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Communication Study

Patient satisfaction with physician errors in detecting and identifying patient emotion cues☆

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ABSTRACT

Objective: Previous research has examined physicians' ability to respond to or identify the type of emotion cues. Yet in physician–patient interactions, identification and response are preceded by the ability to *detect* whether an emotion cue has occurred. This research assesses consequences of emotion detection errors for patient satisfaction.

Methods: Participants responding to an online survey read one of six randomly assigned descriptions of a physician–patient interaction varying on: whether the patient presented an emotion cue; whether the physician detected an emotion cue; and whether the physician correctly identified the cue. Participants then rated satisfaction with the physician.

Results: Satisfaction was highest when the physician correctly detected the patient's emotion cue and lowest when the physician failed to detect the patient's emotion. Failing to detect the emotion cue had lower satisfaction than other emotion processing errors, including falsely detecting an emotion cue that was not there or incorrectly identifying the type of emotion.

Conclusions: Emotion cue detection has implications for patient satisfaction distinct from emotion identification.

Practice implications: Results suggest it may be better for physicians to incorrectly identify than miss an emotion. Training for healthcare providers should consider incorporating emotion detection.

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1. Introduction

Central to patient-centered care is the ability to detect, accurately identify, and appropriately respond to patient emotions [1–6]. Emotion cues are verbal or nonverbal hints to a patients' underlying state, which are often ambiguous [7]. Providers' ability to accurately identify emotion cues is associated with increased patient satisfaction and rapport [8,9] and failure to respond to emotion cues can lead to misdiagnosis, lower recall, incorrect treatments, and poorer health outcomes [6,10]. However, previous research has almost exclusively looked at either the identification of the type of patient emotions (Was the patient happy or sad?) or response to patient cues (Do providers respond and how? How appropriate was their response?).

In research paradigms to assess emotion identification, physicians are presented with an emotion cue and asked to judge whether the patient is angry, sad, happy, etc. [8,11]. Emotion cues are selected by researchers; physicians are made aware the stimuli contain an emotion and do not have to detect when the emotion cues occur. In research paradigms to assess emotion response, researchers define moments in the encounter when a patient presents an emotion and assess the physician's response to these moments [12–14].

Yet in everyday interactions, including those between a patient and physician, the ability to accurately identify the type of emotion and the ability to appropriately respond are typically preceded by the ability to *detect* that an emotional cue has occurred. In fact, if the emotion cue is never detected, then the ability to accurately identify or respond to the emotion never comes into play. Patients do not say, "Hey doctor, I'm feeling really emotional right now. Do you know whether I'm angry or sad?" Emotion cues are often ambiguous and subtle [7,15–17]. Physicians must detect the emotion cue before identifying the type of emotion and before appropriately responding.

Research paradigms defining emotion cues using coding criteria or measuring physicians' accuracy on standardized tests have provided valuable insights into the consequences and correlates of emotion identification and emotion response. However, by using

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experimenter-defined emotion cues, such research does not measure detection accuracy, defined as the ability to detect whether an emotion cue is present or not [18]. This can have important implications. For example, when research says over 70% of patient emotion cues are missed by physicians [19], it is unclear whether missed responses were due to physicians detecting an emotion cue and choosing not to respond, or failing to detect the cue in the first place. No research has examined the consequences for detecting an emotion that is not really there (a false alarm) or compared emotion detection errors, such as a false alarm, to the other errors in emotion detection and identification. The present research begins to assess the consequences of errors in emotion cue detection and identification on patient satisfaction through written descriptions of physician–patient interactions.

1.1. Emotion cue processing

To organize possible errors, a model was developed of the three components of emotion cue processing: (1) emotion *detection* accuracy, (2) emotion *identification* accuracy, and (3) emotion *response* accuracy. The Detection, Identification, and Response to Emotion Cue (DIREC) model (Fig. 1) was created for the present research to provide a conceptual framework of the pathways through which physicians' emotion cue processing can influence outcomes.

The first component in the model, emotion detection accuracy, is simply noticing the emotion cue. To be accurate, physicians must use patients' behavior to correctly detect an emotion cue that is occurring or correctly detect when emotion cues are not occurring. A physician can be accurate at detecting emotion, regardless of the ability to label or identify its meaning as a certain type of emotion.

After the emotion cue is detected, the second component in emotion processing is the identification of the type of emotion. This is where the physician must label the type of emotion, for example to decide whether a patient who seems upset is feeling anger, sadness, or fear. Emotion identification may also include distinguishing the meaning of an emotion cue. For example, deciding whether a patient is upset with something at home or frustrated with the care they are receiving.

