How family physicians respond to unpleasant emotions of ethnic minority patients.

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### Abstract

## Objective

The diversity in our society makes patient-centered care more difficult. In this study, we aim to describe how family physicians respond to unpleasant emotions of ethnic minority patients.

# Methods

One hundred ninety one consultations of family physicians with ethnic minority patients were video-recorded and analyzed using the Verona Codes for Provider Responses (VR-CoDES-P) to describe physicians' responses to patients' expressed unpleasant emotions or cues (implicit) and concerns (explicit).

## Results

42.4% (n=81) of all the consultations contained no cues or concerns, and thus no physician responses. Of the consultations containing at least one cue or concern, a mean of 3.45 cues and a mean of 1.82 concerns per consultation were found. Physicians are significantly ( $p \le 0.001$ ) more frequently stimulating further disclosure of patients' cues and concerns (providing space: n=339/494 or 68.6% versus reducing space: n=155/494 or 31.4%). However, these explorations are more often about the factual, medical content of the cue than about the emotion itself (n=110/494 or 22.3 % versus n=79/494 or 16%). The inter-physician variation in response to patients' cues is larger than the variation in response to the patient's concerns.

## Conclusions

Although family physicians are quite often providing room for patients' emotions, there is much room for improvement when it comes to explicitly talking about emotional issues with patients.

## Practice implications

Further research should focus on a more qualitative in-depth analysis of the complex interplay between culture and language of ethnic minority patients in primary care and, consequently, create awareness among these healthcare providers about the importance of ethnic minority patients' emotions and how to respond accordingly.

### Introduction

Over the past two decades, there has been a global migration of people from and to various places in the world [1]. In 2007, Vertovec introduced the term super-diversity to emphasize the level of complexity of today's society, a transformation that affects all Western countries [1]. According to the official numbers in 2014, 46,811 foreigners arrived in the Flemish part of Belgium for a long stay (more than three months), which means that immigration has doubled compared to numbers in 2000 [2]. In Brussels, for example, the capital of Belgium and Europe, two out of every three residents are immigrants, making it a majority minority city where the native population has become a minority [3]. Our super-diverse society exudes multiculturalism due to the interplay of various dynamic variables, such as country of origin, migration channel, and legal status, leading to new and complex social formations [1]. For the local healthcare system, and in particular primary care services, this shift has many implications and entails various challenges, of which the language barrier and its consequences is one of the most challenging obstacles [4].

Primary care in Belgium, represented by family physicians, is mostly the first contact for every patient. During these medical encounters patients often express various emotions that are intrinsic to their health and illness perceptions [5]. The way physicians respond to these explicitly or implicitly expressed emotions will have an influence on patients' outcomes. Friendliness, warmth and empathy expressed by the physician is associated with lower levels of anxiety and uncertainty, which improves trust between both and leads to an increase in patient satisfaction and adherence [6-8].

Studies in primary care have shown that affective communication is often a challenge for physicians, in particular in encounters with ethnic minority patients [9-11]. Previous studies have revealed that, compared to encounters where physician and patient share the same culture, in encounters with ethnic minority patients both physician and patient behave differently toward each other. In the latter, there is less affective behavior, such as less social talk and empathy, and they are less emotionally engaged with each other [9-12]. Furthermore, both patient and physician communicate differently about unpleasant emotions [12-15]. While ethnic minority patients reveal fewer emotional cues, physicians show less positive affect and a lower degree of patient centered response with ethnic minority patients [15-16].

Nevertheless, ethnic minority patients find a physician's display of concern, courtesy and respect very important [17]. This affectively imbalanced relationship between physicians and ethnic minority patients not only hinders further contact between both, but also decreases the chance of reaching a mutual understanding of the patient's health complaints and delivering an adequate treatment plan based on a shared decision [10].

Previous studies already examined cues and concerns expressed by ethnic minority patients [9 - 11, 15, 18]. While some of these studies mainly focus on the comparison between native patients and specific ethnic minority patient groups [9-11], others focus on specialist care [18].

While Schouten & Schinkel [11] concluded that migrant patient-related factors may influence the amount of cue expression in primary care, they also stated that this study should be replicated in a more heterogeneous migrant sample. This study answers to this specific request, as well as to the underlying principle of the super-diverse society [1], making it, to our knowledge, the first that studies general practitioners' responses to the expressed cues or concerns of ethnic minority patients of all origins in relation in family practice.

