# Title: Teaching medical students to express empathy by exploring patient emotions and experiences in standardized medical encounters

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#### **Abstract**

OBJECTIVES: To increase medical students' ability to detect contextual and emotional cues and to respond empathetically to patients.

METHODS: a training course in communication skills and patient-centered care with different teaching activities (didactic, reflective and interactive: workshops and encounters with simulated patients) was delivered to third-year medical students just before their clerckships. The program was evaluated by an external observer (OE) and simulated patients (SP) in 2 or 3 videotaped encounters.

RESULTS: Students improved significantly from baseline to 3rd interview in all communicative skills and domains explored both in OE (32.4%) and SP (38.3%) measurement. At the end of the course students detected significantly more clues and made more empathetic expressions.

CONCLUSIONS: The course seems to improve the ability of students to explore the illness experience, showing more empathy in a more genuine way. This was carried out in consultations lasting 10 minutes.

PRACTICAL IMPLICATIONS: The program is effective and feasible to be applied as a regular formative activity. Further research is needed to assess whether this training program is applicable to students in more advanced educational levels and if it has any additional outcomes.

**Key words:** physician doctor relationships, communication skills, educational training, medical students, empathy, illness experience

## **Highlights**

- As result of the course, students identify a greater number of affective and contextual patients cues
- A deeper exploration of patients' illness experience seems to bring the students to express more empathetic statements
- These "Empathetic statements" are perceived by standardized patients as more genuine
- To teach the "empathic process" sequentially seems to be feasible and understandable for students

#### 1. Introduction

When patients attend a medical consultation, generally they are conveying to the physician their particular experiences regarding the perceived symptoms. Patients interpret these somatic sensations depending on many different factors including their unique personal and contextual circumstances, generating their own ideas and concerns (emotions) that their illness experience has caused, thereby giving rise to the consultation [1-3]. Generally, patients expect and value that their doctors attend these personal aspects of their experience [4, 5]. Physician attitudes and skills such as genuine interest, respect, reflective listening and empathy allow this task to be effectively carried out [6], which has been associated not only with a better physician-patient relationship but with improvements in clinical outcomes [7-13].

However, patients do not always overtly express these experiences, feelings, concerns and ideas, but they often communicate them indirectly through more or less subtle nonverbal or verbal "clues" tha which nevertheless contain interesting clinical information that can be defined as "clinical or contextual clues" [14-16] and, insofar as they represent a direct way to understanding the patient's experience, as "empathic opportunities" [17]. Some bodily expressions or sudden body or voice changes, anecdotal comments, questions or indirect expressions (speech clues), personal stories, or expressing reluctance to accept diagnostic or treatment proposals [18], represent good examples of these cues. Several studies have addressed the extent to which these expressions are exposed by patients [17, 19-21], expressions that represent a challenge for those doctors who often overlook them, as clinical information and opportunities to know the patient's world are lost [19-22], therefore limiting their understanding and thus failing to convey a more genuine empathic behavior.

Empathy is one of the key elements of the communicative process and has been identified as the "core of caring". It is considered a multidimensional concept, a skill with affective, cognitive and behavioral elements [23-25] which can be taught [26, 27]. A cognitive-behavioral approach of empathy requires the learner not only to identify feelings but to understand them. This approach is especially useful for teaching because it seems to be more easily systematized and applicable in specific teaching strategies [28, 29]. The affective and intuitive components of empathy are much more elusive [30-33]. However, both approaches should be considered to develop this behavior genuinely.

Given these premises, we designed a teaching program for medical students in their first year of clinical interaction with patients and just before their clerkships, with the following main objectives: 1) to increase their ability to detect and explore relevant patients' "contextual and emotional clues" in a medical consultation and 2) depending on the clue, to increase their ability to respond empathetically. To achieve these objectives, the essential element of the theoretical teaching of the program was the communication process linking the patient's experience with the empathic recognition of the feeling produced by this experience. The program was based on training with cognitive behavioral and intuitive components

## 2. Material y Methods

## 2.1. Course: Structure and Teaching Activities

The course is part of the mandatory training in patient-physician communication for 3<sup>rd</sup>-year medical students. During six weeks students are deeply involved with patients in clinical encounters in hospital and primary care. They receive basic, specific training in communication skills for developing a "person-centered interview". This course has two modules. The overall objective of the first module was to train students in the use of communication skills to obtain relevant clinical information and to establish a proper doctor-patient relationship. The objectives of the second part of the course focus on giving information and shared decisions. Course components

The course involves the following activities:

- 1. Demonstrative and small group work sessions (3). Addressing the interview structure and the communication skills to establish relationships and obtain information. Students worked in small groups on situations depicted in videos and clinical cases. These sessions involved individual reflection and plenaries with a discussion and provision of evidence and rationality of strategies proposed.
- 2. Illness Experience: All students contributed with their own experiences of illness described in a prescribed format.
- 3. Workshops with simulated patients: Some students interviewed a simulated patient (SP) while the rest observed and evaluated the interactions in terms of objectives and skills. After each encounter the student received feedback from peers, SP and the facilitator.

