relations and I feel depressed for this
HP: Which are the other feelings you have besides depression?

Category Code: ERSw

POST-PONEMENT (ERPp)

Definition: postponement is when the health provider suggests explicitly that further exploration of the cue or concern is delayed. Further talk about the cue or concern is not consented 'now' but an explicit statement is made to make clear that there is an intention to return to the subject.

Example:

Pt: I am so worried about the operation that is scheduled for Friday.
HP: I would like to talk with you about your worry in a minute.

Comment: the affective concern is explicitly referred to, but the provider postpones talking about it until later in the consultation.

Category Code: ERPp

INFORMATION-ADVISE (ERIa)

Definition: information-advise refers to an explicit response to the cue or concern, which gives information or advice, or offers reassurance. The response explicitly acknowledges the cue or concern, but does not invite further disclosure about the cue or concern.

Example:

Pt: I am so worried about the operation that is scheduled for Friday.

HP: Do not worry. Your operation is very routinely for our clinic and the probability that everything will go well is very high...

Comment: the affective concern is explicitly referred to, but the provider responds without any form of emotional participation, reducing the space for the patient to express or say more about the concern. The effect is that the affective part of the concern is moved away from but not devaluated, as in Active Blocking (see later).

Category Code: *ERIa*

ACTIVE BLOCKING (ERAb)

Definition: active blocking is a response that expresses an explicit refusal on the part of the health provider to talk further about the cue or concern, accompanied by a devaluation or disconfirmation of the patient or a refusal of what was said. This could be either on the factual or affective level. It may also include any statement that is minimising or disapproving the cue or concern.

Example:

Pt: I am so worried about the operation that is scheduled for Friday.

HP: No, no. Worrying doesn't do you any good!

Or

HP: Oh, don't worry! It is stupid to worry about a so routinely operation!

Comment: the affective concern is explicitly referred to, but the provider actively and explicitly devaluates the patient's affect.

Category Code: ERAb

2.4.4. EP: Codes in which the health provider refers explicitly to the cue/concern and provides space for further disclosure - (Orange)

When rating this group of responses, it is first important to identify what the provider has explicitly picked up in the cue. Is it the content (subject matter), is it the affect (emotion), or is it both?

When moving down the Inviting Explicit category, there is a ranking related to the affective elaboration of the provider response *Content Acknowledgment* (EPCAc) (1) being the minimal response in this category and Explicit Empathy (EPAEm) (5) being the one that contains at least the affect/emotion or both affect and content, and is the most elaborate response. This means that if emotion is present it always 'trumps' or takes precedent over comments which do not contain any reference to an emotion.

Thus:

- If the provider has only picked up the topic or content of the cue or concern, then use the *content* categories - EPCAc (1) and EPCEx (2).
- If the provider has picked up EITHER the affect or BOTH the affect and the content, then use the *affective* categories - EPAAc (3), EPAEx (4) and EPAEm (5).
    - If the provider defers the affect and picks up the content, use categories that EXPLICITLY REDUCE SPACE – ERSw, ERPp, ERIa ou ERAb.

CONTENT ACKNOWLEDGEMENT (EPCAc)

Definition: in *Content acknowledgement the h*ealth provider explicitly refers to the *factual content* or topic of the cue or concern by allowing *space for further disclosure without specifically seeking it and without referring explicitly to the emotional element*. For example phrases which check or affirm what has been said by echoing, reflecting back comments, simple paraphrasing, summarising, checking or concluding a sentence formulated by the patient. All these behaviours allow space for the patients to choose to take things further without explicitly asking for further or new information. This is done at the same time as focusing on the content not the emotion of the cue/concern.

Example

Pt: "I was in terrible pain"
HP: "You had pain"

Pt: "I felt so worried because of…"
HP: "the operation"

Category Code: EPCAc

CONTENT EXPLORATION (EPCEx)

Definition: in *Content exploration* the health provider engages in behaviour which refers to the *factual content* or topic of the cue or concern. It does not refer explicitly to the emotional element.
The health provider explicitly requests further information about the content or topic area of the cue or concern, actively seeking to gain more information. In this category are included closed and open questions, queries of clarification or exploration.

Example:

Pt: I am so worried about the operation that is scheduled for Friday.
HP: What operation are you having?

Pt: I am worried about the operation on Friday
HP: Do you need more information about the operation?

Comment: The factual component of the concern, the operation, is explicitly referred to, but the provider fails to acknowledge the affective component.