The third component of the DIREC model is emotion response. Many studies have addressed the most effective responses to patient emotions [6]; therefore, the present research did not address emotion response and assesses the consequences of errors in detection and identification only, holding response constant.

1.2. Objectives of the present research

The consequences of errors in emotion detection and identification for the physician–patient relationship are largely unknown. Physicians report a desire to respond to patients' emotion cues [20]. However, they may experience anxiety or lack confidence when it comes to ambiguous cues, perhaps because they receive relatively little explicit instruction on how to process patient emotions [21]. For instance, it would be beneficial for a physician who was not sure whether a patient was showing emotion to know if it is better to fail to detect an emotion cue that was there or respond to a cue that was not there (a false alarm). Or is it better to fail to detect an emotion cue altogether, or to detect the emotion cue but inaccurately identify the type of emotion? Results could provide preliminary guidance to physicians through the sometimes murky path of processing patient emotions.

The goal of this research was to experimentally test the consequences of errors in emotion processing on patient satisfaction. Satisfaction was compared for vignettes which randomly varied detection accuracy and identification accuracy, representing the six pathways through the DIREC model (Table 2).

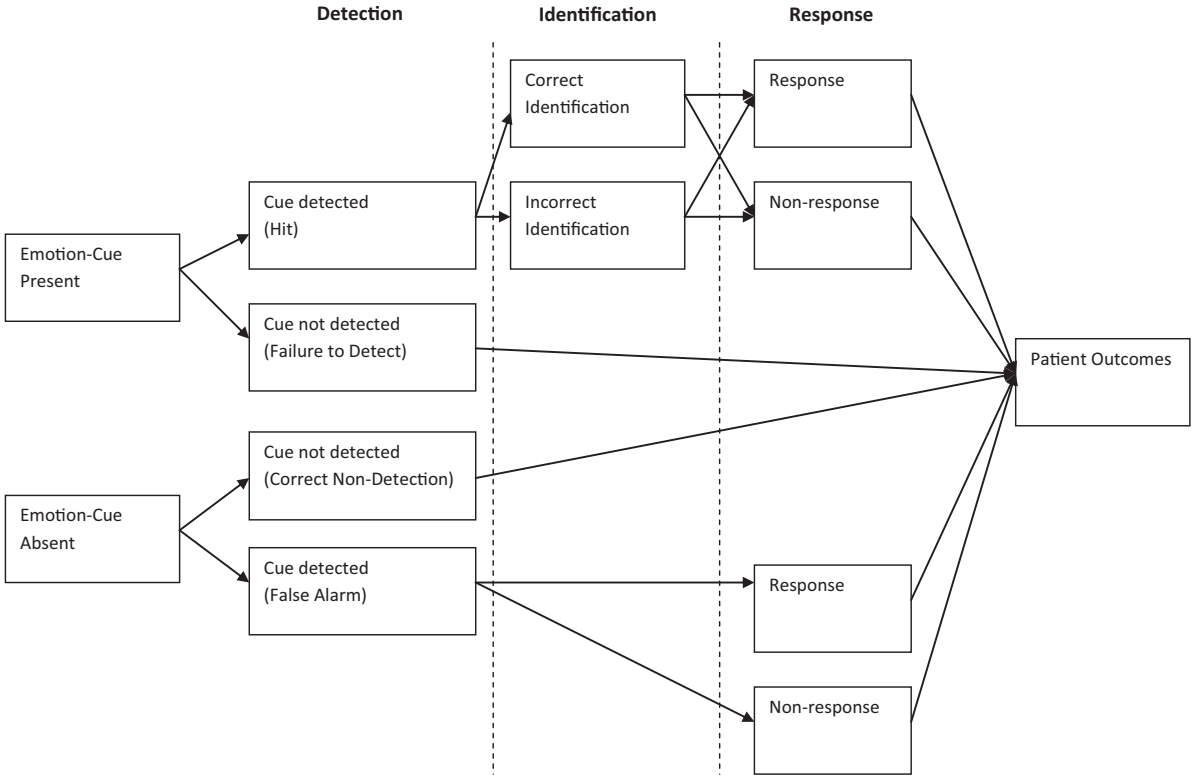

Fig. 1. The Detection, Identification, and Response to Emotions Cue (DIREC) model of emotion processing in the physician–patient interaction.