- 4. Group Practice and reports: the students were organized into four groups to interview, observe and provide feedback to each other. In these encounters the students roleplayed their own experiences of illness. The main aspects of this experience were collected in a notebook for each student with information on skills developed in the encounter and relevant aspects of interest.
- 5. Interviews with SP: All students held two videotaped encounters with SP and only those who did not reach a predetermined level had a 3rd interview. After each interview every student, using an evaluation form, made a quantitative (1 Deficient, 5 Excellent) self-evaluation of their interview skills and included at least two comments. Subsequently, each student received individualized feedback from the faculty using the same quali-quantitative methodology. This was performed in the Simulation Center equipped with an integrated video recording system that allows the online recovery of the videos and assessment (by ad hoc scales for student self-evaluation, faculty and SP evaluation and inserting annotations on a single screen) (Learning Space, Hungary)

The students had 10 minutes to conduct each interview with a different consultation problem. The SP belonged to the SP-UFV-Program, and had been trained to roleplay and to provide feedback [34]. Clinical situations were first visits in a primary care clinic for: a 42-year-old man with fever, a 35-year-old man with abdominal discomfort and a 40-year-old woman who felt burning when urinating. The scripts were developed following specific information on how the SP must provide the information describing distinction between "mandatory" and "tracking" clues. The former should be exposed by the SP at some point in the interview. Tracking clues were only exposed if the interviewer inquired (verbally and/or nonverbally) clearly enough, showing interest in finding out more. The number of mandatory clues for consultation was between 3 and 4. The number of tracking clues linked to a mandatory clue was between 2 and 4, revealing different specific personal or contextual information. Box 1 shows an example of the clues displayed.

The study evaluated the students' progress throughout the three individualized interviews for the following purposes: identifying patient perspectives (ideas, fears, concerns and experiences), showing empathy and support, and also the use of communication skills: nonverbal language, grasping and following clues,

facilitations and use of open-ended questions. Those students that in the first two interviews accomplished a predetermined level did not carry out the 3rd interview.

## 2.2. Teaching Metodology

The main objectives of the course were the student to acquire not only medical information but also the patient's contextual information and to consider patient perspectives of the problem (ideas, expectations, fears, concerns and specific related experiences) which are necessary to better understand patients' emotions and showing a more genuine empathic behaviour. The communicative-teaching process, the key aspect of the intervention, is, on the one hand, to link the patient experience with feelings raised by this experience and, on the other, the interviewer giving an appropriate empathic response to a detected feeling and understanding it after exploring its source. This process is outlined in box 2. Box 3 illustrates this process with dialogues between students and simulated patients in three different situations. For students developing these steps, two teaching strategies were employed: Students were trained in the use of non-verbal and verbal language for facilitating patient expressions, and to grasp and explore "context clues". Moreover, when the student went into this exploration, a focus on the communicative process was also emphasized. The message here was that communication skills alone aren't enough to succeed in this process, but that the "person-interviewer" also needs to assume an "attitude" trying to understand the particular experience of the "person-patient" (a person understanding another person). To promote a reflexive presence (mindfulness) [35] that would avoid the "dual thinking" (not to think about the next skill to apply) and to focus on the "here and now" of the relationship [36], the following strategies were incorporated into all educational activities [37]: "priming" (students reporting their own mind process), "reflective questions" (to open up possibilities and invite curiosity), "modelling while thinking out loud" (to mentally make the process more transparent: the student asks her/himself, "what am I doing and for what purpose at this time?"). Moreover, the design of the teaching activities was based on "availability" (creating a quiet, uninterrupted space on a regular basis for rehearsal, direct observation, exchange and self-correction, repeated practice, and "practice" (repetition in controlled settings and evaluation: peer and selfassessment of the student's own performance).