Category Code: EPCEx

AFFECTIVE ACKNOWLEDGEMENT (EPAAc)

Definition: in *affective acknowledgement* the health provider explicitly refers to the emotional aspect of the cue or concern in the response. The health provider response allows space for further disclosure but does not specifically seek it. For example checks or affirms what has been said by echoing, reflecting back comments, simple paraphrasing, summarising, checking or concluding with an explicit emotion the sentence formulated by the patient. All these behaviours allow space for the patients to choose to take things further but do not explicitly ask for further or new information.

NB: The affective component may include cognitive aspects which refer to the emotional aspect or are a clear acknowledgement of the causes of the emotion, perspective or attribution.

Example:

Pt: I am so worried about the operation that is scheduled for Friday.
HP: Worried (pause)

Pt: "The pain was so strong that I felt…"
HP: "upset"

Comment: The affective concern is explicitly referred to. The provider mirrors it, in this example by reflecting back / echoing the word used in the patient's expression of concern.

Category Code: EPAAc

AFFECTIVE EXPLORATION (EPAEx)

Definition: affective exploration is any health provider behaviour which explicitly picks up or refers to the *affective or emotional aspect* of the cue or concern. There must be evidence that the health provider is actively seeking more or new information about the cue or concern. In this category are included: health provider *closed and open questions or clarifications*, *paraphrases which link or add meaning, educated guesses expressed as questions.*

NB: the affective component may include cognitive aspects which refer to the emotional aspect or are a clear exploration of the causes of the emotion, perspective or attribution

Example:

Pt: I am so worried about the operation that is scheduled for Friday.
HP: What it is that worries you about the operation?

Comment: The affective concern is explicitly referred to, and the provider brings it further by asking the patient to specify. There is no legitimizing of the worry, no evaluation, no praise, no explicit support and no mention of a shared feeling.

Category Code: EPLAEx

EMPATHIC RESPONSE (EPAEm)

Definition: An *empathic response* is a health provider behaviour which empathises with the patient predicament. The provider legitimises or shares the patient's emotion, with or without reference to provider's own feelings. The emotion of the patient's cue or concern must be mentioned in the empathic response, which could also make reference to the content related to the emotion.

In this category are included health provider *statements of understanding, educated guesses, all coming after exploration of the affective part of the patient expression (the patient had had the opportunity to talk about the affective part of the cue or had clearly expressed a concern).*

If it is not then the rater should consider the non-explicit empathy rating (NPIm)

Example:

Pt: "I am so worried about the operation that is scheduled for Friday".

HP: "I imagine that this must be really hard for you, especially as you are so scared about this operation. It must be difficult waiting…

Comment: The affective concern is explicitly referred to, and the provider introduces his or her own perspective of how difficult things are for the patient and values and attempts to get along side the patient's distress.

Category Code: EPAEm

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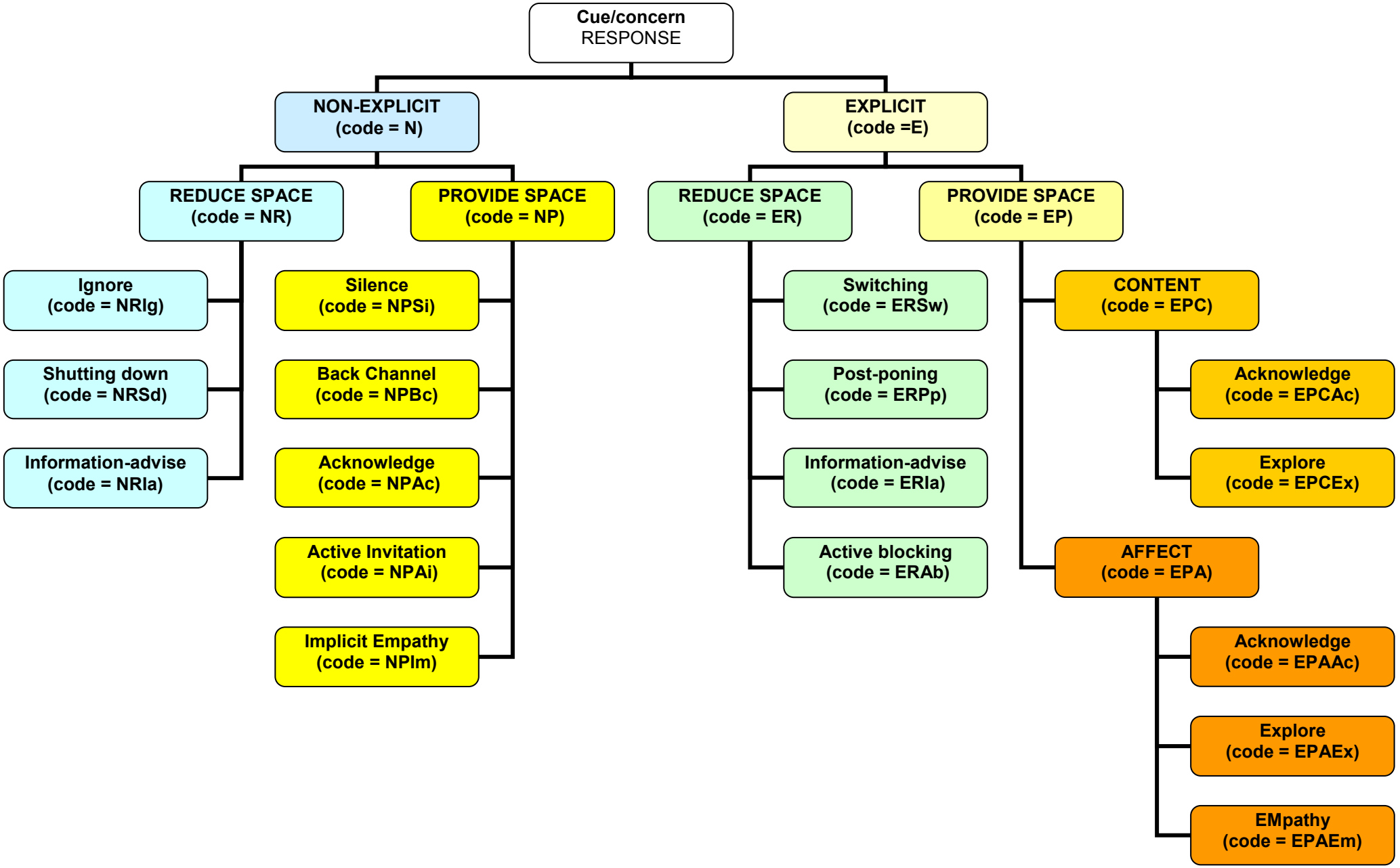
Appendix I Coding Provider Response



