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EDICIONES COMPLUTENSE

How physicians respond to the emotional expressions of people with cancer

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Abstract. Objective: The aim of this study is to examine patient emotional cues to oncologists' responses and explore the association between the concerns and emotional cues during the consultation and the physicians' response to them throughout treatment, satisfaction, and the assessment of the patients' perception of the established communication. Method: Cross-sectional design, involved 12 adults patients undergoing cancer treatment and eight physicians in the study. The twelve video-recorded medical consultations were coded (349 cues/concern) using the Verona coding definitions of emotional sequences (VR-CoDES). Results: A strong association between explicit with reducing space responses and the physiological symptoms cues (x^2=6.029; p=0.014), and related to the repetition cue of the content by the patient (x^2=5.599; p=0.018) was observed. Patients expressed fewer non-verbal behaviors (for example, crying, silence, silent pauses), as they had been undergoing treatment for a longer time, therefore, provided with more empathic responses from physicians. Conclusion: The identification of emotions can help physicians to further explore patients' underlying cues that reveal emotional distress concerning illness and treatment in a less explicit way. There is a need for improvement in the physician's ability to recognize patients' concerns and to provide space for patients to have comprehensive health care, considering the severity of cancer disease and its negative emotional impacts for patients.
Keywords: Emotions, communication, psycho-oncology, patient satisfaction, cancer.

[es] Cómo responden los médicos a las expresiones emocionales de las personas con cancer

Resumen. El objetivo de este estudio es examinar cómo los oncólogos responden a las preocupaciones emocionales de las personas con cáncer durante el tratamiento, relacionarlas con la satisfacción y evaluar las percepciones de comunicación de los pacientes. Diseño transversal, en el que participaron 12 pacientes adultos en tratamiento oncológico y ocho médicos en el estudio. Las doce consultas médicas grabadas en vídeo se codificaron (349 pistas/inquietudes) utilizando las definiciones de codificación de secuencias emocionales de Verona (VR-CoDES). Hubo fuerte asociación entre respuestas explícitas con reducción de espacio y claves de síntomas fisiológicos (x^2=6,029; p=0,014), y relacionada con la repetición de claves de contenido por parte del paciente (x^2=5,599; p=0,018). Los pacientes expresaron

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menos comportamientos no verbales (por ejemplo, llanto, silencio, pausas silenciosas) ya que habían estado en tratamiento por más tiempo y, por lo tanto, tenían respuestas más empáticas por parte de los médicos. La identificación de las emociones puede ayudar a los médicos a explorar más a fondo las pistas subyacentes de los pacientes que revelan angustia emocional por la enfermedad y el tratamiento de una manera menos abierta. Existe la necesidad de mejorar la capacidad del médico para reconocer las preocupaciones de los pacientes y hacer espacio para que los pacientes tengan una atención integral en salud, considerando la gravedad de la enfermedad oncológica y sus impactos emocionales negativos para los pacientes.
Palabras clave: Emociones, comunicación, psicooncología, satisfacción del paciente, cáncer.

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1. Introduction

In oncology, there is growing interest in assessing how patients express their emotions and how healthcare professionals, especially physicians, respond to concerns. Emotional communication in medicine is how patients express negative feelings and emotions concerning disease and treatment and how doctors respond to these emotional expressions[1–3]. The way physicians identify, understand, and encode patients' underlying concerns is closely related to improved psychological well-being, reducing anxiety, and promoting positive emotions[4], which impacts health outcomes and treatment adherence[5].

Patients with cancer express more cues on underlying the disease than explicit concerns, and physicians often use directive responses, with advice and clinical information, rather than empathetic and affective responses that encourage the patient to express their negative emotions[6–9]. In consultations, patients express different cues and concerns, and p physicians recognized just a few of these cues[10–14]. Emotional communication implies the identification of emotional cues and concerns and the physicians' responses to these emotional expressions[15,16].

The ability to recognize and respond to emotions is highly relevant for patient-centered communication, focusing on active listening, and considering the negative emotional impact caused by the disease[17]. Consequently, further to the ability to raise doubts and provide individualized information, the physician needs to be skilled to detect the emotions triggered during consultation. The ability for emotional communication also affects patients' perceptions of physician-patient communication, pain intensity, and self-efficacy for chronic disease management. Recent research has shown that positive perceptions of physician-patient communication were related to high levels of patient self-efficacy and low pain intensity[18].

