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The value of physicians' affect-oriented communication for patients' recall of information

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ABSTRACT

Objective: The aim of this paper is to discuss experimental research investigating the effect of physicians' affect-oriented communication on patients' recall of information provided during medical consultations, with a special focus on the mediating role of emotional stress in that relation.
Methods & results: A search of experimental research literature was conducted, resulting in six research articles experimentally investigating the relations of interest, all using a video-vignettes design. A summary of results is provided and discussed.
Conclusions: The research reviewed in this paper provides evidence for the causal and mostly positive influence of several forms of affect-oriented communication on patients' recall of medical information. Results indicate that reducing emotional stress may not be the underlying mechanism through which physicians' communication influences patients' recall.
Practice implications: The obtained insights will help educators to teach evidence-based medical communication skills and to scientifically validate the importance of these skills for patients' recall of information. Advancing physicians' communication skills with evidence-based training will contribute to the professionalism that is the hallmark of good quality of care.

1. Introduction

Receiving medical information from their physician is important for patients for several reasons. It can reduce their uncertainty by helping them to foresee procedures, symptoms and side effects of disease and treatment, thereby improving psychological functioning and adaptation to illness [1,2]. Information also supports patients' coping as it enables them to take action when possible and adapt when intervention is impossible, thereby enhancing control [3]. Moreover, information about available treatment options and their implications allows patients to be involved in decision making [3,4]. Medical information also supports adherence to treatment regimens [5,6] and beneficial health behaviors [7,8]. Furthermore, patients generally want to receive detailed medical information [9–11], especially about the prognosis, the disease itself, the treatment and side-effects [12].

Unfortunately, patients' recall of, i.e., their ability to remember, medical information provided by their physicians is generally poor. Percentages of forgotten information vary from 40 to 80% [4,7]. Most research is done within the cancer care domain, and shows that approximately half of the provided information is not remembered by patients [13,14]. Especially information about treatment options, goals, side effects and procedures is not well remembered, when compared to information about the cancer diagnosis [14,15]. For example, among patients newly diagnosed with lung cancer, 92% accurately recalled the information about their diagnosis, compared to 49% who correctly recalled the goal of proposed treatment [15]. In view of the loss of considerable amounts of information, it is not surprising that cancer patients report unfulfilled information needs [9,12]. Uncovering the mechanisms that lead to limited recall of medical information may provide insights that help to improve recall and inform physicians about communication behaviors that can optimize information transfer to patients.

This paper focusses on one of the possible mechanisms that may underlie limited information recall in patients, i.e., the relationship between emotional stress and memory performance. Emotional stress is defined as the increase in self-reported negative feelings and/or physiological arousal caused by an

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emotional stimulus (definition by authors). Although the relationship between emotional stress and memory performance is complex [16,17], evidence from mostly animal studies suggests an inverted U-shaped relationship, in which memory increases with increasing stress levels to an optimal point, and beyond this point memory performance decreases with higher stress levels [18]. Highly stressful situations hence induce poor memory [19]. This fits with the finding that, in patients, receiving a bad diagnosis and/or poor prognosis – which likely leads to high levels of emotional stress – leads to a worse overall recall of information [14]. The fact that the bad news itself is relatively well-remembered in these situations as compared to other, additional information, can be explained by the attention-narrowing hypothesis. This hypothesis states that individuals in stressful situations will focus on the most threatening or so-called 'central' information, at the cost of additional or so-called 'peripheral' information, to which they will pay relatively less attention [20]. Consequently, if physicians would be able to reduce patients' emotional stress during consultations, they might improve patients' information recall. This will particularly concern additional, yet very relevant, information about for example treatment procedures and side effects.

This paper aims to summarize and critically discuss findings from empirical studies that investigated the causal relationship between physicians' communication during consultations and patients' recall of information, with a special focus on the mediating role of emotion reduction in this relation (see Fig. 1). To this end, we discuss experimental studies that tested the effects of physicians' affect-oriented communication, i.e., communication behaviors expressing care for, and affective engagement with the patient.