The aim of this study is to gain a deeper insight into the emotional communication of intercultural consultations in primary care in Belgium. In particular, we aim to explore the responses of family physicians to the expressed negative emotions of ethnic minority patients during medical consultations.

### Methods

## Study design

In this observational study, physician-patient consultations with ethnic minority patients were video-recorded and analyzed for patients' expression of unpleasant emotions and physicians' subsequent responses to these expressed emotions.

### Data collection

All 77 primary care physicians working in areas in Ghent with more than 25% ethnic minority inhabitants were contacted and asked to participate in the study.

Subsequently, all patients from ethnic minority backgrounds who consulted the participating physicians were invited to participate, until 15 consultations per physician were recorded. Patients were recruited in the waiting room, the subject and aims of the study were explained by a trained researcher, and informed consent (available in nine languages) was obtained. Patients and physicians were asked to do the consultation as usual. Under no circumstances did the researcher interfere with the consultation, and she did not add or exclude interpreters from the consultation. Patients were asked to complete a questionnaire asking for demographic data.

Patients had to be older than 18, born in a non-western country (outside Western and Northern Europe, the US, Canada, Australia and New-Zealand) or have at least one parent born in a non-Western country to be included in the study.

Occupational status was classified according to the Standard Occupational Classification, published by the Office of Population Censuses and Surveys, and was categorized into 3 groups: high (professional and managerial), middle (skilled non-manual and skilled manual) and low (semiskilled, unskilled and unemployed). Each patient who agreed to participate was interviewed before the consultation to assess their language proficiency. In case of doubt, the patient's language proficiency was discussed afterwards with a senior researcher.

#### Analysis

To code for emotional sequences in the physician-patient interaction, the Verona coding definitions for emotional sequences - VR-CoDES [19-20] - were used, where both patient cues and concerns are defined (VR-CoDES-CC) along with health provider responses to them (VR-CoDES-P) (see figure 1). Patients' expressions of emotional matters were coded as "cues" and "concerns". Cues are "verbal or nonverbal hints which suggest an underlying unpleasant emotion that lacks clarity," while concerns are "clear and unambiguous expressions of an unpleasant current or recent emotion that is explicitly verbalized" with or without a stated issue of importance. Health provider responses to patients' cues or concerns were grouped together into large subcategories based on the explicitness of the response (= explicit versus non-explicit), and whether physicians' responses were stimulating patients to further disclose the mentioned cue/concern (= providing or reducing space). Furthermore, these categories contain a more detailed subcoding system. Responses that explicitly stimulate the patient to further talk about the emotion (= explicit providing space) can be about content

(Patient: "This headache is really killing me, doctor, I don't know what it could be...". Physician: "Could you tell me more about that headache?"), or about the affect ("Can you tell me what it is exactly that is worrying you?"). Empathy could be implicit ("Yes, I can see that") or explicit ("I understand that this headache is worrying you quite a bit"). Reducing space can be done in an implicit manner ("Well let's have a look at your head then, shall we?"), or explicitly ("Oh please don't worry about the headache, I can assure you it's nothing!").

## Figure 1: The VR-CoDES-P flow chart–Responses to cues/concerns

# [Insert Figure 1]

A more detailed description of the coding system can be found at <u>www.each.eu</u> (VR-CoDES manual).

Initial coding was done by two researchers using the version of the VR-CoDES that was available at the time of the study. After adjustment of the coding system and further training and reviewing, the final coding was done by one researcher. Six consultations were coded independently by three researchers (two trained students and one physician). Inter rater reliability was calculated for the second level of the coding system (explicit provide/ explicit reduce/ non-explicit provide/ non-explicit reduce) (Cohen's kappa= 0.6).

Researchers scored physicians' language proficiency of the language spoken during the consultation on a 6-point Likert scale.

## Statistical analysis

Interphysician variation was examined through the non-parametric Kruskal-Wallis test (oneway analysis of variance).

### Results

Description of consultation, patient and physician population.

Consultation description (See Table 1)

191 consultations were coded. An interpreter was present in 19.4% (n=37) of the consultations. None of them were professionals. 21.6% (n=8) were partners, 35.1% (n=13) a relative, 16.2% (n=6) a friend or acquaintance, and 18.9% (n=7) a child. In three cases (8%) the relationship between the patient and the interpreter was unknown. More than 82% (n=157) of the patients talked only about medical problems, 5.8% (n=11) only about psychosocial reasons and 12% (n=23) about both.