Assessing the efficacy of communication skills reveals that physicians, fellows, and medical students have difficulty recognizing the patients´ emotions affected by chronic conditions[19–22]. The aim of this study is to examine patient emotional cues to oncologists' responses and explore the association between the concerns

and emotional cues during the consultation. In addition, the study explores the association between concerns and emotional cues during routine cancer consultations, physicians' responses, treatment time, satisfaction, and patient´s perception of communication.

2. Method

Design

The study used a cross-sectional design and an observational study of consultations with adult patients undergoing cancer treatment and physicians. We video-recorded twelve consultations with twelve adult cancer patients (ages: 36-84 years) and eight physicians and did a content analysis of the video recording consultation according[23]. We identified and coded 349 emotional cues/concerns and the responses to these in the twelve. We used qualitative content analysis to study these emotional concerns and quantitatively explored associations between physicians' responses, treatment time, satisfaction, and patients' perception of communication.

Setting

We recruited from the oncology service of a private hospital, in the south of Brazil, between April 2018 and May 2018. The Research Ethics Committee of Unisinos University (proposing institution) and the Ethics Committee of the co-participating hospital, located in Southern Brazil, under No. 83879318.0.3001.5328, approved the research. All ethical considerations provided for in the resolution of the National Research Ethics Council—CONEP No. 510/2016 and the Humanities Resolution No. 466/2012, which regulate research with human beings, took into account. All participants signed the Informed Consent Form (ICF).

Participants

The patients (n=12) were in treatment at an outpatient clinic (M=28.42 months; SD=38.59 months) in a private hospital in a city in southern Brazil, attended by health insurance. Patients aged between 36 and 84 years (M=63.25 years; SD=15.70 years), with eight women and four men, most had higher education (n=7). Half of the patients underwent psychological treatment, and most (n=8) used psychopharmacological medication, including six on antidepressants. Family members, four by their daughters, escorted six patients. Two patients had breast cancer, and others had melanoma, polycythemia, myeloma, sarcoma, bladder, colon/intestine, prostate, rectum, ovary, and stomach cancer. Four patients had stage IV cancer (liver metastasis).

Eight patients were women and four men (M=63.25 years; SD=15.70 years), and seven had higher education, undergoing treatment for an average of 28.42 months (SD=38.59 months). We considered only routine follow-up clinics (i.e., health reexamination, verification of clinical exams, pre- and post-surgical consultations). We excluded consultation to disclose the diagnosis. Four patients had metastatic cancer. Regarding treatment, all patients underwent one of the three most common

interventions, chemotherapy, radiotherapy, or surgery, and three patients had already undergone the three treatments. The consultations had an average time of 25.46 min (SD=4.69min).

In addition, we recruited eight oncologists (a woman and seven men), aged between 33 and 59 years (M=42.88 years; SD=8.39 years), with an average of 13.38 years (SD=8.12 years) of experience in oncology. Half reported having training on communication skills throughout medical school. The physicians had different clinical specialties: four oncologists, an onco-hematologist, a surgical oncologist, a hematologist, and an internal medicine physician, who attended an average of 14.88 patients/day (SD=4.64).

The invitation started with a previous contact with the head of the oncology unit and the oncologists to participate in real-time research on physician-patient communication in oncology. Those who agreed to participate indicated the scheduled day of consultation of patients eligible to participate in the study. Next, we identified the potential participants; the patients in the waiting room invited to participate. Upon authorization, we requested consent for video recording of the consultations, and the sociodemographic and clinical questionnaire was applied. After, the patients answered two instruments: 1) satisfaction survey and 2) communication assessment. The application of the instruments was conducted in a private room at the hospital and lasted approximately 20 minutes. The video camera was placed in the physician's office, where the video recording took place, according to the physician's consent. The average time of consultations was 25.46 min (SD=4.69 min), and the recordings were analyzed respecting participants' confidentiality and identity.

