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Medical decision making

When do cancer patients regret their treatment decision? A path analysis of the influence of clinicians' communication styles and the match of decision-making styles on decision regret

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ABSTRACT

Objective: To test the influence of physician empathy (PE), shared decision making (SDM), and the match between patients' preferred and perceived decision-making styles on patients' decision regret.
Methods: Patients with breast or colon cancer ($n = 71$) completed questionnaires immediately following (T1) and three months after a consultation (T2). Path analysis was used to examine the relationships among patient demographics, patient reports of PE, SDM, the match between preferred and perceived decision-making styles, and patient decision regret at T2.
Results: After controlling for clinician clusters, higher PE was directly associated with more SDM ($\beta = 0.43$, $p < 0.01$) and lower decision regret ($\beta = -0.28$, $p < 0.01$). The match between patients' preferred and perceived roles was negatively associated with decision regret ($\beta = -0.33$, $p < 0.01$). Patients who participated less than desired reported more decision regret at T2. There was no significant association between SDM and decision regret ($\beta = 0.03$, $p = 0.74$).
Conclusion: PE and the match between patients' preferred and perceived roles in medical decision making are essential for patient-centered cancer consultations and treatment decisions.
Practice implications: Ways to enhance PE and matching the consultation style to patients' expectations should be encouraged.

1. Introduction

Communication in cancer care is challenging because a cancer diagnosis evokes distressing emotional responses in both clinicians and patients [1,2]. In addition to the psychologically demanding diagnosis of cancer, patients are confronted with information about their prognosis, complex treatment options, and numerous difficult treatment decisions that must be made [3,4]. Because decisions in cancer care can lead to adverse outcomes, the experience of decision regret following treatment is not unusual [5].

To reduce decision regret, the affective and relational aspects of communication need to be integrated with the instrumental and technical aspects of communication because patients require not only medical information and instruction but also emotional support and reassurance [6–10]. Affective or relational communication is linked to physician empathy (PE) [11], which implies the ability to understand the patient's situation, perspective, and feelings; to communicate that understanding and check its accuracy; and to act on that understanding to help the patient [12]. Prior research has demonstrated that a physician's expression of empathy positively influences both the communication climate and the physician–patient relationship [2,8,13]. The creation of an environment of mutuality and trust is critical for a better understanding of the patient's needs and the facilitation of effective treatment decision making [11,12,14]. Strategies that convey PE are helpful both in preventing conflicts and in promoting optimal treatment decision making in both active and passive

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patients [18]. Accordingly, such strategies are appropriate for reducing patients' decision regret [13,15,16].

When several treatment options are deemed clinically equivalent (preference-sensitive situations), shared decision making (SDM) is recommended [17] because it has been repeatedly associated with positive patient outcomes [18–21]. In particular, the provision of information about the potential risks and benefits of treatment alternatives and the clarification of patient values inherent in the concept of SDM should reduce both unrealistic outcome expectations and decision regret [22]. Evidence suggests that patients' preferences for involvement in treatment decision making vary, with most patients preferring an active role and some patients preferring to be passive [23,24]. Although patient preferences vary, some studies suggest that active participation in treatment decision making is generally associated with less distress and less regret [23], independent of prior preferences [25–27]. However, a consistent finding is that a mismatch in treatment decision making regularly occurs because physicians' perceptions are often inconsistent with patients' preferences [24,26,28]. Likewise, numerous studies cast doubt on the notion that increased participation is beneficial regardless of patients' preferences [29–31] because a mismatch between patients' role preferences and their perceived role in treatment decision making may have adverse consequences [26,28,32–35]. For example, providing detailed information or imposing a choice may lead to anxiety and decisional conflict for patients who prefer a passive role [36]. Thus, it seems to be important for physicians to adjust their consultation style to the patient's preferred decision-making style [2,28] because successfully tailoring participation to patient preferences may have a positive impact on various outcomes [26,37], including decision regret [26,29,38–40].