#### [Insert Table 1]

### *Physician sample description (see Table 2)*

All 77 primary care physicians working in the area were invited to participate in the study. 9% of the physicians (n=7) were unreachable during the recruitment phase, and 68.8% (n=53) refused to participate, due to not having enough minority patients (n=14), time restraints (n=15), colleagues from the practice participating (n=13), refusing to have their patients recorded (n=1) or no reason was given (n=10). 22,1% (n=17) of the physicians were willing to participate. Three physicians dropped out during the study.

Eventually, 18.2% (n=14) of physicians participated, of whom seven were female, which constitutes an overrepresentation of them when compared to 37.6% female physicians working in the recruitment area. No physicians working in solo practices in Ghent participated. Five physicians worked in a group practice, and nine in a Community Health Centre. None of the physicians had very poor language proficiency for the language used in the consultation. In 16.2% (n=31) of the consultations the physician had moderate language proficiency, in 3.1 % (n=6) language proficiency was poor.

### [Insert Table 2]

## Patient sample description (See Table 3)

44% (n=84) of the patients were men. Patients were between 18 and 74 years old. 37.4% (n=71) of the patients had no education or only primary school education, 18.7% (n=36) had higher education. 58.8% (n=112) of the patients in this sample could be classified in the lowest, 34% (n=65) in the middle, and 7.2 % (n=14) of the patient sample in the highest occupational class. The country or continent of origin was most frequently Russia and Eastern

Europe (n=46 or 23.9%), Africa (n=39 or 20.6%), Northern African countries (n=27 or 14.2%), and Turkey (n=22 or 11.6%). 26.6% (n=51) of the patients have arrived in Belgium less than five years ago, 42.7 % (n=82) between six and ten years, 17.7% (n=34) between 11 and 20 years and 12.9% (n=24) arrived more than 20 years ago.

Patients' reasons not to participate were for example feeling too sick, not having the time to complete the questionnaire, confidentiality of the consultation, objections by the partner or objections to video-recording.

### [Insert Table 3]

### Cues and concerns

Of all the consultations, 42.4% (n = 81) contained no cues or concerns, and thus no physician responses.

In the corpus of consultations that contained a minimum of one cue or concern (n=110), a mean of 3.45 cues per consultation was found with a maximum of 18 cues per consultation. Concerns were present in 30.9% (n=34) of the consultations, with a maximum of four and a mean of 1.82 per consultation.

#### Description of physician responses (see Table 4)

Figure 1 gives a detailed description of the physicians' responses to the expressed cues and concerns in the consultations.

Of all responses (n=494), explicit and non-explicit responses were approximately equally divided into 254 (51.4%) non-explicit and 240 (48.6%) explicit responses. Significantly more responses were "providing" (n=339/494 or 68.6%) than "reducing" (n=155/494 or 31.4%). See table 4 for a more detailed overview.

### [Insert Table 4]

### Explicit responses

Explicit responses (n=240/494) have a mean of two per consultation. Significantly, more of these were stimulating the patient to further open up (providing (n=189/494 or 38.3%) than reducing responses (n=51/494 or 10.3%) (p $\leq$ 0.000).

## -Explicit Providing responses-

Of the explicit providing responses, more were about the content of the cue (n=110/494 or 22.3%), than about the affect (n=79/494 or 16%).

The code "explicit providing space, content" contains both "acknowledging" and "exploring" the factual content of a cue or concern, not the emotional content. Responses were coded "explicit providing space, affect" when the affective part of the cue or concern is explicitly referred to, which might be an acknowledgment, an exploration or a clearly stated, empathic response. There were very few empathic responses: implicitly (n=19) or explicitly (n=18). Twenty consultations contained minimum 1 empathic (implicit or explicit) event in response to a patient's cue or concern.

## -Explicit Reducing responses-

Explicitly reducing responses (n=51/494 or 10.3%) were the least frequent group of responses. The major part of these were "information, advice" (n=36), in which physicians give information, advice or reassurance, explicitly referring to the cue/concern, but not offering further room for disclosure. "Switching" (n=8) and "active blocking" (n=7) are much less frequent; "postponing" was not observed in this study.