Data collection

Data analysis performed according to the Verona Coding Definitions of Emotional Sequences (VR-CoDES). Researchers held six training meetings to learn the analysis methodology. The VR-CoDES is a deductive approach with pre-defined analyzes and categories that encode physician-patient interaction into analysis sequences and provide quantitative interpretations of patients' emotional expressions and professionals' responses[24,25]a consensus based system for coding patient expressions of emotional distress in medical consultations, defined as Cues or Concerns. Methods: The system was developed by an international group of communication researchers. First, consensus was reached in different steps. Second, a reliability study was conducted on 20 psychiatric consultations. Results: A Cue is defined as a verbal or non-verbal hint which suggests an underlying unpleasant emotion that lacks clarity. A Concern is defined as a clear and unambiguous expression of an unpleasant current or recent emotion that is explicitly verbalized with or without a stated issue of importance. The conceptual framework sets precise criteria for cues and concerns and for whom (health provider or patient, recently translated into the Portuguese version[23]. It allows the coding of emotional expressions (cues/concerns) and health professionals´ responses from units of analysis of the professional-patient interaction patients' expressions were coded into explicit emotional concerns and seven underlying cues (a, b, c, d, e, f, g). Emotional concern was considered any expression of the patient that suggested a negative and explicit emotion (e.g., I am worried/I feel sad/anxious). (Table 1).

Table 1. Description of seven types of emotional cue subcategories (VR-CoDES CC)

Subcategories	Description
Cue a	Verbal expression similar to a concern, but to differentiate them, it is considered the vague and unspecific expressions of the patients (eg strange, more or less, weird).
Cue b	Suggestion of an implicit emotion in which the patient expresses his emotions through metaphors (eg, "I'm about to explode", "it's all useless"), or exclamations to suggest an emotional state. However, if the patient verbalizes feeling useless, the expression is categorized as a concern.
Cue c	Indicates a verbal expression with a physiological character related to emotion (eg sleep, nausea, pain in general. In this case, it is not enough for the patient to verbalize the physical discomfort, it is necessary to emphasize the expression of underlying emotion (eg "no I sleep very well").
Cue d	Indicates that the verbal content is neutral and refers to potentially stressful circumstances or experiences. An example taken from the manual to explain the definition of this cue: "The phrase 'I have cancer' is not coded as a cue if it is part of a dialogue in which the patient simply provides medical information.
Cue e	Indicates repetition of content in which there is emotion and the patient repeats a neutral verbal expression on his own initiative. The coding of this clue depends on a previous equal intervention in which the patient evokes the expression he used again.
Cue f	Coded as a non-verbal cue, in which the patient makes some expression of non-verbal behavior (crying, silence, pause in speech).
Cue g	Reflects an explicit emotion of a concern expressed in the past tense (eg. more than 4 weeks ago or at an uncertain time in life). This clue can be identified whenever the patient alludes to a difficult period in his life, and even to symptoms of treatment.

The following questionnaires were used: 1) sociodemographic and clinical questionnaire: gender, education, marital status, type of cancer, type of treatment, length of treatment; 2) sociodemographic and labor (physicians) questionnaire: age, sex, clinical specialty, time of training and experience in the hospital, training in health communication; 3) an adapted version of the Patient Satisfaction with the Interview Assessment Questionnaire (PSIAQ)[26]. The eight-item questionnaire assesses the degree of patient satisfaction regarding the professional's communication, scored on a four-point scale ranging from 1 (not at all) to 4 (a lot). It is based on the three functions of communication (evaluation, information, and support), and describes the following dimensions: satisfaction with introducing (one item), satisfaction with facilitating and listening (two items), satisfaction with informing and reassuring (three items), satisfaction with clarifying concerns (one item) and global satisfaction with the interview (one item); and 5) Communication Assessment Tool (CAT)[27]: aimed at patients, with 15 questions on the different dimensions of communication and the physician's interpersonal using a 5-point Likert scale.

3. Data analysis

We did a qualitative content analysis of the physician-patient consultation according to VR-Codes[2,23]. The qualitative analysis of the video-recorded consultations used the VR-CoDES methodology, which provides a description of 17 physician responses. These 17 responses were organized into two categories: 1) whether the response refers explicitly or implicitly to the patient's emotion; and 2) whether the answer provides space or reduces space for the patient to elaborate on their emotional problems. To facilitate the coding of patients' emotional expressions, the VR-CoDES divides into 7 clues that can be the patients' implicit expressions and concerns, which is the explicit way that the patient exposes his anxieties and complaints. In addition to measuring these types of emotional expressions, VR-CoDES measures whether the emotional expression was elicited by the clinician (i.e., the clinician asked the patient a question that aroused the emotion) or offered it spontaneously (ie, initiated by the patient). Patients' expressions were related to treatment and cancer.

