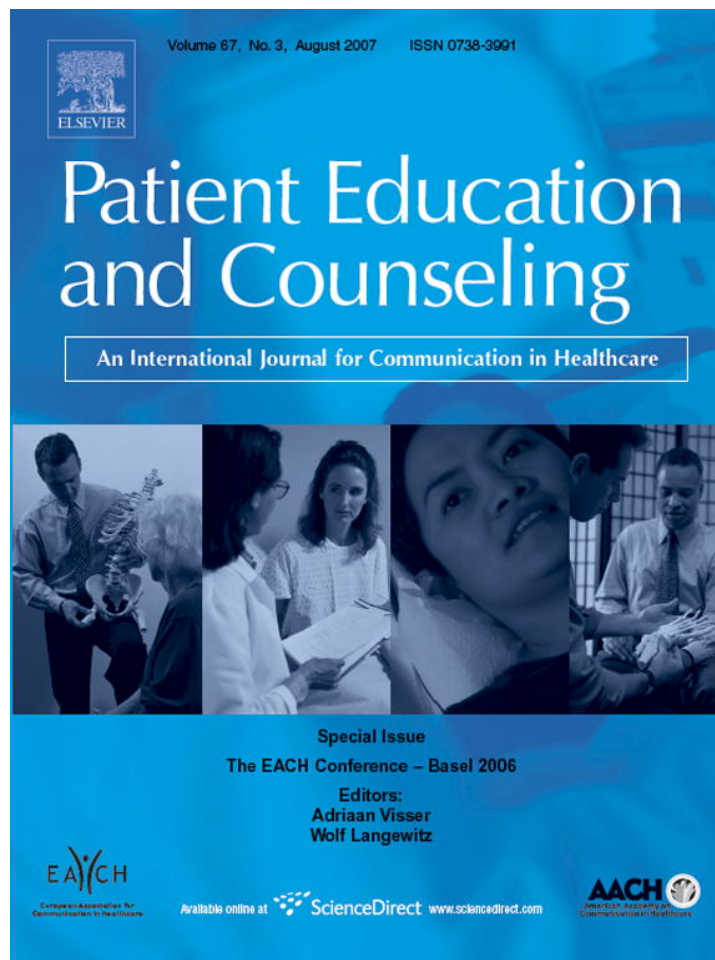


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Review

# On the importance of nonverbal communication in the physician–patient interaction

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## Abstract

**Objective:** The goal of this paper is to show that nonverbal aspects in the physician–patient interaction play an important role. Interpersonal judgment relies mostly on nonverbal and appearance cues of the social interaction partner. This is also true for the physician–patient interaction. Moreover, physicians and patients tend to mirror some of their nonverbal behavior and complement each other on other aspects of their nonverbal behavior. Nonverbal cues emitted by the patient can contain important information for the doctor to use for treatment and diagnosis decisions.

**Conclusion:** The way the physician behaves nonverbally affects patient outcomes, such as, for instance, patient satisfaction. Affiliative nonverbal behavior (e.g., eye gaze and proximity) of the physician is related to higher patient satisfaction. However, how different physician nonverbal behaviors are related to patient satisfaction also depends on personal attributes of the physician such as gender, for instance.

**Practice implications:** Physician training could profit from incorporating knowledge about physician and patient nonverbal behavior.

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**Keywords:** Physician–patient communication; Nonverbal behavior; Gender

## 1. Introduction

The potent effect nonverbal behavior can have on the health outcome of patients becomes immediately clear when considering double-blind paradigms. In a double-blind paradigm, it is not only the patient who does not know whether he or she is getting the experimental drug but also the clinician is blind as to whether a specific patient receives the pharmacologically active drug or the placebo. Why does the clinician have to be blind also? Because when he is not, he might convey with his nonverbal behavior to the patient whether the patient receives the experimental drug or the placebo. He might, as an example, hand the new pain killer, the experimental drug to be tested for its effect, always with a smile and a nod to the patient. Conversely, when he knows it is just the placebo, he hands the pill with a blank facial expression to the patient. This is a classical confound situation. If the people in the experimental group report less pain than the people in the control group, we cannot be certain that it is because of the pharmacologically active ingredient in the new pain killer or because of the clinician's friendly nonverbals. The

fact that pharmacologists control for nonverbal effects by using double-blind procedures testifies to the power of nonverbal communication in the physician–patient interaction.

And indeed, there is ample research showing that we are able to influence our social interaction partner's behavior by our often even unconscious nonverbal behavior. For instance, subtle nonverbal cues a teacher exhibits affect how children perform in school [1] and subtle nonverbal cues people show in a group interaction determines the social hierarchy of the group [2]. Such effects of self-fulfilling prophecy have been found in many different settings such as relationships, work, or school.