#### 2.3. Measurements

The course was evaluated measuring the following: an external observer (EO) scored all students' videotaped interviews (2 or 3) using a scale of two tasks (the exploration of ideas and experiences and empathy) and four skills (non-verbal language, capturing clues using open-ended questions and facilitations). Each item was rated from 1 (poor) to 5 (excellent). After the encounter, each SP immediately scored three aspects: interest and perceived support, feeling of being able to speak and opportunity given to express points of view and concerns. These three domains were also rated from 1 (poor) to 5 (excellent). The SP also offered his overall impression of the interview in three levels (0: poor, 1: average and 2: good)

EO reliability was calculated using a test-retest test in 30 interviews with 3 weeks' interval and applying the inter-class correlation coefficient (ICC). Concurrent validity between the EO and the SP was assessed using correlation in the skills and domains scores of each one of the raters and changes in the level of scoring of both kinds of raters.

## 3. Results

#### 3.1. Main Results

The number of students enrolled in the course was 115. Most of them, 84 (73%) were women. All students carried out the first interview and 113 roleplayed the second. After this second interview it was considered that 46 students had achieved the objectives, so finally the third interview was performed by 67 students. Table 1 shows the students' results in the three encounters for each skill scored by EO. Progressive improvements were observed in all communication skills. For the domain "Relationship" (items 1, 2, 3) the overall improvements from 1st to 3rd encounter were 3.63 points, 36% (p <0.001), scoring 6.4 (first visit), 7.9 (2nd visit) and 10 (3rd visit). For the domain "Getting information" (items 4, 5, 6) the increased score from first to third encounter was 3.1 points, 31% (p <0.001), here the visit scores were 7.6 (first visit), 8.6 (2nd visit) and 10.7 (3rd visit). Overall improvement in communication skills was 6.73 points (32.4%) from baseline to last interview (14.03, 1st encounter, 16.5, 2d encounter; 20.76 3rd encounter) (p <0.001) (maximum possible score: 30).

Table 2 shows the average scores returned by the SP for each communicative domain in their own evaluative scale for the three interviews. Progressive improvements in SP perception for the three communicative domains explored can be observed, especially regarding more opportunity and ease for the patients to express their points of view increasing 1.65 (41.6%) points from the 1st to 3rd visit. Overall perception of the SP improved 4.4 points (38.3%) over the three interviews: 7.16 (first visit), 9.52 (2nd visit), and 11.6 (3rd visit) (p <0.001) (maximum possible score: 15)

## 3.2. Reliability and validity

External rater reliability for each skill and domain was analyzed in 30 interviews with a test-retest test and using the inter-class correlation coefficient (ICC), with the following results: "Non-verbal language (eye contact, verbal reactivity,...)", 0.401; "Discovering Ideas (points of view) fears and experiences", 0.831; "Empathy and support", 0.654; "Balanced, open-ended and closed questions", 0.697; "Discourse facilitation", 0.675; "Grasping and following Clues", 0.777. Total score of 30 interviews studied in the test-retest had an ICC of 0.896 (95% CI: 0.794 to 0.949).

Table 3 shows correlations (Spearman correlation coefficients) among some between skills and domains assessed by the SP and EO.

Interviews with "poor" SP encounter perceptions, obtained EO scores of 30.28 points (Cl<sup>95%</sup> 24-36.4). These scores were 36.68 (Cl<sup>95%</sup> 33.1-40.1) and 42.52 (Cl<sup>95%</sup> 39.7-45.3) points for "average" and "good" SP perceptions (p: 0.002). Finally, there were no statistically significant differences between the mean scores obtained by the OE for each of the three PE in any of the three visits, reflecting homogeneity in the clinical situation and SP performance.

#### 4. Discussion and conclusions

#### 4.1. Discussion

Humanistic attitudes such as empathy decline as students progress through the curriculum of medicine from preclinical to clinical level [38] and especially in the third year [39]. The training program offered here just at this crucial time helps the students to express more empathetic manifestations to the patients, obtaining more clues and carrying out a deeper exploration of patients' beliefs, fears and

expectations. Students develop a better understanding of the specific experiences that these ideas and concerns give rise to, many of which often represent the real reasons for the consultation. The students' progression is shown in the results of the assessment of behaviors by an external observer and the perception that the simulated patients have had of these components of the relationship in the interview with the student.