Most of the existing research on physician–patient communication includes cross-sectional studies that do not establish causal links between measures and health outcomes [41,42]. In addition, the effectiveness of physician-patient communication has mostly been assessed on short-term or intermediate outcomes, such as patient satisfaction, treatment adherence, and understanding of health information [18]. There is little literature on the relationship between specific communication behaviors and long-term outcomes [8]. With respect to short-term outcomes, Venetis et al. [10] have recently shown in a meta-analysis that a physician's affective and instrumental communication behavior, but not his or her participation behavior, increase patient satisfaction. However, comparatively little research has been conducted on the relative impact of instrumental and affective/relational communication on decision regret as a long-term patient outcome [10,18]. To the best of our knowledge, the only structural analysis of instrumental and relational communication behaviors, patient communication involvement, and patients' decision regret three months after the consultation has been published by Step et al. [8], who have shown that oncologists' instrumental and relational communication improved patient communication involvement, in turn decreasing patients' decision regret. However, because Step et al. [8] did not investigate the match between patients' preferred level and their perceived level of participation in treatment decision making, it is unclear whether and to what extent preference-matching can be established by instrumental and relational communication behaviors.

Given the scarcity of studies establishing causal relationships between communication behaviors and long-term outcomes, the purpose of this study was to explore the relative contributions of patient-perceived PE and SDM to the intermediate outcome of the match between patients' preferred and perceived roles on the one hand and the long-term outcome of patient decision regret on the other hand. To this end, a physician-patient communication model examining the structural associations among SDM (decisional communication), PE (relational communication), the match between patients' preferred and perceived roles in decision making, and patient decision regret at a three-month follow-up was developed (see Fig. 1). In line with previous research, the model predicts that less decision regret results from (1) high levels of PE, (2) high levels of SDM, and (3) a match between patients' preferred and perceived roles in decision making. Moreover, PE was expected to improve both SDM and preference-matching because physicians showing high levels of empathy are by definition more likely to recognize patients' needs and preferences [43]. In addition, eliciting the patient's preferred role in decision making is one of the tenets of SDM [44,45], which highlights the need to explicitly engage patients in the discussion of decision preferences. It was therefore hypothesized that a better match between patients' preferred and perceived roles should also result from higher levels of SDM. Thus, the model posits that the match between patients' preferred and perceived roles mediates the relationship between SDM and decision regret and between PE and decision regret.

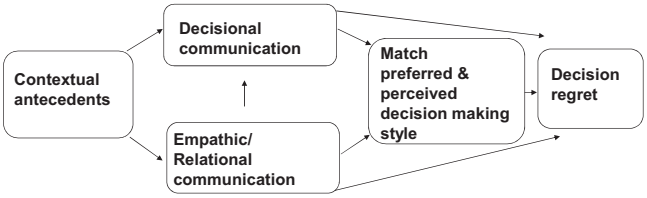

Fig. 1. The hypothesized communication model.

2. Methods

2.1. Participants

Overall, 160 patients with breast or colon cancer and 86 physicians participated in the study. The available demographic information on the participants is reported in Table 1. Eighty-nine participants were not selected for analyses, either because they did not reach the main outcome of this study at three-month follow up ($n = 68$) (T2) or because they failed to provide data on at least one scale measured at T1 in the model ($n = 21$). There were no significant differences in the sociodemographic characteristics between those who were selected for analysis and those who were not selected for analysis. Of the 71 patients available for analysis, 56 (79%) were women. The participants' ages ranged from 25 to 87 years ($M = 63.68$; SD = 13.59). The physicians' ages ranged from 26 to 58 years ($M = 37.90$, SD = 8.14), and their professional experience ranged from six months to 30 years ($M = 10.18$, SD = 7.48). Seven of the 20 remaining physicians (35%) were female.

All of the patients were aware of their cancer diagnosis. The Institutional Review Board of the University of Heidelberg and the University of Freiburg, Germany approved the study. Written informed consent was obtained from all participants prior to their participation.

2.2. Design and procedures

This study was part of a prospective parallel-group cluster-randomized controlled trial involving patients with either breast cancer or colon cancer (for a detailed description of the trial, see Ref. [46]). The primary goal of the larger trial was to evaluate the efficacy of an SDM and decision aid use training for physicians. The physicians in the intervention group (IG) participated in a 12-h SDM training program. The physicians in the control group (CG) did not receive any intervention during the study; they were invited to participate in the training after the trial. The patients completed a

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