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RATIONALE FOR DIVIDING A CONSULTATION INTO UNITS OF ANALYSIS 2016 (2009 revised)

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on behalf of the

Verona Network on Sequence Analysis

1. Introduction

In a consultation we find a sequence of turns that alternatively correspond to health provider and patient talk. Within patient turns we can identify what we called cues and concerns. Within health provider talk we can identify the turns that, immediately or later, follow those of the patient where one or more cues/concerns are present.

1.1 Definition of the units of analysis.

By unit of analysis we consider any turn or part of turn said by the patient or by the health provider, which could be classified adopting the codes included in one of the two classification systems: "Consensus definition of cues and concerns expressed by patients in medical consultations" or "Coding of health provider talk related to cues and concerns".

1.2 Patient units of analysis.

When more than one cue/concern may be singled out in the same turn, we have to divide the turn into "*units of analysis"* (the different parts of a turn containing a cue/concern), whereas when there is only one cue/concern within the turn, *unit of analysis* and turn coincide. If there are both one or more cues and one or more concerns in the same patient turn and they refer to the same emotional content, they will be coded as one unit of analysis referring to the concern.

We may also have subsequent turns without cues/concerns. Each time we find a sequence of patient turns without cue/concern codes, we lump together all these turns into one single *unit of analysis* containing no cue/concern.

This decision is based on conceptual and statistical considerations:

- Conceptual:

1. We are interested in a phenomenon that may be observed not only once but also several times in the same turn (more than one cue/concern).
2. It is useless to repetitively code a sequence of turns as "no cue/concern", being the same information repeated and, by this way, emphasised in terms of quantitative importance (frequency).
3. We need to distinguish where a cue/concern is present and where it is not, to be able to exactly individuate which is the turn containing a cue/concern.
4. There are also reliability reasons. When comparing two or more raters, one could find a cue/concern where the other does not, so we have to consider the possibility to have a no cue/concern code.

- Statistical: To overestimate the presence of no cue/concern" category would distort reliability calculations. Here is an example of what could happen, adopting different counting procedures. The reported data are extracted from our database.

Given a sample of 20 transcripts, our two raters coded 3123 turns as “no cue/concern”. The number of cues/concerns identified were 258 (7.6% of all units), of these only 151 have been identified by both raters.

Rater 1	Rater 2: Nc	Cue	Concern	Total
Nc	3,123	49	8	3,180
Cue	36	91	4	131
Concern	9	1	60	70
Total	3,168	141	72	3,381

Agreement	Expected Agreement	Kappa	Std. Err.	Z	Prob>Z
96.84%	88.34%	0.7287	0.0139	52.57	0.0000

In this situation percentage agreement and kappa measure are in accord, and it seems that the two raters agree on most of the categories, in spite of a poor agreement on cue identification (in 49 and 36 cases respectively only one of the two raters identified a speech unit as a cue, whereas the other one did not classify the unit).