The teaching scheme of sequential steps used in the program is based on the idea that "empathic engagement" (identification with feelings) [40] can occur when the doctor understands patients' concerns and feelings, understanding the events that originate them. Therefore, this teaching strategy seems to be valid to reinforce this skill with students on standardized scenarios. Benbassat and Baumal [41] have also suggested that to promote empathy in students during their clerckships, they should strive to increase their ability to explore both the feelings and concerns of patients and their sources of distress in depth. However, from the outset, one of the most important problems physicians face in the development of this process is the difficulty in capturing the clues that patients offer and failing to encourage them to expose details about these feelings [19]. This study, like the one of Thompson et al [16], shows that this ability can be taught. In addition, it is emphasized here the value of this task as a preliminary step for students to show greater empathic engagement. The course tried to offer an approach not exclusively based on promoting skills, but incorporating some attitudinal elements that emphasized the value of "being in relation." The extent to which this teaching approach could influence the results is difficult to know, but the perception that the SP had might also reflect this focus.

Although implementing a "patient-centered" interview as a whole offers different opportunities to obtain patient concerns and to express empathy (i.e., encouraging patients to asks questions, ensure privacy, expressing sustained respect and interest, structuring phases of the interview properly, performing a complete history taking,...), the skills taught and analyzed here represent the core skills to achieve these objectives in an interview with this focus. The overall impression of the faculties who participated in the training and who observed the encounters and provided feedback to the students was that most of them showed these skills in a progressive manner, as the results demonstrated. A key element of this learning process was the increase in detecting and following clues. These

were verbal and non-verbal clues, or a mixture of both and could express only a feeling (purely affective clues) or include more contextual and complex information (beliefs or fears associated with specific stressors). Usually, the *chief complaint* became a contextual clue when the simulated patient repeated it spontaneously or when the student openly asked for their beliefs or specific concerns (see example), then the student should advance (step 2) to get understand the patient's statement of a particular concern (*patient's concern*) better. While in early interviews the students often took the chief complaint as a patient's concern at a more advanced stage of the course, they shaped better the latter distinguishing it from the complaint.

Later the students examined the patient experience that originated the concern and finally when they had this information they conveyed their "emotional solidarity" in a more genuine manner, as often they engaged in a meaningful dialogue concerning the patient's experiences. Regarding how this transmission of empathy evolved, while at the beginning of the course students, either through a clue or asking openly, could get to know the patient's specific fear or idea, at this level there were still few that showed interest or explored the patient experience and there ensued a less empathetic statement. On many occasions, especially in the first interview, students used expressions that could be considered as empathetic after making a short exploration of the emotion or clue. Here we show a typical example of this: (1) "S: And there is something that worries you about this pain?; P: it is what I said to you, I do not want it to get worse and worse; S: I see you ... do not worry about it, I'll take a look. " This student expression may be considered empathetic itself, as any student can understand the fear of a patient that his increasing pain, but it can be compared with the following, more common in the last encounter: (2) "S: And is there something worrying you about this pain?; P: it is what I said to you, I do not want it to get worse and worse; S: What do you mean by "be worse and worse"? P: Well I do not want my nerves affected S: You mean it is sciatica? P: Yes exactly; S: And why do you think so?; P: Well, my sister had one when she was pregnant and she suffered a lot; S: Ahh, I understand you, so you think you can have the same problem as your sister; P: Well, the same thing, yes! "In the first dialogue it is more likely that the patient interprets the student's expression as an automated statement and not as a truly empathetic expression as it is a quick

response where the real causes that generate the patient mood have not been revealed. However, in the second dialogue the student makes an effort to clarify the source of distress, which turns out to be the experience of the patient with her sister, which at first she was reluctant to reveal spontaneously, as is common in many situations.

This study has some limitations that should be highlighted. It does not explore in a systematic way the views of students regarding the impact that different teaching activities have; this would have been of interest to determine the usefulness of each one. However, in an informal way (through an open survey) workshops with simulated patients and self-evaluated and individual videotaped feedback encounters were highly valued

Students had an average age of 22 years; their lack of professional experience but perhaps also "vital experiences" can make it harder for them to interpret these verbal or non-verbal affective cues of patients, especially if they have different cultural backgrounds. Similarly, performing a genuine "empathetic engagement" can also depend on the student's personality traits

To develop this approach the student must train in "setting aside", at least momentarily, his or her need to perform other required history taking tasks for this encounter, in addition to other specific communication skills (i.e., to do summaries, to close the interview in a correct way,...). This could affect the depth of the clues inquiry and the ability to perform more authentic empathetic statements. However, performing an interview in this way increased the realism of the encounter. An observation here is that students who scored higher on detecting and following clues and who consequently showed more empathy statements, left more sections of the medical history unexplored. These students prioritized the patient's agenda over the doctor's one.