#### Non Explicit responses.

Non-Explicit responses (n=254/494 or 51.4%) had a mean of 2.22 per consultation.

### -Non Explicit Providing responses-

Non-explicit providing responses (n= 150/494 or 30.4%) include "silence", "backchanneling", "acknowledging", "active invitation" and "implicit empathy".

"Backchanneling," through the use of minimal words like "hm-hm" together with an appropriate non-verbal response, but not through full statements, was used 69 times (46% of Non Explicit Providing responses), covering the largest part of the non-explicit providing responses. "Acknowledging," by offering room to the patient for further expression but without mentioning the emotion or the context - e.g. "I see" - was observed 36 times. Least frequent groups were physicians' "active invitation" to further talk about the cue/concern occurs (n=21), "implicit empathy" (n=19) and "silence" (n=5).

## -Non Explicit Reducing responses-

Non Explicit Reducing responses (n=104/494 or 21,1%) were "ignoring" the patients' cue or concern (n=48), implicitly "shutting down" (n=35) - e.g. when physician's body language and attention are clearly directed away from the patient while he/she is talking - and "giving information or advise" or "reassuring" (n=21) without explicitly referring to the cue/concern.

#### Reducing responses

Of all reducing responses, significantly more were non-explicit (n=104/494 or 21,1%) than explicit (n=51 or 10.3%). The mean of reducing responses per consultation was 1.35.

#### **Providing responses**

Providing responses were significantly more often explicit (n=189/494 or 38.3%) than non-explicit (n=150/494 or 30.4%), with a mean of 2.91 per consultation.

### Interphysician variation

Bivariate correlations showed significant differences between physicians in ways of responding to unpleasant emotions; especially in attending to cues there were substantial inter-physician differences (providing space:  $\chi^2(494)=60.935$ , p<0.001). In responding to concerns, no significant differences were observed.

### Discussion and conclusion

### Discussion

The results found in this study provide detailed insight into how family physicians respond to the expressed unpleasant emotions, or cues and concerns, of ethnic minority patients during medical encounters in primary care.

About half of the 191 recorded consultations with ethnic minority patients contained no patients' cues and/or concerns and thus opportunities for these physicians to respond. It is possible that with ethnic minority patients, underlying emotions are veiled by a language barrier and thus missed by the standard VR-CoDES [21]. However, this is in line with previous findings reporting high numbers of consultations without any emotional utterances

[18; 22]. Yet, literature suggests that opening up for patient emotions and providing empathic responses can be associated with several positive patient outcomes, such as reduced distress and symptom resolution, as well as increased patient adherence [23-26].

In this study, we found that when family physicians responded to a cue or concern of the patient, they were slightly more often non-explicit. In both cases, explicit and non-explicit responses, space providing responses were the most frequently observed. This means that family physicians mostly stimulate patients to further disclose the concerns they have been experiencing. However, the inviting utterances are more often about the factual, medical content of what patients worry about, rather than about the actual emotion itself [27]. This is in line with the results found by Schouten and Schinkel, who also found that these responses are more non-explicit and explicit space providing and seldom directed towards the affective content of the patients' cues, despite the fact that Turkish-Dutch patients express more cues compared to the native population [11]. In this way, the physician acknowledges the importance of, for instance, the operation, but does not explore the explicit emotion underlying the concern that was expressed by the patient. One explanation can be that physicians may think that giving information, with or without the aim to reassure patients, is most appropriate in dealing with patients' emotions. This can be interpreted as ignoring the emotion, which consequently give patients less space to further elaborate on the expressed emotion underlying the cue or concern [28-30]. Another possible explanation is that physicians might deliberately, in some cases, choose not to go deeper into the expressed emotions in order to keep control of the consultation [31].