Some other extreme situations could happen:

a. <u>the coders did not agree on concern rating:</u>

Rater 1	Rater 2: Nc	Cue	Concern	Total
Nc	3,123	49	38	3,210
Cue	36	91	4	131
Concern	39	1	0	40
Total	3,198	141	42	3,381

Agreement	Expected Agreement	Kappa	Std. Err.	Z	Prob>Z
95.06%	89.98%	0.5071	0.0146	34.68	0.0000

<u>b. The coders did not agree on cues rating:</u>

Rater 1	Rater 2: Nc	Cue	Concern	Total
Nc	3,123	89	8	3,220
Cue	86	1	4	91
Concern	9	1	60	70
Total	3,218	91	72	3,381

Agreement	Expected Agreement	Kappa	Std. Err.	Z	Prob>Z
94.17%	90.76%	0.3692	0.0136	27.23	0.0000

c. I coders did not agree both on cues and concerns rating

Rater 1	Rater 2 Nc	Cue	Concern	Total
Nc	3,123	89	38	3,250
Cue	86	1	4	91
Concern	39	1	0	40
Total	3,248	91	42	3,381

Agreement	Expected Agreement	Kappa	Std. Err.	Z	Prob>Z
92.40%	92.43%	-0.0043	0.0141	-0.30	0.6198

In the three extreme cases presented above, the agreement remains high, whereas the kappa changes dramatically. Therefore one might ask which is the correct measure or how to explain this difference.

When applying to the first example the alternative solution of dividing the turn into *units of analysis,* as suggested above, the results become the following:

Rater 1	Rater 2 Nc	Cue	Concern	Total
Nc	259	49	8	316
cue	36	91	4	131
concern	9	1	60	70
Total	304	141	72	517

Agreement	Expected Agreement	Kappa	Std. Err.	Z	Prob>Z
79.30%	44.74%	0.6255	0.0333	18.79	0.0000

In this case Agreement and Kappa measures seem to concord more and to be more congruent with our aims and the data distribution.

Once coded patient cues/concerns, health provider responses might be considered.

1.3 Health Provider units of analysis

Any expression (verbal or non-verbal) of the health provider that follows any cue or concern has to be classified. Therefore **in the recording of health provider responses there should be at least *the same number of units of analysis as the number of the cues and concerns expressed by the patient in the previous turn***. This because each cue/concern has to be linked to at least one health provider response.

If there is one cue or concern followed by two or more different responses by the health provider, each response of the health provider has to be coded separately.

If there are two or more separate cues or concerns followed by two or more responses by the health provider, each cue or concern requires to be linked to the health provider response which best refers to the cue concern. If there are more than one non explicit responses, these have to be linked only to the last cue/concern

Example:
P: *"I don't know what to do with my son (cue)…. And I am so worried about the operation (concern)"*
HP: *"I can imagine…. Now, did you take your pills last night?".*
The first part is a non-explicit empathic statement, the second part ignores the reported cue/concern. The coding of the health provider response will be **NPIm for the cue** and **NPIm – NRIg for the concern.**

Example:
P: *"I don't know what to do with my son (cue)…. And I am so worried about the operation (concern)"*
HP: *"I can imagine the situation…. Now, did you take your pills last night?".*
The first part is a non-explicit empathic statement, the second part ignores the reported cue/concern. The coding of the health provider response will be **EPAEm for the cue** and **EPAEm – NRIg for the concern.**

Example:
P: *"I don't know what to do with my son (cue)…. And I am so worried about the operation (concern)"*
HP: *"I can imagine that the idea of being operated can frighten you… Now, did you take your pills last night?".*
The first part is an empathic statement explicitly referred to the concern, the second part ignores the reported cue/concern. The coding of the health provider response will be **NRIg for the cue** and **EPAEm – NRIg for the concern.**

Sometimes, when coding from video tapes or audiotapes, **a response that verbally gives space to further disclosure of the cue/concern may be accompanied by a nonverbal behaviour that contradicts the verbal response and functions to reduce space** (double communication). *Only when the non-verbal behaviour is clearly dismissing, the turn is classified adopting* **two codes***;* one related to the verbal behaviour the other to the non-verbal.

Example:
P: *"I am so worried about the operation (concern)"*
HP: *"It could happen to feel this… " (claerly said with a detached tone of voice and the gaze oriented away from the patient) .*
This will be classified as **NPIm – NRSd**.

In subsequent turns there may be **delayed responses** to the cue/concern. **These are added to the immediate response of the health provider** (see the following example from video b).