Students declared on many occasions that they felt uncomfortable when exploring patients' emotions and experiences. In the tutorials and discussion groups, students frequently catalogued this exploration as "improper curiosity about the private life of the patient", "I can hardly also get involved in their private affairs", "sometimes I think I look nosy", "this is not natural in a doctor". These feelings have also been reported by other authors [41, 42]. It was required to ensure that their reluctance to explore the concerns and feelings of patients is normal and that the acquisition of an understanding of these concerns is a field

of legitimate and essential research for building a truly therapeutic doctor-patient relationship and for it to help us be more effective as clinicians [29].

Although the results suggest that the intervention was effective for the objectives proposed, the study design, not blinded and without a control group, does not allow us to establish causal relationships or to rule out other influences in these results. Moreover, the level of these students allowed work with more emphasis placed on communication skills than on other consultation tasks (clinical reasoning), which limits the extrapolation of these results to other students at higher academic levels or interviews of more complexity or interviews with actual patients.

#### 4.2. Conclusions

A communication training program for third-year students developed in multifaceted educational approaches and based both on teaching behavioral skills and on some attitudinal elements to foster "being in relation", seems to be effective for students to identify a greater number of affective and contextual cues, making a deeper exploration of patients' illness experience, and eventually bringing them to express more empathetic statements. The study suggests that the "empathic process" is sequential and to teach in such a way seems to be more feasible and understandable for students, while the SP perceive it as more genuine.

#### 4.3. Practice Implications

The course design seems to increase effective communication skills and relationships with patients in third-year students in simulated learning environments. Its implementation is feasible for our usual training context. Further research is needed to assess whether these results are applicable to students in more advanced educational levels, in actual settings and if it has influence in additional outcomes.

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	Skill	Intervie w #	N	Mean	Dif. 1-3	CI <sup>95%</sup> lower	CI <sup>95%</sup> upper	Kruskal- Wallis; p	ICC*
1.	Non-verbal language (eye contact, verbal reactivity,)	1	107	2,87		2,75	2,98		
(		2	113	3,06	0,56	2,93	3,19	<0,001	0,401
		3	67	3,43		3,30	3,57		
2.	Discovering Ideas (points of view) fears and experiences	1	112	2,42		2,21	2,62		
		2	113	3,04	1,62	2,77	3,32	<0,001	0,831
		3	67	4,04		3,84	4,25		
3.	Empathy and support	1	115	1,13		1,05	1,21		
		2	113	1,81	1,44	1,63	2,00	<0,001	0,654
		3	67	2,57		2,32	2,81		
4.	Balanced open-ended and	1	115	2,56		2,41	2,71		
	closed questions	2	113	2,88	0,92	2,73	3,04	<0,001	0,697
		3	67	3,48		3,30	3,65		
5.	Discourse facilitation	1	115	2,83		2,71	2,96		
		2	113	2,86	0,62	2,70	3,01	<0,001	0,675
		3	67	3,45		3,29	3,60		
6.	Grasping and following Clues	1	115	2,22		2,03	2,41		
		2	113	2,86	1,57	2,60	3,11	<0,001	0,777
		3	67	3,79		3,58	4,01		

<sup>(\*)</sup> ICC: Item Intraclass Correlation Coefficient (n:30)

Table 2. Mean values of every SP scores (CI $^{95\%}$ ) for each communicative domain and interview

	Communicative Domain	Interview #	N	Mean	Dif.1-3	CI <sup>95%</sup> lower	CI <sup>95%</sup> upper	Kruskal- Wallis; p
1.	I felt the student was interested in me as a person, I felt supported	1	95	2,59		2,36	2,82	
		2	113	3,24	1,2	3,02	3,46	<0,001
		3	67	3,79		3,56	4,02	
2.	I felt it easy to speak and explain	1	95	2,26		2,05	2,48	
		2	113	3,16	1,58	2,94	3,38	<0,001
		3	67	3,84		3,62	4,05	
3.	I expressed my points of view	1	95	2,31		2,07	2,54	
		2	113	3,12	1,65	2,88	3,37	<0,001
		3	67	3,96		3,73	4,18	

Tabla 3: Correlations among skills and domains assessed by EO and SP (Spearman  $\bf r$ )

	Non verbal	Discover ideas	Empathy & support	Relation	Openended questions	Facilitations	Grasp Clues
I felt the student was interested in me as a person, I felt supported	0.311	0.550*	0,568*	0,582*	0.41*	0.371*	0.512
I felt it easy to speak and explain	0.380	0,602*	0.378*	0.426*	0,532*	0,522*	0,570
I expressed my points of view	0.398	0,671*	0.512*	0.445*	0,584*	0,567*	0,636

<sup>(\*)</sup> p<0,001.