Descriptive statistical analysis means, standard deviation, cross tab, and Pearson's chi-square (X^2) were performed to compare the cues/concerns (quantity and type) with health professionals' responses (quantity and type of responses). To verify the association between the variables of the VR-CoDES system (349 cues/concerns and physicians' responses), with satisfaction, communication assessment, and treatment time, Spearman correlation analyses were carried out. Statistical analyses were performed using SPSS software version 20.0. Statistically significant p-values were set at $p<0.05$.

The content of the 12 medical appointments was transcribed in full. We used Cohen's kappa analysis of independent judges (K, M, and D), which coded two consultations to assess the agreement between clues/concerns, responses, and respective units of analysis. The coefficients obtained were, respectively, 0.785, indicating excellent agreement and 0.707 indicating median agreement. The coding for the physicians' responses to the cues/concerns is described (Figure 1).

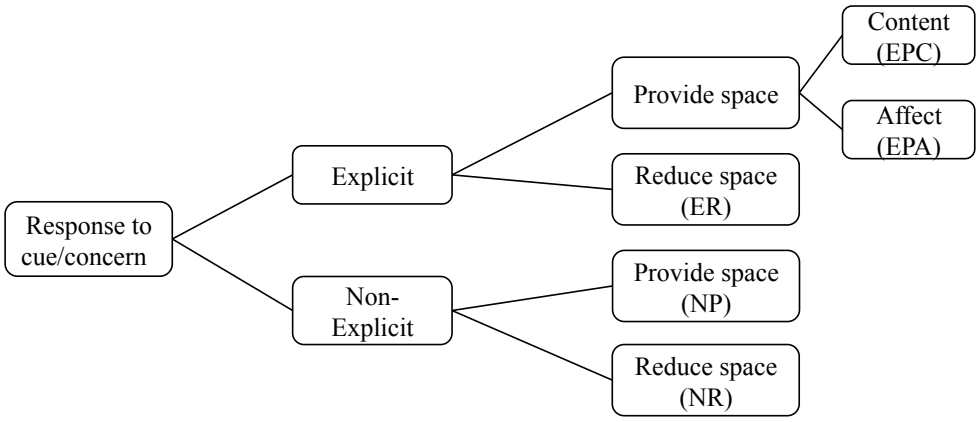

Figure 1. VR-CoDES manual. Response types to cues/concerns.

4. Results

Coding of the consultations

Cross-tabulation and chi-square analyses performed based on the total number of cues\concerns (n=349) with the total number of physicians' responses (n=394). A strong association between the cue (c) and the ER response (Explicit and reducing space) (x^2=6.029; p=0.014) observed, revealing a tendency that, when the patient expressed physical symptoms such as pain, nausea, difficulty sleeping, the physician did not use this explicit with reducing space response. Cue (e), related to the repetition of the content by the patient, was also associated with the physician's ER (explicit and reducing space) response (x^2=5.599; p=0.018), indicating that the number of times the patient expressed neutral emotion and repeated it on his/her initiative was related to the number of explicit with space reduction response by the physician. There was a significant association between the cue (f), related to non-verbal behavior, with the number of NR (non-explicit and reducing space) responses (x^2=14.882 p<0.001), indicating that when the patient expressed non-verbal cues, the physician likely responded in a non-explicit way with space reduction.

Table 2. Descriptive data (frequency, percentage, minimum, maximum, mean and standard deviation) of clues/concerns from patients and interventions by doctors in the 12 consultations (N=394 responses from physicians).