N.B.: ***When in doubt about using one or more codes****, if the codes are the same and are referred to the same cue/concern, only one code has to be adopted*. *Similarly,* ***if there is no clear distinction between two parts of the same health provider turn and the general meaning of the expression is univocal, only one code has to be adopted.***

Finally, when analysing data it is useful to maintain also the numbering in terms of turns sequence.

EXAMPLES

1. Division into units of analysis: an example from video a.

turn	Patient units of analysis	Doctor units of analysis	Student – scenario period pain	*cue/concern*	health provider talk
1		1	D: hello		
2	1		P: hi		
3		1	D: my name is *name* I'm a 4th year medical student and I've been asked by doctor to speak to you to see why you are coming today is that all right with you?		
4	1		P: ok		
5		1	D: ok I'm just gonna check this one how are you feeling today?		
6	1		P: I'm not too bad		
7		1	D: right can I just first check what's your surname please?		
8	1		P: *name*		
9		1	D: sorry		
10	1		P: *name*		
11		1	D: *name*		
12	1		P: *spelling name*		
13		1	D: *spelling name*		
14	1		P: *spelling name*		
15		1	D: sorry about that and your first name?		
16	1		P: *name*		
17		1	D: *name spelling 1st name* ok and can I just check what's your date of birth please?		
18	1		P: 06 08 64		
19		1	D: 06 of the 8th 1964 all right let me just write down the date today and also the time can I ask what brought you in today?		
20	2		P: *I've been having bad problems with my periods*	*Cue b, HPE*	
21		**2**	D: right		**Back Channel NPBc**
22	3		P: I've always been heavy but over the last two years I mean I'm experiencing a lot of pain with my periods which is come on over the last two years *I mean to the point that is now it's ridiculous I mean when I'm on the period I can't go to work*	*Cue d, HPE*	
23		**3**	D: right		**Back Channel NPBc**
24	4		P*: I'm having to take a lot of time off work because of it my boss has called me for meeting next week because of the amount of time I'm taking off*	*Cue d, HPE*	
25		**4**	D: all right		**Back Channel NPBc**
26	5		P: *and I'm a bit worried about what the outcome of the meeting is gonna be really*	*Concern, HPE*	
27		**5**	**D:** all right so just to write it down **you said you've had problems with periods and its heavy period that you got together with pain as well?**		**Ignore the concern NRIg**
28	6		P: yeah		
29		6	D: ok and this has been happening for 2 years do you say?		
30	6		P: yeah I mean I've always had heavy periods		
31		6	D: right		
32	6		P: but these have got increasingly more so over the last 2 years		
33		6	D: ok		
34	6		P: and the pain's been coming on gradually over the last 2 years as well		
35		6	D: 2 years as well yeah right worse in last since last 2 years		
36	6		P: yeah		
37		**7**	**D: ok right and that cause you to not be able to go to work take time off work as well?**		**<u>delayed</u> Content exploration of preceding cues EPCEx (cues 3 and 4)**
38	6		P: I often take time off yes		
39		8	D: Have you tried anything so any medications at all?		
40	6		P: I take paracetamol		
41		8	D: right		
42	6		P: and I've also been taking a tablet called Feminax as well		
43		8	D: right		

44	6		P: and using a hot water bottle		
45		8	D: hot water bottle Feminax and also some paracetamol		
46	6		P: yeah		
47		8	D: does it help to ease the pain at all?		
48	6		P: I would say it helps to ease it it just doesn't take it away but it certainly takes takes the edge off its bearable		
49		8	D. all right all right ok		
50	7		P: *but the problem I have with work is that I have such heavy periods I have to change so often*	*Cue d, HPE*	
51		**9**	D: right		**Back Channel NPBc**
52	8		P: that it's just not practical really		
53		9	D: ok can I just ask about you mentioned that you have to take time off work how often do you need to take time off work?		
54	8		P: whenever I'm on a period		
55		9	D: right		
56	8		P: I mean it all depends if it falls over a weekend then its only 3 days 3 or 4 days		
57		9	D: right		
58	8		P: if it's during the week I have to take the full week off		
59		9	D: right it's really difficult		
60	8		P: yeah		
61		9	D: yeah that's right can I just assess how much how severe the bleeding is can I ask how many pads do you use?		
62	8		P: mmm when I'm at my heaviest I'm having to change I use tampons on pads		
63		9	D: right		
64	8		P: and I have to change them every half an hour or so		
65		9	D: every half an hour		
66	8		P: yeah		
67		9	D: right		
68	8		P: and then it's sort of you know it gets less towards the end		
69		9	D: right so in the whole day how many pads do you notice do you use?		
70	8		P: oh I don't know		
71		9	D: no		
72	8		P: it could be a box 20 or something		
73		9	D: right and the clots that comes out with the bleeding?		
74	8		P: yeah		
75		9	D: any flooding like if you have		
76	8		P: if I don't change every		
77		9	D: yeah		
78	8		P: half an hour then I do flood yeah		
79		9	D: all right ok have you got this problem before has it been affecting you before mmm before these 2 years?		
80	8		P: well I've always I've always been heavy but not as heavy		
81		9	D: this is the heaviest		
82	8		P: as I am now		
83		9	D: all right		
84	9		P: I've never I mean I've had normal period pains like normal period cramps *but this is like 10 times worse*	*Cue b, HPE*	
85		**10**	**D:** ok right I've got the just of what's happening I'm just gonna ask a bit you about your menstrual history if it's alright with you **since what age do you start to having period?**		**Ignore the "worse" NRIg**
86	9		P: I was about 14		
87		10	D: about 14 years old and how regular is your cycle?		
88	9		P: I'm regular pretty much every 28 days		
89		10	D: every 28 days how many days do you bleed for?		
90	9		P: between 5 and 7 it's normally 5 days of being heavy and then 2 days of kind of just coming off really		
91		10	D: I'm just gonna ask you before I forget you mentioned about pain as well where when you get the period where do you get the pain?		
92	9		P: it's just all down here		
93		10	D: is it on the first day itself?		
94	9		P: sorry?		

