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Research paper

In which context is physician empathy associated with cancer patient quality of life?

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ABSTRACT

Objective: In cancer settings, physician empathy is not always linked to a better patient emotional quality of life quality of life (eQoL). We tested two possible moderators of the inconsistent link: type of consultation (bad news versus follow-up) and patient emotional skills (emoSkills, i.e., the way patients process emotional information).
Methods: In a cross-sectional design, 296 thoracic and digestive tract cancer patients completed validated questionnaires to assess their physician empathy, their emoSkills and eQoL. Moderated multiple regressions were performed.
Results: In follow-up consultations, physician empathy was associated with a better eQoL in patients with low or average emotional skills. Those with high emotional skills did not benefit from physician empathy. Their eQoL was nonetheless very good. In bad news consultations, the pattern was reversed: only patients with average or high emotional skills benefited from physician empathy. Those with low emotional skills were not sensitive to it and presented a poor eQoL.
Conclusion: Medical empathy is important in all consultations. However, in bad news consultations, patients with low emoSkills are at risk of psychological distress even with an empathetic doctor.
Practice implications: Accordingly, physicians should be trained to detect patients with low emoSkills in order to refer them to supportive care.

1. Introduction

Physician empathy can be defined as the ability to understand the experiences, concerns and perspectives of patients coupled with a capacity to communicate this understanding to patients in a warm and compassionate manner [1]. According to popular belief, physician empathy is vital for cancer patients to maintain an optimal emotional quality of life (eQoL). Physician empathy is believed to help patients to avoid despair and to maintain hope and a positive outlook in the face of cancer. However, the scientific question of whether physician empathy is related to better patient outcomes has not yet been resolved. In a literature review, the positive effect of physician empathy on cancer patient eQoL was proven in half of the reviewed studies only [2]. Therefore, the effect of physician empathy on patients could be explained by hidden factors (i.e. moderators). Two moderators seemed of particular interest.

First, it may be that physician empathy is beneficial for certain types of patients only, depending on their emotional skills. Emotional skills refer to the ability to address and process emotional information. They encompass the identification, understanding, expression and regulation of one's emotions and those of others [3]. Social support has demonstrated a positive effect only in

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the receivers of support who express their emotions [4], correctly process the supportive message [5] and regulate their emotions [6]. In the same way, patients may benefit from physician empathy only if they have these same emotional skills. This pattern of results has also been found in breast cancer patients receiving emotional support on the Internet. The supportive messages received online had positive effects only in women with high emotional skills [7]. If patients do not possess the emotional skills to process physician empathy as a supportive resource fostering positive coping, physician empathy can be useless or even wrongly perceived. For example, one study revealed that the same statement on the part of a physician was interpreted by some patients as caring while others interpreted it as uncaring [8], showing strong patients' variability in the processing of the same message.

A second possible moderator accounting for why empathy may or may not be beneficial for patients could be the type of consultation in which empathy is assessed. If the effect of empathy is tested in a consultation with a light emotional load, there is less reason to see an effect of physician empathy. Conversely, in an emotionally charged consultation such as a "bad news" consultation, the effect of empathy could be stronger since empathy becomes highly expected and important in this context. It has been shown that, when patient distress is high, physician empathy results in better patient satisfaction and less distress, whereas empathy is not related to patient outcomes in non-distressed patients [9,10]. These studies support our hypothesis. However, further research is warranted regarding the role of consultation types, as data are lacking on this topic. Furthermore, these studies [9,10] did not consider any patient characteristics in processing physician empathy.

To summarize, our goal was to understand the conditions in which physician empathy could be beneficial for patients' emotional eQoL in cancer settings. The present study is the first to adopt a new perspective on physician empathy. In previous research the beneficial effect on physician empathy on patient outcomes was placed solely on the level of physician empathy as if they were only physicians in patient-physician consultations and as if only physician empathy (its level and nature) was important to patient outcomes The research into empathic opportunities or emotional cues also focuses on physicians' behaviors a lot. It often examines the number and nature of physicians' responses to patients' emotional cues [11,12]e.g. 11,12], but does not link the physician answers to patient outcomes considering interactions between physicians and patients.