VR-CODES Responses	F	%	Minimun	Maximun	Mean	SD
Concern	14	(3.6%)	0	4	1.33	1.67
Cue a	12	(3%)	0	2	1.00	0.74
Cue b	90	(22.8%)	2	20	7.50	4.91
Cue c	109	(27.7%)	1	25	9.17	6.23
Cue d	72	(18.3%)	0	15	5.92	4.46
Cue e	25	(6.3%)	0	8	2.08	2.78
Cue f	24	(6.1%)	0	10	2.00	2.66
Cue g	03	(0.8%)	0	2	0.25	0.62
NRtotal	111	(28.2%)	1	17	8.83	4.57
NPtotal	67	(17%)	0	12	5.00	3.91
ERtotal	135	(34.3%)	4	23	11.25	7.10
EPtotal	81	(20.3%)	2	26	13.17	7.60
EPC content	69	(17.6%)	1	11	5.58	3.26
EPA affect	12	(3.1%)	0	3	1.00	1.04
PE	219	(55.6%)	5	32	17.00	10.08
HPE	175	(44.4%)	3	22	12.25	5.22
EPAEm	05	(1.3%)	0	2	0.42	0.79
EPAEx	01	(0.3%)	0	1	0.08	0.29
EPAAc	06	(1.5%)	0	3	0.50	0.90
EPCAc	25	(6.4%)	0	4	2.00	1.41

EPCEx	44	(11.2%)	0	10	3.58	3.15
ERAb	07	(1.8%)	0	2	0.58	0.79
ERIa	104	(26.4%)	2	21	8.67	7.17
ERSw	24	(6.1%)	0	7	2.00	1.90
NPAc	26	(6.6%)	0	6	2.17	2.12
NPAi	05	(1.3%)	0	2	0.42	0.67
NPBc	26	(6.6%)	0	6	2.17	2,12
NPIm	08	(2.0%)	0	3	0.75	1.05
NRIa	19	(4.8%)	0	5	1.67	1.67
NRIg	68	(17.3%)	0	9	5.33	2.64
NRSd	26	(6.6%)	0	5	1.83	1.75
Total	394	(100%)				

Note. See figure 1. PE=cue\concern elicited by patient. HPE=clue\concern elicited by the health physician.

Physicians' responses were more explicit and non-explicit with the function of reducing space, offering technical provision on the disease and treatment, such as counseling and content exploration, and few responses recognizing the emotional suffering of patients. In this sense, doctors provided a more detailed response to the patient and tangential to the underlying emotion, adopting behaviors such as silence, distraction, changing the subject, blocking or even ignoring the clue. Table 3 presents some examples of patient cues\concerns and physician interventions in response to these expressions of negative emotions about cancer and treatment in medical consultations.

Table 3. Examples of patients' emotional expressions and physicians' responses (N=12)

Consultation	Cues/Concerns	Physicians response
#01	P: "It's that [points to the exams in the doctor's hands] in the erythrocytes and leukocytes that the family clings to and me... forced me to come here and bother you". cue b HPE	Ph: no, but, but... the amount is very small now actually...ERIa
#02	P: "Look, now, I'm already feeling that I'm losing weight from the disease... By the way, tonight, my leg hurt like this... the bone part here." [Pointing to exam with finger] (cue c PE)	Ph:"Well, you know... the fact that a comrade, anyone, anyone, if he has a lump or a nodule in the subcutaneous tissue is like sleeping with his wallet in his pocket. The next day, you'll be all messed up. It's going to be all bad. Not because the lesion is growing from one day to the next, but because the insistence of the stimulus inside the muscular housing is uncomfortable. What do we have to do from a practical point of view? You have to improve your nutritional capacity" ERIa

Consultation	Cues/Concerns	Physicians response
#03	P: "even though we already know each other, that we know everything, but we are anxious. I get anxious". (concern)	Ph: "Yeah, yeah, but that's what, nowadays, of course, we have to improve a lot in terms of understanding and knowledge about these diseases. These diseases today are many different diseases, not just one disease. And that makes it clear, a psychological impact of that, he's different. Of course, there are people and even then, of course, no one likes to have any disease, right? But these are diseases that we currently divide into many different diseases and in some people will die from it and others will die from it, so you are in the group that will die from it" (ERIa)
#07	P: "My definition is basically the following: I don't want to have surgery and radiation. I wanted to follow up. I would pay the risk of it. And then I was to come back here, and they told me then to come back here with the exams." (cue d PE)	Ph: "You didn't want to do either the radio or the surgery (EPAc) M: Yes, you will have to follow it more frequently." (ERIa)
#09	P: "It's such a wonder for us. It's a great comfort. Why do I trust you so much, doctor?"(Pista d PE)	M: "That's part of the game. If you don't feel safe... I say this, even more so for women, they have an intuition, they look at the doctor and 30 seconds later they say: "it's okay" or not"(EPAEm)