95		10	D: is it during just the first day itself or		
96	9		P: no it starts about 3 or 4 days		
97		10	D: 3 or 4 days		
98	9		P: before the period starts		
99		10	D: right		
100	9		P: and then it lasts for the whole time		
101		10	D: ok alright I'm just gonna ask a bit about pregnancy history have you been have you had any children at all?		
102	9		P: no I don't have any children myself		
103		10	D: pregnant before?		
104	9		P: I've never been pregnant no		
105		10	D: any medical problems at all do have you got any medical problems?		
106	9		P: have I got any medical problems?		
107		10	D: yes		
108	9		P: I was diagnosed with IBS irritable bowel syndrome		
109		10	D: yes		
110	9		P: about a year ago		
111		10	D: right about a year ago right any other things other than that?		
112	9		P: no		
113		10	D: so right ok any family history of any problems that you can think of?		
114	9		P: not as far as I'm aware do you mean related to		
115		10	D: related to period problems		
116	9		P: not as far as I know could be but not has been spoken about		
117		10	D: how about others problems like heart problems lung problems?		
118	9		P: my granddad had a stroke		
119		10	D: right		
120	9		P: that's about it really		
121		10	D: ok nothing that you can think of?		
122	9		P: no		
123		10	D: are you on any regular medications at all?		
124	9		P: I take Colpermin for the IBS and just the paracetamol and the Feminax for when I am on the period		
125		10	D: ok Colpermin and some regular paracetamol ok do you smoke or drink at all can I ask?		
126	9		P: I don't smoke and I have a few glasses of wine at the weekends		
127		10	D: right ok and can I also ask have you had any cervical smear done recently?		
128	9		P: about a year ago		
129		10	D: about a year was it normal?		
130	9		P: yeah		
131		10	D: and when was the last menstrual period can I ask as well?		
132	9		P: about 2 weeks ago		
133		10	D: 2 weeks ago last menstrual 2 weeks ago ok right I've got everything done what I'm gonna do is I'm gonna present this to the doctor and see what we can do for you meanwhile can I ask you other then this particular problem do you have any problems that concerns you at all?		
134	*10*		*P: I'm just concerned about the amount of work that I'm having to take off because*	*Concern HPE*	
135		**11**	D: yeah		**Back Channel NPBc**
136	11		P: the chances are that *I might lose my job through this*	*Cue d, HPE*	
137		**12**	D: right		**Back Channel NPBc**
138	12		P: so really I just wanna *I just don't think its normal the amount of pain that I'm having* just and it's really painful when I do have it I just wanna try get to the bottom of it really	*Cue b, HPE*	
139		**13**	**D: right ok so what I'm gonna do is I'm gonna I'm gonna talk to the doctor to see what we can do for you possibly just to do some take some blood to do some investigations and also to give you some medications to solve the problems to start with.** Do you think that's helpful at all?		**Switching to other person ERSw**
140	13		P: yeah whatever		
141		14	D: yeah do you have any concerns or any questions that you want to ask me?		
142	13		P: no		
143		14	D: no thank you very much *name* right you've been		

			help do you think do you have any other questions or you want to tell me before I leave?		
144	13		P: no		
145		14	D: no ok meanwhile I'm gonna just get something a leaflet or some information for you to let you have a look about this problems with period which is quite common		
146	13		P: ok		
147		14	D: so possibly if you have any questions you can always come back and give us a call at the surgery if it's all right with you?		
148	13		P: well hopefully I'm going to see the doctor now aren't I?		
149		14	D: yeah I'm just gonna bring my history and present it to doctor		
150	13		P: all right ok		
151		14	D: he is gonna come after this is it ok?		
152	13		P: yeah that's fine		
153		14	D: ok thank you very much		