Since the nonverbal behavior research has a long tradition outside the medical field, we can use this knowledge and apply it to the physician–patient interaction. This certainly applies to the methods of investigation and the theoretical concepts.

### 1.1. Verbal and nonverbal behavior

Nonverbal behavior is defined as behavior without linguistic content [3]. We can distinguish between speech-unrelated nonverbal behavior like gazing and nodding and speech-related nonverbal behavior such as tone of voice or speaking time. Whether people rely on verbal or nonverbal behavior to interpret a message communicated to them depends on distinct

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situational factors. If, for instance, a verbal message is ambiguous, nonverbal cues become important in interpreting what was said. It also depends on the availability of cues. When conversing on the phone people pay more attention to voice cues such as tone of voice than in face-to-face interactions where there are many speech-unrelated nonverbal behaviors available.

In the physician–patient interaction, there has been a focus on the verbal behavior between physician and patient and the role of nonverbal behavior has comparatively less frequently been studied. Testifying to this is the fact that most tools available to analyze physician–patient interactions are based predominantly on verbal analyses, like the process analysis system [4], the verbal response mode [5], or the Roter Interaction Analysis System (RIAS) [6]. It has to be noted that, for instance, the RIAS also takes into account nonverbal behavior. There are global ratings of, for instance, dominance made at the end of the coding. These ratings are affected by both verbal and nonverbal information.

### 1.2. Nonverbal behavior and interpersonal judgment

Nonverbal behavior plays an important role in many social interactions of which the physician–patient interaction is just one example. For instance, many of our interpersonal judgments are based on the observation of thin slices of behavior [7]. A thin slice judgment is one that is based on the observation of an excerpt of less than 5 min out of a dynamic behavioral stream. Research shows that we are pretty accurate and in most cases better than chance level when we judge other people. These judgments refer to other's personality traits such as dominance or intelligence [8,9], the type of social relationships people are involved in, for instance, which one of two persons is the boss of the other [10,11], what the intentions or motives of others are [12,13], and what they feel or think [14–16]. It is noteworthy that these are judgments performed on strangers meaning that the observer has nothing else than a thin slice of behavior to base his or her judgment on. There might be some verbal information available, however, in many instances judgments rely on nonverbal behavior or on appearance cues of the person to be judged. We can conclude from this evidence, that nonverbal behavior of our interaction partner is crucial when we form an impression of him or her and when we try to get to know the other person.

Also in the physician–patient interaction, how well the physician can judge the patient, or in other words, how well he or she can read the patient's nonverbal behavior impacts the physician–patient relationship. Physicians who are good at reading and correctly interpreting other people's nonverbal cues have patients who are more satisfied and more likely to return for their next appointment than physicians who are less able to read others' nonverbals [17,18].

### 1.3. Physicians' and patients' nonverbal behavior

What do physicians and patients do in terms of nonverbal behavior during the medical visit? Street and Buller [19]

videotaped 38 patients and their 10 physicians from a family practice clinic during the medical visit. They coded the physician and patient nonverbal behavior based on the videotapes. There was no difference between physicians and patients in gazing away from the partner and the two behaviors were positively correlated meaning that the more the physician gazed at the patient, the more the patient gazed at the physician. The same pattern emerged for body orientation and the authors concluded that for affiliative behavior, the physician and the patient mirrored their behavior or in other words, their behavior was congruent. However, for more dominance-related behavior like how much each person spoke, the behaviors were asymmetrical; the physician talked more than the patient and both behaviors were negatively related, thus the more the physician talked the less the patient spoke. Reciprocity for affiliative behaviors and complementarity for dominance-related behaviors has also been shown outside the physician–patient interaction domain in dyadic peer interactions [20].

Besides the question of who does what in terms of nonverbal behavior during the medical visit, it is also interesting to study the effects of physician and patient nonverbal behavior. On the one hand, research has addressed how the physician's nonverbal behavior affects the patient's perception of the physician like, for instance, how satisfied the patient is with the doctor. On the other hand, research can look at the effects of patient nonverbal behavior on the physician's perception of the patient, like, for instance, the diagnosis. There is a lack of research investigating patients' nonverbal behavior. Future research could focus more on patient nonverbal behavior and address questions such as, for instance, how patient nonverbal behavior affects the sort of questions the physician asks.

### 1.4. Effects of physician nonverbal behavior on patients

Most of the existing research on the effects of nonverbal behavior is on the impact of physician nonverbal behavior. Physician nonverbal behavior can improve patients' functioning. For instance, Ambady, et al. [21] found that physical therapists' distancing behavior such as absence of smiling and looking away from client was related to decreases in the clients' physical and cognitive functioning. Physician nonverbal behavior also affects physicians in that physicians with better nonverbals suffer less medical malpractice litigations. As an example, surgeons with a more dominant tone of voice were more likely to have been sued for medical malpractice than surgeons with a less dominant tone of voice [22]. Also, specific physician nonverbal behavior can improve the quality of the diagnosis. Bensing, et al. [23] found that physician gazing was related to more successfully recognizing psychological distress in patients.