Note: P= Patient; Ph= physician HPE=elicited by the professional; PE=elicited by the patient; Concern=explicit negative emotion or affect; Cue b=use of metaphors; cue c= physiological symptoms; cue d: reference to episodes or circumstances of stress; EPCAc= Content Acknowledgment; ERIa= Information-advice; NPAc= Acknowledgment; EPCEx= Content Exploration; ERSw= Switching; ERAb=Active Blocking; NRIa=Non-explicit advice; NPIm=Implicit Empathy. EPAEm= Empathy. See Figure 1.

Correlations between the descriptions of VR-CoDES CC and VR-CoDES P, Satisfaction, Communication Assessment, and demographic/clinical variables of patients

Spearman's correlation analysis (Table 4) revealed a strong positive and significant correlation between the patient's emotional concern and the physician's NR response (Non-explicit, reduce space) ($r=0.782$; $p<0.001$). Strong positive correlations were found between the number of cues (b) and the NP (non-explicit, provide space) responses ($r=0.712$; $p<0.001$). Cue (c) showed positive correlations with the EP (explicit, provide space) responses ($r=0.684$; $p<0.05$) and EPC (explicit, provide, content) ($r=0.828$; $p<0.001$).

Table 4: Spearman's correlation between variables of VR-CoDES system, total means of the CAT (communication) and PSIAQ (satisfaction) instruments and sociodemographic and clinical variables of patients in medical consultations (N=12)

	NR	NP	ER	EP	EPC	EPA	Treat/ time	CAT
Treat./time	-0.383	0.139	-0.323	**-0.690***	-0.430	**-0.773****	1	0.435
CAT	0.156	0.134	0.092	-0.480	-0.489	-0.058	0.435	1
PSIAQ	-	-	-	-	-	-	-	-
Concern	**0.782****	0.318	0.544	0.347	0.262	0.174	-0.318	-0.118
Cue a	0.427	0.086	0.463	0.438	0.430	0.467	-0.327	0.269
Cue b	0.441	**0.712****	0.307	-0.203	-0.145	-0.329	0.334	0.298
Cue c	0.350	0.452	0.168	**0.684***	**0.828****	0.264	-0.085	-0.241
Cue d	0.544	0.381	**0.745****	0.507	0,.438	0.230	-0.263	-0.111
Cue e	0.334	0.325	**0.605***	0.053	0.073	0.058	0.012	0.465
Cue f	0.301	0.441	0.131	**0.616***	0.403	0.555	**-0.637***	-0.336
Cue g	-0.237	-0.371	-0.057	-0.327	-0.273	-0.226	0.437	0.254

Note. Treatment time = Treatment time with the physician. CAT = Communication Assessment Tool. PSIAQ: Satisfaction Survey. NR = Non-explicit reduces space. NP = Non-Explicit provides space. ER = Explicit reduces space. EP = Explicit provides space. EPC = Provides space for content. EPA = Provides space for affection (emotion). * $p < 0.05$; ** $p < 0.001$

Current data revealed that the more concerns the patients expressed (e.g., fear, sadness, anxiety), the more the physicians responded in an explicit (informative) and space-reduced way. Further, the more the patient expressed underlying emotions (e.g., use of metaphors, exclamations, expressions of uncertainty); the more the physicians responded in a non-explicit manner but provided space for the patient to continue speaking.. Regarding the symptoms disclosed by patients (pain, discomfort, painfulness, nausea, and difficulty sleeping), physicians' responses were more explicit, with more space and attention to the content.

Cue (d) showed a strong positive and significant correlation with the physician's ER response ($r=0.745$; $p<0.001$), indicating that the more expressions on stress episodes by the patients, the more explicit responses with reduced space were provided by physicians. Moreover, cue (e) also correlated positively with the physician's ER response ($r=0.605$; $p<0.05$), which indicated that the more neutral expression cues the patient gave, the more explicit interventions, and with reducing space, they were answered by the physician. Cue (f) showed a positive association with the EP response ($r=0.616$; $p<0.05$), indicating that the physician provided more explicit responses with space to patients who showed non-verbal behaviors. Cue (f) showed a negative correlation with the patient's time of treatment ($r=-0.637$; $p<0.05$), revealing that the shorter the treatment time, the more frequent non-verbal behaviors (crying, silence, silent pauses), were expressed by patients. Further, treatment time was negatively associated with EP ($r=-0.690$; $p<0.05$) and EPA ($r=-0.773$; $p<0.001$) responses when physicians provided more empathic responses and space for patients with less time of treatment. There was no significant correlation between patients' age and the other variables listed in this study.

