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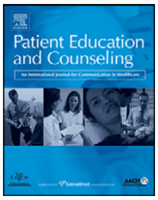

Communication Study

Effects of an interactive tailored patient assessment tool on eliciting and responding to cancer patients' cues and concerns in clinical consultations with physicians and nurses

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ABSTRACT

Objective: To test the effect of Choice, an interactive tailored patient assessment tool (ITPA), on cancer patients' expressed cues and concerns (C&Cs), and clinicians' responses to these C&Cs.
Methods: 97 experimental group consultations, where patients used the Choice ITPA to report their symptoms and problems in preparation to their consultation, were compared to 99 control group consultations. All consultations were audio-taped and coded using the Verona Coding Definitions of Emotional Sequences (VR-CoDES).
Results: We identified 473 cues and 109 concerns with a mean number of 3.0 (SD = 3.2). The most frequent utterance was cue B (45.2%), indicating expression of uncertainty or hope. We found more C&Cs in consultations with the Choice ITPA compared to the control group ($p < 0.01$), and in consultations with nurses compared to physicians ($p < 0.001$). No differences in clinicians' response types in the two groups were found. However, significant differences in response type between nurses and physicians were found.
Conclusion: The Choice ITPA was an effective tool to disclose cancer patients' cues and concerns.
Practice implications: The Choice ITPA proved to be an effective intervention for cancer patients to express more C&Cs, but should be accompanied with communication skills training to potentially produce more patient-centered responses from the clinicians. (ClinicalTrials.gov number NCT00857103.)

1. Introduction

Cancer patients often suffer from multiple symptoms and may experience a number of concerns during treatment and rehabilitation [1]. However, their symptoms and concerns are not necessarily brought to the knowledge and attention of clinicians, such as physicians and nurses [2,3]. The discrepancy between what patients worry about and what providers attend to may result in unnecessary emotional distress [4].

Research on patient-provider communication in cancer care has shown the significance of communication practices and the impact of provider communication behavior on cancer patients' quality of life [1]. It has been shown that clinicians' communication behavior is related to outcomes such as patient satisfaction and anxiety [5–8]. Therefore, a number of papers have called for a more patient-centered communication style [5,7,9,10], defined as a communication style in which the patient's perspective is emphasized in the dialogue, and social, psychological, and emotional aspects are acknowledged as equally important as biomedical aspects [10,11].

Features of both patient and clinician communication behavior may be responsible for a potential disregard of patients' own experiences of symptoms and concerns in many consultations [12]. Firstly, patients are not always explicit about their symptoms and problems, in particular regarding emotional concerns [2,3]. Research indicates that patients rarely express psychosocial problems directly, but convey them as hints [2,12,13]. Such hints are also referred to in the literature as cues or clues, and many different definitions exist [13]. In most definitions, cues are understood as utterances from patients with an underlying emotional meaning that may need further exploration from the care provider [13,14].

Secondly, studies have shown that physicians and nurses tend to avoid asking their patients about concerns, provide little emotional support, and use blocking behaviors such as ignoring issues and switching the subject back to biomedical aspects [12,15,16]. In one study physicians were reported to respond to only 10% of the empathic opportunities presented by patients [15]. Another study

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revealed that only 25% of providers engaged in discussions regarding psychosexual concerns, even if all but one agreed that this was an important issue to discuss [17]. So far, among the increasing number of studies which focus on communication, only a few studies were conducted with and by nurses. In one of the few exceptions, nurses were found to document emotional issues without addressing them during consultations [16]. Nurses expressed little confidence in their own communication skills due to the fact that they lack proper training and described themselves as passive in consultation with cancer patients expressing their worries [18]. To date, we know little about differences or similarities in physicians' and nurses' communication styles.

Given the shortcomings described above, both patients and care providers could benefit from communication support that can help overcome two barriers; patients' unclear presentation of concerns, and clinicians' lack of noticing and responding to the cues and concerns (C&C) that patients convey.