Mostly, the relation between physician nonverbal behavior and *patient satisfaction* has been studied. Research by Hall, et al. [24] has shown that patient satisfaction is related to physician expressiveness. Expressiveness was operationalized by the following nonverbal behaviors: less time reading medical chart, more forward lean, more nodding, more gestures, closer interpersonal distance, and more gazing. A

more recent study by Griffith, et al. [25] resulted in very similar findings in that patient satisfaction was higher when physicians smiled much, had eye contact with the patient, leaned forward, had an expressive tone of voice and face, and gestured much among other things.

### 1.5. Different effects of the same nonverbal behavior: the study of moderators

One has to be cautious about interpreting the meaning of specific nonverbal cues. There is no nonverbal behavior dictionary and one and the same nonverbal behavior can mean different things depending on situation. For instance, gazing at the other can be an expression of intimacy and interest in a love relationship but being perceived as a threat when exchanged among strangers. To date, we have a limited understanding of what different nonverbal cues mean in general and in the physician–patient interaction in particular.

As there is no single meaning to one specific nonverbal cue, there is evidence that many factors affect whether and how a specific nonverbal behavior is related to, for instance, patient satisfaction. As an example, research shows that gender affects the relation between specific nonverbal behaviors and patient satisfaction. To illustrate, in male physician–male patient consultations, physician interruptions were negatively related to satisfaction, whereas in female physician–female patient consultations, physician interruptions were positively related to patient satisfaction [26]. If, as suggested by these results, patient satisfaction is determined differently when seeing a female as compared to seeing a male doctor, it is important to investigate these differences in order for physician training to take the gender aspect into account.

In a recent study [27], we found that patient satisfaction was related to female gender stereotypical nonverbal behavior (e.g., more gazing at patient, less interpersonal distance, softer voice, less looking at medical chart) for female physicians and that patient satisfaction was especially high if male physicians adhered to male gender stereotypical nonverbal behavior (e.g., more interpersonal distance, more expansiveness, louder voice).

Also the severity or type of medical problem has been discussed to moderate the relation between physician nonverbal behavior and satisfaction. However, there is evidence showing that the type of problem does not affect the relation between the physicians' emotional expressiveness and patient satisfaction [25]. Other potential moderators are age, economic or educational status among others.

## 2. Discussion and conclusion

### 2.1. Discussion

Nonverbal aspects in the physician–patient interaction play an important role and have to date not received much research attention. There is a lack of research addressing how patient nonverbal behavior affects physician behavior during the visit (e.g., what kind of questions the doctor asks) and consequently

diagnosis and treatment recommendations. Some research has looked at the impact of physician behavior on patient outcome, mostly studied as patient satisfaction. Empirical evidence suggests that nonverbal behavior indicative of a patient-centered approach (e.g., expressiveness, non-dominant tone of voice) is related to patient satisfaction. However, patients may harbor different expectations towards different doctors [28] and therefore, how different behavioral cues are related to patient satisfaction may depend on attributes of the physician such as gender, age, for example.

### 2.2. Conclusion

Ideally, patient outcomes such as, for instance, satisfaction is based on the clinically relevant behaviors of physicians but in the actual world we live in, satisfaction seems to be also influenced by non-clinical, for instance, nonverbal behaviors. Moreover, what nonverbal cues contribute to patient satisfaction depends on factors of the personality of the physician as well as on such of the patient (e.g., gender, age). The effects of nonverbal behavior in the medical encounter and the role of moderators on these effects are to date not well understood and more research is needed to shed light on those relations.

### 2.3. Practice implications

This review suggests that the communication training for physicians should take into account nonverbal behavior. Physicians could be made aware that patients also communicate nonverbally and that this information can work to the advantage of both physician and patient. Research suggests that if physicians pay attention to the nonverbal cues emitted by their patients and if they succeed in inferring how the patient feels based on the patient's nonverbal expression, this has a positive effect on patient satisfaction and adherence (e.g., appointment keeping) [17,18]. On the other hand, physicians can learn to monitor their own nonverbal behavior. If we know, for instance, that patients are particularly satisfied with female physicians if they adhere to a female-typical nonverbal communication style and that male physicians adopting a rather male-typical nonverbal interaction style have satisfied patients, we can incorporate that knowledge into the physician's training. The existing results rather speak to a physician training that is not "one size fits all". This is not to suggest that there should be an individualized nonverbal training concept for each and every physician but that nonverbal training might profit from emphasizing individual behavior differences rather than from indoctrinating one specific nonverbal behavior. And maybe the lesson to teach is about authenticity of behavior. The more authentic the nonverbal behavior of the physician the more satisfied patients are.

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