Physician-patient communication and assessment of patient satisfaction

There was no significant association between the VR-CoDES coding and the communication (CAT) and satisfaction (PSIAQ) assessment instruments. The average of responses to the Satisfaction Survey (PSIAQ) was constant; all patients answered that they were satisfied with the physicians.. Patients' perceptions of physicians' interpersonal and communication skills were evaluated as very good and/or excellent (M=4.88; SD=0.32). All patients answered they were satisfied a lot about the way the physician conducted the consultation, and other aspects, such as providing information, hope, and clear communication.

5. Discussion

How physicians respond to emotional cues and concerns

Explicit responses and reducing space related to a cue of a potentially stressful experience and to a content repetition cue in which emotion repeated on the patient's initiative. The cue on the physiological symptoms was also related to the physician's responses to provide space only for the content. These results were similar to a study[28] which indicate that physicians are more likely to discuss the content of cues on physiological symptoms (e.g., pain, nausea) of cancer patients than other types of it. One explanation for both findings is that patients may feel more comfortable reporting cues of typical cancer symptoms when talking to the physicians, or those physicians investigate more these symptoms, making the medical consultation more technical and less directed to cues on underlying emotional aspects. Physicians realize the existence of emotions during consultations but recognize difficulties that prevent them from communicating with empathy and affection. Further, some physicians avoid or refuse to talk about emotions with the patient[29].

Patients expressed fewer non-verbal behaviors (e.g., crying, silence, silent pauses) as they had longer treatment time. Current data reveal that patients with recent diagnoses tend to express painful experiences and concerns more often than patients with longer treatment times, and may have control of their emotions or do not express as much at the consultation[30,31]). Initial treatment consultations, require the physician to use protocols to communicate bad news and manage emotions with empathic responses. In the initial treatment phase, patients show greater fragility due to uncertainties of the disease, explaining non-verbal cues. As the treatment progresses, patients express more cues on symptoms of the disease and explicit concerns than non-verbal behaviors, suggesting emotional management and greater acceptance of the disease. However, physicians had more ability to respond to these non-verbal cues, providing space for the patient. The physician may also become used to the experience of illness and patient suffering under treatment for a longer time, providing less space for his/her emotional expression. Physicians show that they use strategies such as control and impartiality to deal with patients' emotions, demonstrate little concern for their feelings, and respond even in difficult times[29]. They must control their emotions and often have few tools to deal with emotional reactions during clinical consultations[32]. The expression of underlying emotions,

such as the use of metaphors by patients to express a difficulty or concern about treatment, was strongly associated with non-explicit responses from physicians providing space.

Physicians' responses x treatment time

Patients at the beginning of the treatment were more likely to express themselves with emotional cues of non-verbal behaviors, such as crying, silence, and facial expressions of dissatisfaction, doubt, and discomfort. So, physicians seemed to identify emotional expressions more easily through behavior, providing space for patients to express themselves and being more empathic in their interventions. One of the hypotheses for these data is that physicians avoided exploring emotional concerns, perhaps because they did not identify that complaints related to treatment and illness were emotional demands, or or because they have limits of time on consultation to investigate negative feelings and underlying emotions.

Moreover, there seems to be a taboo to talking about physicians' emotions, how they perceive their feelings and affections and how these perceptions can interfere with care[29]. This type of communication can be challenging for physicians, as they may suppose that providing space to discuss patient concerns can make the consultation longer, become very time-consuming[33], or be unclear about the emotional content of the patient's expressions. These results relate to another similar study in which oncology service physicians and nurses responded differently to patients' emotions[34]. The physicians were more likely to provide space emotional expression when the patient explicitly revealed the concern. The nurses were five times more likely to provide space for tips and concerns than oncologists were at follow-up outpatient visits in the inpatient unit.