In accordance with the existing literature [32-33], few implicit or explicit empathic responses were found. In another study, in oncological care, Pollak et al. found that only 29% of patients' cues or concerns were followed by empathic responses of physicians [34]. In this study, no empathy was found in the family physician's subsequent responses in 82% (n=90/110) of the consultations with at least one cue or concern. However still rare, explicit empathy and acknowledgment together are more frequent. Still, in more than half of all the consultations no explicit empathy or acknowledgment was observed. A previous study of Sleath et al. found that physicians expressed an average of 1.25 empathic statements per consultation with Hispanic patients, but in more than 60% of the encounters empathic statements were absent [35]. However, in medical encounters with ethnic minority patients, it is more complex. These encounters face multiple barriers, two of which are culturally specific

behavior and not sharing the same language [10-12]. Even though physicians behave less affectively when interacting with ethnic minority patients, the patients themselves are less verbally expressive. Compared to native patients, ethnic minority patients are less assertive and affective during the medical encounters [10-12; 16]. The other obstacle, the language barrier between the ethnic minority patient and the physician, also hinders the patients' efforts to express themselves clearly and the adequacy of the physician's responses [18]. These communication difficulties have severe consequences, resulting in a vicious circle from less involvement in decision making and lower levels of understanding to less medication adherence and, as a consequence, worse health outcomes.

Culture and language form a complex interplay. It could be argued that the presence of an interpreter (professional or informal) would help to overcome at least the language barrier. It could be argued that interpreters would bring over all the emotions in the same way the patient expresses them. Nevertheless research reveals that only 20% to 50% of the patients' cues are translated, because most interpreters tend to summarize during translation [10;36].

## Limitations

The number of physicians was relatively small, raising two specific limitations.

We were unable to investigate how much of the variation could be explained on the physician level (inter-physician variation). In previous literature, the attribution of the variation to the GP's characteristics ranged from 9% to 26%, meaning that only a quarter can be explained by differences between physicians [37-38]. Other studies did not find that the responses of physicians could be explained by the characteristics of physicians, in terms of age and gender [39], but did found differences in terms of physicians' specialty [40].

Further, because only 14 out of 77 physicians working in the recruitment area agreed to participate in this study, the question of selection bias can be raised. Physicians who agreed worked mainly in community health centers. Two group practices that were not community health centers were included. No physicians in solo practice agreed to participate. Community health centers are very often located in deprived urban areas and show higher representations of minority groups in both patient population and staff. Their policy aims at providing high quality care to a very diverse patient group with diverse needs and expectations. Physicians who work in community health centers have a more positive attitude towards working with

minority patients [41]. Due to this selection bias, results might reflect more positive attitudes and thus more positive communication strategies than would be the case in the general population.

Future research should include more physicians who work in solo practice to rule out selection bias. Another possible limitation is the overrepresentation of female physicians in this study. Given the fact that female physicians tend to behave more empathically [18; 41-42], this could mean that in reality even fewer empathic responses are given.

### Conclusion

Although family physicians are quite often providing room to patients' unpleasant emotions, there is much room for improvement when it comes to explicitly talking about emotional issues with patients. Especially in vulnerable groups, such as minority patients, attention should be paid to eliciting the wish to express, and responding to patients' (unpleasant) emotions.

## Practice implications

The implications of this study are twofold. Firstly, further research should focus on a more qualitative in-depth analysis of the complex interplay between culture and language of ethnic minority patients in primary care. Consequently, creating awareness among healthcare providers in primary care about the importance of ethnic minority patients' (unpleasant) emotions and how to adequately respond to the expressed emotions should be implemented more in future medical training.

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## References

- 1. Vertovec, S. [2007] 'Super-diversity and its implications', Ethnic and Racial Studies 29(6): 1024-54
- Van den Broucke, Sarah; Noppe, Jo; Stuyck, Karen; Buysschaert, Philippe; Doyen, Gerlinde & Wets, Johan (2015). Vlaamse Migratie- en Integratiemonitor 2015. Antwerpen/Brussel: Steunpunt Inburgering en Integratie/Agentschap Binnenlands Bestuur.
- Dirk Geldof, 2016. Superdiversity in the heart of Europe. How migration changes our society. Leuven/Den Haag, Acco,
- 4. Aelbrecht K, Pype P, Vos J, Deveugele M. Having cancer in a foreign country. PATIENT EDUCATION AND COUNSELING. 2016
- Laakso V, Niemi PM, Gronroos M, Karlsson H. Relieved after GP's consultation? Change in the complaint-related worry of young adult patients. Psychol Health Med. 2008;13(3):291-302. Epub 2008/06/24.
- Roter DL, Frankel RM, Hall JA, Sluyter D. The expression of emotion through nonverbal behavior in medical visits. Mechanisms and outcomes. J Gen Intern Med. 2006;21 Suppl 1:S28-34. Epub 2006/01/13.
- Uitterhoeve RJ, Bensing JM, Grol RP, Demulder PH, T VANA. The effect of communication skills training on patient outcomes in cancer care: a systematic review of the literature. Eur J Cancer Care (Engl). 2010;19(4):442-57. Epub 2009/12/25.
- Fiscella K, Meldrum S, Franks P, Shields CG, Duberstein P, McDaniel SH, et al. Patient trust: is it related to patient-centered behavior of primary care physicians? Med Care. 2004;42(11):1049-55. Epub 2004/12/14.
- Meeuwesen L, Harmsen JAM, Bernsen RMD, Bruijnzeels MA. Do Dutch doctors communicate differently with immigrant patients than with Dutch patients? Social Science & Medicine. 63 (2006) 2407-2417.
- Schouten BC, Schinkel S. Turkish migrant GP patients' expression of emotional cues and concerns in encounters with and without informal interpreters. PATIENT EDUCATION AND COUNSELING. 97 (2014) 23-29