A number of approaches have been applied to promote effective communication about symptoms and concerns in cancer care. One approach is to encourage patients' information seeking by the use of a prompt sheet, which is a structured list of questions [19]. Another approach is using computerized assessment systems in preparation to consultations. An example is the Choice interactive tailored patient assessment (ITPA) used in this study, developed by the second author (CR). It is designed to assist nurses and physicians in eliciting and addressing patients' symptoms, concerns, and care priorities from the patients' perspective and to support the clinician in providing more patient-centered care [20]. Previous studies testing the Choice ITPA showed significant positive effects on patient-centered care and patient outcomes [21–23]. In a recent repeated measures RCT with lymphoma and leukemia patients, where patients in the experimental group had used the Choice ITPA prior to their in- and outpatient consultations, and nurses and physicians had the resulting assessment summaries available, significantly more symptoms and problems were addressed in patients' charts, and patients had significantly less symptom distress and need for symptom management support during treatment and rehabilitation [24]. Therefore, the natural next step was to investigate the mechanisms by which these effects may have occurred, especially, how the Choice ITPA affects patient-provider communication.

Thus, the purpose of this study was to [1] test effects of the Choice ITPA on the number and types of cues to negative emotions and emotional concerns expressed by cancer patients during in- and outpatient consultations with nurses and physicians; and [2] explore the effect of the Choice ITPA on nurses' and physicians' responses to patients' C&Cs.

We hypothesized that when patients used the Choice ITPA in preparation to in- and outpatient consultations as part of routine practice, and nurses and physicians had the resulting assessment summary sheet available during the consultations, patients would express significantly more C&Cs during the consultation. We also investigated if nurses and physicians provided more patient-centered responses when they had the assessment summary from the Choice ITPA available during the consultation. It is important to point out that this paper only presents findings from the emotional part of the consultations. However, the Choice ITPA aims to improve patient care by addressing all of the patients' experienced symptoms, and these results will be presented in a separate paper.

2. Methods

2.1. Design

This study used a quasi-experimental design where the control group was completed first, prior to the implementation of the Choice ITPA into routine practice and subsequent data collection in the experimental group. Due to the possibility that clinicians might alter their communication style as they became familiar with the Choice intervention, we decided to complete the control group first. Because the participating wards implemented the Choice ITPA into routine practice for all patients, randomization was not possible.

2.2. Sample and setting

A convenience sample of adult patients with leukemia, lymphoma, testicular cancer, or myelomatosis at two hospital wards and two outpatient clinics at a University hospital in Oslo, Norway participated. Patients were eligible for inclusion if they were: 18 years or older and had adequate cognitive and language skills to read and fully comprehend the information given about the content of participation and the measurements used. Patients were admitted for initiation of or continuing treatment of leukemia, lymphoma, multiple myeloma, or testicular cancer, or for outpatient follow up within a year of treatment. The diagnoses were chosen for the reason that symptom specifications in the Choice ITPA are developed for these specific cancer types and that the participating wards were specialized for patients with these diagnoses. The 5 physicians and 19 nurses who consented to participate were likely to be employed at the ward for the entire duration of the study in order to reduce the risk of personal communication skills influencing the results.

2.3. Sample size estimation

Based on a power of 0.8 and an alpha of 0.05 (two-tailed), we estimated a required total sample size of 200 subjects (100 per group) with an effect size of 0.4. The effect size was based on the pilot study of the RCT testing the effects of the Choice ITPA on symptom distress [24].

2.4. Intervention

The intervention in this study was that patients completed an assessment on the Choice ITPA, either prior to one of their outpatient consultations in the waiting room, or as in-patient prior to their admission interview with a nurse. A copy of the resulting assessment summary was given to the patient and physician or nurse to be used in the consultation (example given in Fig. 1).

The Choice ITPA aimed to improve communication between cancer patients and their care providers in two ways; prepare patients for the consultation, and help care providers elicit patients' symptoms and problems from their perspectives. On a touch pad computer, patients indicate their problems, degree of distress, and prioritize the need for help from a care provider. The symptoms and problems in Choice are categorized in 4 main categories; 'physical symptoms and discomfort', 'pain', 'things that are difficult to do', and 'thoughts, feelings, and social relations'. Each of these categories has several subcategories. Clicking a subcategory, e.g. 'mood', will trigger a subset of more specific symptom descriptions, e.g. 'anxiety', 'sadness', 'anger', etc. The system then automatically creates a list of the selected symptoms where patients are asked to scale distress of the symptoms from 0 to 4 (not bothersome to extremely bothersome) and prioritize their need for help with that symptom on a scale from 0 to 10 (not important to extremely important). The assessment summary sheet (Fig. 1) was given to the patient and the care provider and was used in the intervention group in this study as a supplement to the standard admission consultations with nurses and the outpatient consultations with physicians to assist clinicians to address patients' self reported symptoms and their priorities for care. The detailed development