2. Methods

Following the scoping study methodology [21], databases (Pubmed, PsychInfo and Google scholar) were thoroughly searched to identify publications on the relationship between physicians' communication and patients' information recall, employing combinations and variations of the keywords: 1) affective/affect-oriented communication; physician/oncologist communication/behavior; physician-patient relations; and 2) (patient/information) memory/recall. This was combined with reference lists reviewing of relevant articles to identify any further relevant literature; and the inclusion of findings of a recent study conducted by the authors [22]. Research articles based on original data collected within an experimental study design were selected. This process yielded 13 research articles describing 12 experimental studies investigating the impact of physicians' communication on patients' information recall. These articles could be roughly divided into two categories; with one exception [23]. Firstly; articles investigating the effect of cognition-oriented communication behaviors; i.e.; structuring [24]; categorizing [25]; organizing [26]; forecasting and framing [27]; and providing argumentative support [28,29]. Secondly; articles testing the effect of affect-oriented communication behaviors [22,30–34]. This second category will be the focus of this paper; leaving six articles included for review.

These were all video-vignette studies investigating physician-patient communication within the oncology context. A video vignette is a video recording of a situation in which actors mimic a scripted doctor-patient consultation [35,36]. In such video-vignette design, participants are called analogue patients. They can be either disease-naïve participants (i.e., individuals without a disease history) or (former) patients, instructed to watch the video vignette while imagining themselves in the video patients' situation [37]. The medical content, the environment, and the (interaction between) characters are exactly identical across video-vignette conditions, except for specific communication elements of interest. These elements, e.g., the physician's response to emotions, are manipulated to vary across video-vignette versions, which allows systematic testing of the effects of these specific communication behaviors. Most studies reviewed for this paper compared one enhanced communication condition to one standard communication condition.

3. Results

3.1. The (total) effect of affect-oriented communication on information recall

Study characteristics, including the specific behaviors manipulated to create enhanced affect-oriented communication

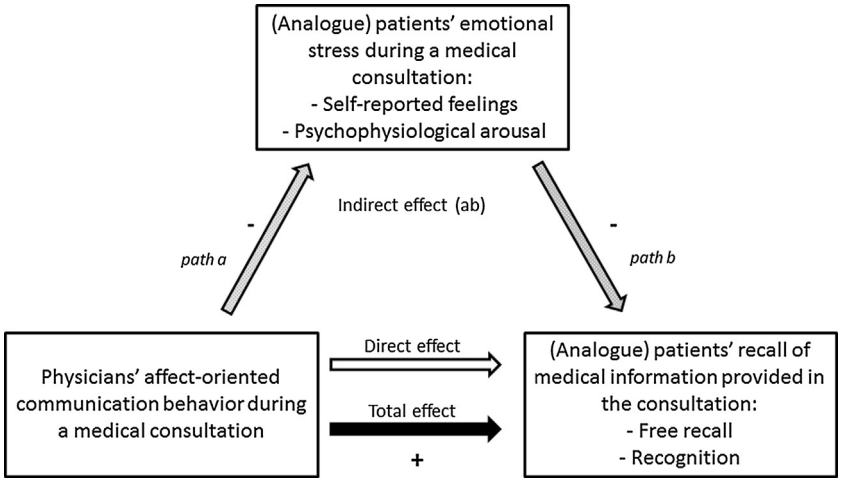

Fig. 1. The hypothesized model.
Notes: Without accounting for emotional stress, affect-oriented communication is expected to positively impact information recall, which is called the total effect. The indirect effect is the mediation effect, calculated by combining path a with path b. Path a: affect-oriented communication is expected to reduce emotional stress. Path b: emotional stress is expected to negatively influence information recall. The direct effect is calculated by predicting information recall based on communication while controlling for emotional stress. Emotional stress is a indicated as a (partial) mediator of the effect of affect-oriented communication on information recall if the direct effect is smaller than the total effect, and path a and b are demonstrated [45].

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