- 11.Schouten, B. C., & Schinkel, S. (2015). Emotions in primary care: are there cultural differences in the expression of cues and concerns? PATIENT EDUCATION AND COUNSELING, 98(11), 1346-1351
- 12. Schouten BC, Meeuwesen L. Cultural differences in medical communication: A review of the literature. PATIENT EDUCATION AND COUNSELING. 64 (2006) 21-34
- Cooper-Patrick L, Gallo JJ, Gonzales JJ, Vu HT, Powe NR, Nelson C, et al. Race gender partnership in the patient-physician relationship. J Amer Med Assoc. 1999; 282:583–9.
- Harmsen H, Meeuwesen L, van Wieringen J, Bernsen R, Bruijnzeels M. When cultures meet in general practice: intercultural differences between GPs and parents of child patients. PATIENT EDUCATION AND COUNSELING. 2003; 51:99–106.
- 13. Schouten BC, Meeuwesen L, Harmsen HA. GPs' interactional styles in consultations with Dutch and ethnic minority patients. J Immigr Minor Health. 2009;11:468–75.
- 15. De Maesschalck S, Deveugele M, Willems S. Language, culture and emotions. (2011). Language, culture and emotions: exploring ethnic minority patients' emotional expressions in primary healthcare consultations. PATIENT EDUCATION AND COUNSELING, 84(3), 406–412.
- Johnson RL, Roter D, Powe NR, Cooper LA. Patient race/ethnicity and quality of patientphysician communication during medical visits. Am J Public Health. 2004;94(12):2084-90. Epub 2004/12/01.
- 17. Murray-Garcia JL, Selby JV, Schmittdiel J, Grumbach K, Quesenberry CP, Jr. Racial and ethnic differences in a patient survey: patients' values, ratings, and reports regarding physician primary care performance in a large health maintenance organization. Med Care. 2000;38(3):300-10. Epub 2000/03/16.
- 18. Kale E, Finset A, Eikeland H, Gulbrandsen P. Emotional cues and concerns in hospital encounters with non-Western immigrants as compared with Norwegians: an exploratory study. PATIENT EDUCATION AND COUNSELING. 2011;84: 325–31.
- 19. Del Piccolo L, de Haes H, Heaven C, Jansen J, Verheul W, Bensing J, et al. Development of the Verona Coding Definitions of Emotional Sequences to code health providers' responses (VR-CoDES-P) to patient cues and concerns. PATIENT EDUCATION AND COUNSELING. 2011;82: 149–155.