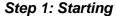
## **Mandatory clue:**

# 1) I'd like you to take a look at me in depth. I guess I would have to undergo some kind of tests.

# Tracking clues:

- # 1 A) ...tests to check if there is any other infection,... I mean not only an infection of the "pipe urine".
- # 1 B) ... Well I do not know; maybe in the kidney or even the vagina
- # 1 C) ... Maybe something that someone could have infected me with
- # 1 D) ... I have not been involved with anyone but I don't know what my husband can have been up to

## **Box 2: The communicative teaching process (guideline)**



- (1) The student directly asks about personal aspects of the ailment: unresolved concerns, ideas, expectations (or clearly facilitates the patient's expression)
- (1') The student picks up a "clue" that can provide information about an unresolved emotional state, feeling or concern

# Step 2 : Tracing

- (2) The student tries to clarify the possible clue or feeling (usually this is offered vaguely or indirectly) to identify any specific reason or cause that makes it the feeling arising more understandable (In many real situations patients can not go beyond vague or unstructured ideas and in many others may show reluctance to reveal)
  - (3) Once the idea or concrete fear has been exposed (and usually not understood), the student inquires about the reasons why such concrete ideas generate these emotions (usually grounded on specific patient life experiences)

# Step 3: Closing

- (4) The student can now to convey his/her understanding more empathetically to the patient

Box 3: Examples of the steps process in three different situations

## 1 Affective clue (feeling, emotion) Short version (step 4 absent)

- P: I visited another doctor for these same symptoms, and ... well ... better I needn't have bothered going.
- S: What do you mean? (1')
- P: no ... nothing ... well I wasn't paid all that much attention ...
- S: How so?
- P: Well, I think ... when he saw my medical records I think he was thinking "same old story" and it took him less than a minute to see me out the door "
- S: ... I understand ... (silence); that must have been frustrating for you (2)
- P: Yes,a pretty unpleasant situation ... you go to the doctor and... then when you realize that he does not show the slightest interest in you it's tough
- S: ... of course I understand that this lack of interest would make you feel this way (3), let's see what we can do.

## 2) Contextual clue (belief and fear) Full Version

- S: Is there anything in particular that worries you about this headache? (1)
- P: Well what I told you, it's been going on for ages ... I have never had a headache for so long!!
- S: And so you think you may have something different from what you have had so far? (1')
- P: Yes of course ... see ... one thinks about everything, though it may seem silly ... there are so many things ... that frighten me
- S: And why are you frightened about in particular? (2)
- P: Well, that it may be something more serious
- S: What has crossed your mind? (2)
- P: ... Well, that it may be a tumor
- S: Is there anything that makes you to think you may have a tumor? (3)
- P: Well you know where I work, you know I am a clinical assistant, there one hears and sees all kinds of things
- S: And what did you hear that started you worrying? (3)
- P: Some days ago a collegue's friend was admitted to hospital ... she had had a headache for three months, nothing else ... and they said to her there was nothing to be done, no operation, nothing
- S: that is tough, I understand you... (4)
- P: Well I don't mean to tell you that I think this is also my case but I can't stop thinking about it, ...although it's best not to think about it, don't you think, doctor?

#### 3) Full version (variant)

- P: Well I know I have irritable bowel syndrome and also I know it has ups and downs, but hey ... well you never know!!
- S: Then, are you concerned it could be something else? (1')
- P: Yeah, well ... I don't know but ... what I know for sure is that there are diseases that evolve or predispose you to have something different... and that scares me a bit
- S: And you thought then in your case it may be something else? (2)
- P: Well look, I have a few ideas flying around my head,...that's normal, right?
- S: Of course (silence) anything specific? (2)
- Q: ... look I have the case of a friend who was diagnosed with a polyp in the gut and he visited the doc three times and at last he was refered for a colonoscopy and it was colon cancer not a polyp and he is going to be operated on: to have a colostomy,..fuck! That's something to lose sleep over, right?
- S: Of course I understand what you're telling me about your friend is tough and I also understand your frustration ... so do you think t you could also have cancer? (4,3)
- Q: It is not that, but maybe it turns out that instead of an irritable bowel what I actually have is an inflammatory disease and I know this can also end up in a colostomy, just like my friend

S: OK, now I understand (4)