2. Division into units of analysis: an example from video b.

turn	Patient units of analysis	Doctor units of analysis	Student – scenario period pain	*cue/ concern*	health provider talk
1		1	D: hi good morning my name is *name* I'm one of the 4th year medical student here today mmm would it be ok if I just spoke to you for a little while about why you've come in?		
2	1		P: yeah of course		
3		1	D: just try and get everything sorted and done first could I have your name please?		
4	1		P: yes *Jane Smith*		
5		1	D: *jane smith* and what's your date of birth *jane*?		
6	1		P: 21st of the 7th 75		
7		1	D: 75		
8	1		P: yeah		
9		1	D: ok can you just check that's right because my spellings atrocious		
10	1		P: yes		
11		1	D: at the best of times ok it's ok now that's all done what's brought you into hos into doctor's today?		
12	1		P: mmm I just really need to see a GP		
13		1	D: ok		
14	2		P: mmm I've had a few problems with my period *just seems to be now at a point where I don't really think that I can go on with it for much longer* mmm I just need to know that I'm gonna go home today with some sort of solution really	*Cue b, HPE*	
15		**2**	**D: yes some sort of plans mmm you're finding it getting on top of you a little bit**		**Affect Acnowlege EPAAc**
16	3		P: yeah very much	*Cue a, HPE*	
17		**3**	D: **ok, when you say you've had problems with your periods could you tell me a little bit more about them?**		**Content explore EPCEx**
18	4		P: mmm I've…ever since I've had starting my period I've always had really heavy		
19		4	D: mmm ok		
20	5		P: periods mmm *and they've kind of always interfered with everything* but I've been able to manage and *and now it just kind of recently it just seems like everyone's getting fed up you know like works having a go at me my partner's not happy I'm not happy so it's just it's just not very good really*	*Cue d, HPE*	
21		**5**	D: ok **when you say works having a go is that because you are having to take time off or?**		**Content explore EPCEx**
22	6		P: yeah mm I'm taking *well I've been taking time off and then when I have gone into work because I'm not sleeping I'm doing everything wrong arguing with everyone*	*Cue d, HPE*	
23		**6**	**D: ok we'll try to get this it sorted out as quick as possible for you**		**Advise/reassurance ERIa**
24	7		P: hope so		
25		**7**	D: put your life back on track mmm **you said your partner was getting a bit fed up with it what's gone on there?**		**delayed Content explore (cue in 5) EPCEx**
26	8		P: well I've been with him for few years and he's been great and I always been like this but now it just kind of when we have sex it hurts so consequently I don't wanna be doing it mmm kind of even kind of just *when we just go to socialise because I'm feeling rubbish I'm not really wanting to go out and if I'm on my period and I'm really heavy* I can't go to the theatre because I'm uncomfortable how to change it's just everything really	*Cue b, HPE*	
27		**8**	**D: ok mmm what I'd like to do is go in through your menstrual history**		**Ignore NRIg**
28	9		P: all right		
29		9	D: a little bit is it ok with you? mmm so just to start with you said they have always been heavy		
30	9		P: yeah		
31		9	D: when did you start having period originally?		
32	9		P: I was probably about 14		
33		9	D: and were they were heavy then as well?		
34	9		P: yeah not necessarily as heavy as now but they were they were heavy		
35		9	D: ok are they regular your periods?		
36	9		P: yeah kind of within reason give or take a little bit but yeah		
37		9	D: ok so mmm if you had to put a figure on it how many days would you would you say you bleed for?		
38	9		P: I probably bleed for about 5 to 6 days		