- 20. Zimmermann C, Del Piccolo L, Bensing J, Bergvik S, De Haes H, Eide H, et al. Coding patient emotional cues and concerns in medical consultations: The Verona coding definitions of emotional sequences (VR-CoDES). PATIENT EDUCATION AND COUNSELING. 2011;82: 141–148.
- 21. Kale E, Skjeldestad K, Finset A. Emotional communication in medical consultations with native and non-native patients applying two different methodological approaches. PATIENT EDUCATION AND COUNSELING. 2013; 92: 366–37.
- 22. Zimmermann C, Del Piccolo L, Finset A. Cues and concerns by patients in medical consultations: a literature review. Psychol Bull. 2007;133(3):438-63. Epub 2007/05/02.
- 23. Duric V, Butow P, Sharpe L, Lobb E, Meiser B, Barratt A, et al. Reducing psychological distress in genetic counseling consultations for breast cancer. J Genet Couns 2011;12:243–64.
- 24. Kim SS, Kaplowitz S, Johnston MV. The effects of physician empathy on patient satisfaction and compliance. Eval Health Prof 2004;27:237–51.
- 25. Hojat M, Louis DZ, Markham FW, Wender R, Rabinowitz C, Gonnella JS. Physicians' empathy and clinical outcomes for diabetic patients. Acad Med 2011;86:359–64.
- 26. Kelley JM, Lembo AJ, Ablon JS, Villanueva JJ, Conboy LA, Levy R, et al. Patient and practitioner influences on the placebo effect in irritable bowel syndrome. Psychosom Med 2009;71:789–97.
- 27. Epstein RM, Hadee T, Carroll J, Meldrum SC, Lardner J, Shields CG. "Could this be something serious?" Reassurance, uncertainty, and empathy in response to patients' expressions of worry. J Gen Intern Med. 2007;22(12):1731-9. Epub 2007/11/01.
- 28. Bell RA, Kravitz RL, Thom D, Krupat E, Azari R. Unmet expectations for care and the patient–physician relationship. J Gen Int Med 2002;17:817–24.
- 29. Kennifer SL, Alexander SC, Pollak KI, Jefreys AS, Olsen MK, Rodriguez KL, et al. Negative emotions in cancer care: Do oncologists' responses depend on severity and type of emotion? PATIENT EDUCATION AND COUNSELING. 2009;76:51–6.
- Epstein RM, Hadee T, Carroll J, Meldrum SC, Lardner J, Shields CG. "Could this be something serious?" Reassurance, uncertainty, and empathy in response to patients' expressions of worry. J Gen Int Med 2007;22:1731–9.

- 31. Cocksedge S, May C. The listening loop: a model of choice about cues within primary care consultations. Med Educ. 2005;39(10):999-1005. Epub 2005/09/24.
- 32. Suchman AL, Markakis K, Beckman HB, Frankel R. A model of empathic communication in the medical interview. JAMA. 1997;277(8):678-82. Epub 1997/02/26.
- 33. Levinson W, Gorawara-Bhat R, Lamb J. A study of patient clues and physician responses in primary care and surgical settings. JAMA. 2000;284(8):1021-7. Epub 2000/08/17.
- 34. Pollak KI, Arnold RM, Jeffreys AS, Alexander SC, Olsen MK, Abernethy AP, et al. Oncologist communication about emotion during visits with patients with advanced cancer. J Clin Oncol 2007;25:5748–52.
- 35. Sleath B, Rubin RH, Arrey-Wastavino A. Physician expression of empathy and positiveness to Hispanic and non-Hispanic white patients during medical encounters. Fam Med. 2000;32(2):91-6. Epub 2000/03/04.
- 36. Butow PN, Brown RF, Cogar S, Tattersall MHN, Dunn SM. Oncologists' reactions to cancer patients' verbal cues. Psycho-Oncology 2002;11:47–58.
- 37. Deveugele, M., Derese, A., De Bacquer, D., VAN DEN BRINK-MUINEN, A., BENSING, J., & De Maeseneer, J. (2004). Consultation in general practice: a standard operating procedure? Patient Education and Counseling, 54(2), 227–233.
- 38. Deveugele, M., Derese, A., De Bacquer, D., VAN DEN BRINK-MUINEN, A., BENSING, J., & De Maeseneer, J. (2004). Is the communicative behavior of GPs during the consultation related to the diagnosis? A cross-sectional study in six European countries. Patient Education and Counseling, 54(3), 283–289.
- 39. Butalid, L., Verhaak, P. F., van Dulmen, S., & Bensing, J. M. (2014). Concerns voiced by patients and GPs' responses during psychosocial visits in primary care: a historical crosssectional study. BMC Family Practice, 15, 188.
- 40. Mjaaland, T.A., Finset, A., Jensen B.F., Gulbrandsen, P. (2011). Physicians' responses to patients' expressions of negative emotions in hospital consultations: a video-based observational study. Patient Education and Counseling, 84(3): 332–337.
- 41. Beck RS, Daughtridge R, Sloane PD. Physician-patient communication in the primary care office: a systematic review. J Am Board Fam Pract. 2002;15(1):25-38.
- 42. Roter DL, Hall JA. Physician gender and patient-centered communication: a critical review of empirical research. Annu Rev Public Health. 2004;25:497–519.