We assume on the contrary that physician empathy should be studied in interaction with patient emotional skills and the type of consultation; this should explains patient eQoL as follows:

Hypothesis 1. Regardless of patient emotional skills, physician empathy will not be associated with patient eQoL in follow-up consultations (i.e. without bad news), as this type of consultation is not supposed to be emotionally charged;

Hypothesis 2. In bad news consultations, physician empathy will improve the eQoL of patients with good emotional skills, as these skills are necessary to process this empathy and benefit from it.

2. Methods

2.1. Design and procedure

The study was carried out using patient self-reported questionnaires in a cross-sectional design. Physicians working at the thoracic and digestive cancer departments of the University of Lille (France) and at University Cancer Center Leipzig (Germany) were invited to participate in the study. They proposed the study to patients meeting the inclusion criteria (see below) at the end of a consultation. Patients were given a written detailed study description, informed consent form and the questionnaires. If they agreed to participate, they signed the informed consent and had one week to complete the questionnaires and return them to the research team in a prepaid envelope provided.

The study protocol was approved by the French national advisory committee for the processing of information in health research (approval number 14.545) and by the Ethics committee of the Medical Faculty of the University of Leipzig (AZ 409-15-16112015).

2.2. Participants

Inclusion criteria for physicians were: dealing with thoracic or digestive tract cancer patients in an outpatient hospital setting. Thoracic and digestive tract cancers were chosen because of the high prevalence of treatment failure and bad news consultations in this type of cancer. Inclusion criteria for patients were as follows: aged $\geq$18 years old, aware of the cancer diagnosis and a WHO performance status $<$4. Exclusion criteria were as follows: a pending therapeutic strategy and a psychiatric disorder altering reasoning and judgment reported in the medical file. Cohen's sample size recommendation for an alpha level of 0.05 (2-tailed), 90% power, 17 predictors, and an anticipated small-medium effect size of 0.10 (f^2) in a multiple regression model is 262 participants [13]. As we anticipated 10% of missing data, our aim was to recruit 295 patients.

2.3. Measures

Patient perception of physician empathy (empathy) was measured using the Consultation And Relational Empathy (CARE) measure, a 10-item 5-point Likert scale providing an overall score of empathy [14,15] with a higher score meaning higher empathy. Items of the scale deal with the patient's perception of physician listening, respect, clear explanations and information provision, whether the physician (from the patient's point of view) fully understand his/her concerns, and shows care and compassion, e.g. "the doctor fully understood my concerns" and "the doctor was interested in me as a whole person". Cronbach's alpha (α) was 0.95 in our sample.

Patient emotional skills were assessed using the Short-Profile of Emotional Competence (S-PEC) scale [3], a 20-item 5-point Likert scale providing two scores of emotional skills, one for the identification of emotions, $\alpha = 0.76$, e.g. "When I feel good, I can easily tell whether it is due to being proud of myself, happy or relaxed", and the other score for the understanding, expression and regulation of emotions, $\alpha = 0.70$, e.g. "I don't always understand why I respond in the way I do" (reversed), "It is easy for me to explain my feelings to others" or "I find it difficult to handle my emotions" (reversed). Higher scores represent higher emotional skills.

Patient emotional quality of life (eQoL) was assessed using the emotional dimension of the Functional Assessment of Cancer Therapy- General (FACT-G), a 6-item 5-point Likert scale [16,17]. Higher scores represent a *worse* quality of life. Examples of items are "I feel sad", "nervous", "I worry about dying", and "I am losing hope in the fight against my illness".

The type of consultation was reported by the physician at the end of the consultation according to the following rule: if the patient was informed of cancer recurrence or a change in therapy due to cancer progression or the end of active treatment, this was

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