39		9	D: ok		
40	9		P: and then I'm probably off for about 16 16 days 18 days		
41		9	D: ok so sort of between one day of bleeding on the first cycle how long is it until you bleed again on the next one?		
42	9		P: mmm about 23 days		
43		9	D: about 23 ok and you say they're regular ok?		
44	9		P: yeah		
45		9	D: so when when was your last menstrual period?		
46	9		P: I was I came off 4 days ago		
47		9	D: ok and was that normal for you or was that?		
48	9		P: no it was about right		
49		9	D: ok ok mmm how many pads are you using at the moment?		
50	9		P: mmm when I'm on when I it is really heavy I have to change a tampon about every half an hour when it's heavy		
51		9	D: ok mmm are you flooding at all?		
52	10		P: *Occasionally but now because I've kind of I've got used to it and possibly a little bit paranoid I'm double checking all the time*	*Cue b, PE (paranoid)*	
53		**10**	**D: ok and do you pass any clots?**		**Ignore NRIg**
54	11		P: yeah		
55		11	D: mmm how would you describe them?		
56	11		P: mmm kind of just kind of thick kind of		
57		11	D: would you say they're sort of 10 pence 50 pence pieces or?		
58	11		P: they kind of mmm it fluctuates sometimes small sometimes slightly larger kinda like a 10 pence piece I guess		
59		11	D: do you bleed any point in between your periods or?		
60	11		P: only kind of recently when I bleed when I've had sex with my partner		
61		11	D: ok		
62	12		P: its' it's just *become incredibly painful now*	*Cue b, HPE*	
63		**12**	D: ok **I know that must be distressing for you** so again we'll try to get things sorted out as quick as we can mmm ok so you say you don't you don't' really bleed in between your periods unless it's after just having sex with your partner		**Affect Empathy EPAEm**
64	13		P: yes		
65		13	D: ok are your periods painful at all?		
66	14		P: *incredibly*	*Cue b, HPE*	
67		**14**	**D: incredibly painful**		**Affect Acknowledge EPAAc**
68	15		P: yeah awful		
69		15	D: how how do you manage to cope with that?		
70	16		P: mmm *I don't really think I am I think this is why everyone's get getting at me* I've tried drinking hot water and I've tried kind of putting kind of a hot water bottle on the stomach which helps a little bit but nothing at all really	*Cue a, HPE*	
71		**16**	D: mmm when you say you have pain is it sort of a deep pain in the centre of the stomach or is it just		**Ignore NRIg**
72	17		P: mmm when I'm having sex it's kind of like a deep pain and the rest it's just kind of all around constant		
73		17	D: all around constant ok mmm have you had any pregnancies before?		
74	17		P: no		
75		17	D: and are you on any contraception at the moment?		
76	17		P: we're just using condoms		
77		17	D: have you tried any other forms of contraception in the past?		
78	18		P: no mmm to be honest *I've always been a little bit uncomfortable coming to talk about I don't know why I just am really*	*Concern HPE*	
79		**18**	**D: well I know it might its always uncomfortable talking to people about your sex life and very personal issues but we are always here to talk to**		**Affect Empathy EPAEm**
80	19		P: ok		
81		19	D: we've got to keep what's said between us private so		
82	19		P: ok		
83		19	D: ok mmm have you got any other medical problems at the moment?		
84	19		P: yeah mmm about 12 months ago I was diagnosed with mmm irritable bowel		
85		19	D: bowel syndrome		
86	19		P: mmm but kind of since I've been on medication it seems to be getting a bit better		
87		19	D: is there anything else you see your GP for at all?		

88	19		P: not had anything		
89		19	D: ok have you been into hospital at all for anything any procedures or?		
90	19		P: no		
91		19	D: ok you said you are on medications for the irritable bowel do you know what medication that is?		
92	19		P: I'm not really sure what the name is but I think my GP might know		
93		19	D: ok we will check upon that ok and do you have any allergies at all?		
94	19		P: no		
95		19	D: ok what I'd like to do as well is just ask you a little bit about your social history		
96	19		P: right		
97		19	D: and your family history do you smoke at all?		
98	19		P: no I don't		
99		19	D: have you ever smoked?		
100	19		P: no I have tried it when I was younger but no		
101		19	D: ok do you like do you take a drink at all?		
102	19		P: yeah but just kind of just a little bit not		
103		19	D: a little bit ok mmm who lives at home with you at the moment?		
104	19		P: my partner and his children come to visit at weekends		
105		19	D: ok so he's got children already?		
106	19		P: he's got two		
107		19	D: ok and they just come at weekends?		
108	19		P: yeah		
109		19	D: ok so it's just you two in the house?		
110	19		P: yeah		
111		19	D: ok are you married or?		
112	19		P: no we're not		
113		19	D: and do you have any pets at all?		
114	19		P: no		
115		19	D: you said you work but what you work at?		
116	19		P: mmm a receptionist		
117		19	D: and just finally do you have any diseases that run through your family that you know of?		
118	19		P: no but my dad had a stroke when he was 69 but that was it nothing else		
119		19	D: ok ok oh just finally something I've forgotten do you have any discharge at all?		
120	19		P: no		
121		20	D: ok well thank you for talking to me it was nice to meet you		
122	19		P: thank you		