# Figures and Tables

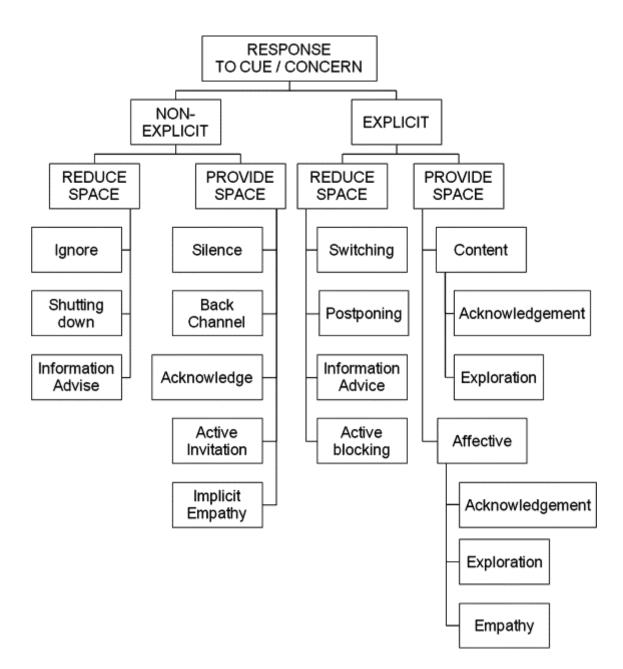


Figure 1: The VR-CoDES-P flow chart– Responses to cues/concerns

Table 1: Consultation description (n=191)	
	%
Language spoken	
- Dutch	68.2
- English	14.1
- French	11.5
- Other	6.2
Interpreter present	19.4
Type of interpreter	
- Partner	23.5
- Family (adult)	38.2
- Child	20.6
- Acquaintance	17.6
Type of consultation	
- Medical	82.2
- Psychosocial	5.8
- Mixed	12

Table 2: Physician sample description		
	%	
Gender (n=14)		
- Male	50	
- Female	50	
Practice (n=14)		
- Group	35.7	
- Community Health Centre	64.3	
Physicians' language proficiency (n=191)		
- Not/very poor	0	
- Poor	3.1	
- Moderate	16.2	
- Good	14.1	
- Mother tongue	66.5	
*language used during the consultation		

Table 3: Patient sample description (n=191)	
Age (Mean)	37
	%
Gender	
- Male	44
- Female	56
Region of origin (n=151)	
- Russia and Eastern Europe	23.9
- Sub-Sahara Africa	20.6
- Belgium (=second generation)	19.4
- North African countries	14.2
- Turkey	11.6
- Asia	7.7
- Middle Eastern countries	2.6
Years in Belgium (n=123)	
- 01-05 yrs.	26.6
- 06-10 yrs.	42.7
- 11-20 yrs.	17.7
- 21-30 yrs.	4.8
- > 30 yrs.	8.1
Born in Belgium	19.4
Educational level (n=155)	
- None/primary school	37.4
- Secondary school	43.9
- Higher Education	18.7
Occupational Status (n=153)	
- Low	58.8
- Middle	34
- High	7.2
Patient Language Proficiency (n=191)	
- Not/very bad	21.5
- Bad	14.7
- Moderate	18.8
- Good	22.5
- Very good/ Mother Tongue	22.5

Table 4: Description of physician responses (n=494)		
	N (%)	Mean (SD)
Reducing space	155 (31.4)	1.35 (1.6)
Providing space	339 (68.6)	2.91 (3.2)
Explicit	240 (48.6)	2.06 (2.1)
Non Explicit	254 (51.4)	2.22 (2.4)
Explicit Providing	189 (38.2)	1.6 (1.9)
Explicit Reducing	51 (10.3)	0.38 (0.68)
Non-explicit Providing	150 (30.4)	1.22 (1.69)
Non-explicit Reducing	104 (21)	0.9 (1.2)
Explicit Providing Space Affect	79 (16)	0.72 (1.3)
Explicit Providing Space Content	110 (22.3)	1.00 (1.5)