Empathic responses

Hope and emotional support, with the provision of space for the affective aspect (emotion) of the cue, were more evident in consultations at the beginning of treatment. Responses of affective empathy were not related to patients who had been on treatment for a longer time, possibly because they did not make their concerns so explicit, making it more difficult for the physician to recognize emotions, thus, providing informative and counseling responses that reduce space. Although it is established in the literature that patients hardly express their emotions in consultations due to the implicit fear that the physician will not validate their emotions[24]. This information diverges from the findings[35], that cancer patients would have more concerns than when not explored by physicians, they could feel dissatisfied with the consultation. Another hypothesis for patients not expressing many explicit concerns in consultations may be because they expect the physician to take the initiative to discuss their emotional distress[36].

Additional training may benefit physicians to recognize negative emotions, even when patients do not express cues and concerns with such clarity[37]. A hypothesis to justify the relationship between more direct and fewer empathic responses by physicians would be that they prefer not to get emotionally involved with cancer patients because of the distress and stress they may go through. Stress is a common symptom in physicians and can be estimated through psychological and physiological

responses when giving bad news[38]. Being aware of the potential impact of the physician's behavior when emotionally engaging with the cancer patient may increase or mitigate the response to stressors[39].

An interesting finding of this study is the high overall satisfaction that the patient answered through the instruments in disagreement with the real satisfaction perceived by the patient in other consultations. The patients answered they were very satisfied with the communication during the consultation and had extreme consideration and gratitude to the physicians who attended them. Another hypothesis is that patients did not realize that their emotional issues were not identified, or that their emotional concerns were not discussed with the physician. Patients, in general, have a positive evaluation of the physician-patient relationship.

However, the possible defense strategies of physicians, without responding to the emotional demands of patients in oncology consultations, may influence patient satisfaction. Defense mechanisms, ignoring, shutting down, giving information advice, switching, postponing, and active blocking may alienate the physician, making them unaware of the importance of providing emotional support[40]. Similar investigations[30] found that most patients were satisfied with the way the physician communicated the cancer diagnosis, despite realizing the physician did not provide space for verbalizing emotional concerns and did not offer referrals to services that could assist their anxieties and fears. The study did not investigate if depressive symptoms increased after a cancer diagnosis or if a medication was used during treatment.

Discussing treatment options, exploring emotions, and offering hope for coping with cancer treatment are important skills that could be used by healthcare professionals. The physician's skills to manage difficult situations may influence the levels of anxiety, fears and negative feelings, favoring a relationship of trust with patients[19,41,42]. The physician could have better explored the underlying emotional cues if he had acknowledged the patient's implicit emotion, providing the necessary emotional support to make the patient feel more comfortable and supported to discuss emotional issues about cancer.

Study limitations

This study is a detailed and meticulous analysis, with a few physician-patient consultations, the findings could not be generalized. In addition, the small sample size may have skewed some data, making it impossible to carry out other statistical analyzes of hhigher effect. The VR-CoDES instrument is still little used in Brazil, which is limited to compare with national studies, considering the cultural difference between countries. Other studies can explore the communication between physicians and medical residents, with patients and family members, and how these professionals respond to emotional demands in the context of cancer.

6. Conclusion

Patients expressed their emotions through complaints about symptoms, expression of underlying emotions, and reference to illness-related stress episodes. The expressions of these cues represent the emotional aspects that need more attention from physicians.

Moreover, physicians used fewer empathic responses when patients had been on treatment for a longer time. The satisfaction with the physician and the assessment of communication were not directly related to the physician's cues and responses, and the patients demonstrated that they were satisfied with the physicians' consultation.

The study allowed an in-depth understanding of aspects concerning physician-patient communication in oncology consultations. Recognizing emotions can help physicians to detect more cues, explore how patients feel about cancer and treatment, providing space for the verbalization of concerns. Moreover, providing emotional support according to empathic skills, and active listening focused on the patient. As a result, patients receive comprehensive support from the physician, feeling emotionally supported, and impacting satisfaction with the treatment, psychological well-being, and quality of life. Despite the expertise of physicians in the present study, it was observed that there are difficulties in recognizing patients' emotions, which reinforces the need for continued training in emotional communication skills in this context. The identification of emotions can help physicians to further explore patients' underlying cues that reveal emotional distress concerning illness and treatment in a less explicit way.

7. References

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