Patient-Centeredness as Physician Behavioral Adaptability to Patient Preferences

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Abstract

A physician who communicates in a patient-centered way is a physician who adapts his or her communication style to what each patient needs. In order to do so, the physician has to (1) accurately assess each patient's states and traits (interpersonal accuracy) and (2) possess a behavioral repertoire to choose from in order to actually adapt his or her behavior to different patients (behavioral adaptability). Physician behavioral adaptability describes the change in verbal or nonverbal behavior a physician shows when interacting with patients who have different preferences in terms of how the physician should interact with them. We hypothesized that physician behavioral adaptability to their patients' preferences would lead to better patient outcomes and that physician interpersonal accuracy was positively related to behavioral adaptability. To test these hypotheses, we recruited 61 physicians who completed an interpersonal accuracy test before being videotaped during 4 consultations with different patients. The 244 participating patients indicated their preferences for their physician's interaction style prior to the consultation and filled in a consultation outcomes questionnaire directly after the consultation. We coded the physician's verbal and nonverbal behavior for each of the consultations and compared it to the patients' preferences to obtain a measure of physician behavioral adaptability. Results partially confirmed our hypotheses in that female physicians who adapted their nonverbal (but not their verbal) behavior had patients who reported more positive consultation outcomes. Moreover, the more female physicians were accurate interpersonally, the more they showed verbal and nonverbal behavioral adaptability. For male physicians, more interpersonal accuracy was linked to less nonverbal adaptability.

Keywords: physician-patient communication, patient-centered care, behavioral adaptability, interpersonal accuracy, patient outcomes.

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Patient-centeredness places the patient in the center of the physician-patient interaction. However, not all patients are equal and the patient-centered physician thus needs to individually adapt his or her interaction behavior to each and every patient. This idea of adaptation is present in many definitions of patient-centeredness: “customization of care” (Berwick, 2002, p. 85), “respecting patients' wants, needs, and preferences” (Institute of Medicine, 2001, p. 48), or providing a “care that is concordant with the patient's values, needs and preferences” (Epstein et al., 2005, p. 1516). Although there is widespread agreement on the importance of adapting to different patients, the skill to do so has seldom been the focus of an investigation. The first goal of the present research is to test whether physicians are able to adapt their behavior according to the different needs of their patients, a skill called *behavioral adaptability* (Carrard & Schmid Mast, 2015). Then, we set out to test whether physicians who are able to adapt their behavior to what their patients expect from them had patients who report better consultation outcomes (i.e., satisfaction and trust in the physician). Moreover, if different patients require being addressed differently, this means for the physician that he or she needs to somehow know or infer what the preferred interaction style of each patient is in a given medical encounter. The skill that is used to accurately infer others’ states and traits is called *interpersonal accuracy* (Hall, Schmid Mast, & West, 2016) and is most likely also the one used to infer what patients expect from their doctors in terms of how the doctor should interact with them. We therefore expect more interpersonally accurate physicians to be more inclined to adapt their behavior to what their patients expect from them.

Not All Patients Need the Same Physician Interaction Style

Typically, patient-centered physician behavior is measured as a set of specific physician behaviors (e.g. empathic statements, open-ended questions, gazing at the patient, or loudness of voice; Mead & Bower, 2000). These behaviors can be mapped onto the two main

dimensions of human interaction, defined by Kiesler and Auerbach's interpersonal circumplex (2003) as affiliation (agreeableness, friendliness) and control (dominance, power). These two dimensions are considered to be universal and have been used as a theoretical model for research concerned with personality and with social interactions. Affiliation and control have also been used to describe medical interactions. In this realm, the notions of caring and sharing are used (Krupat, Yeager, & Putnam, 2000). Caring corresponds to the affiliation dimension and designates the extent to which individuals show concern, empathy, and psychosocial orientation. Sharing is the reverse of the control dimension and corresponds to the sharing of power, information, and decision-making between physician and patient. Caring and sharing are defined as the two fundamental dimensions of patient-centeredness (Krupat, Yeager, et al., 2000). Patient-centeredness is thus usually operationalized as the extent to which the physician shows high levels of caring and sharing behavior (CSB) towards his or her patients.

Although CSB of the physician is generally appreciated by patients (Beck, Daughtridge, & Sloane, 2002), high levels of CSB might not be appropriate for all patients. For instance, Graugaard and Finset (2000) showed that moderately anxious patients were less anxious when interacting with physicians showing more caring and sharing, but more anxious patients' levels of anxiety increased when facing the same kind of physicians. Similarly, it has been demonstrated that the more anxious the patients are, the more they tolerate angry or dominating physicians (Hall, Roter, & Rand, 1981; Street & Wiemann, 1987). Cousin and Schmid Mast (2013) showed that, compared to less agreeable patients, patients scoring high on agreeableness report more positive outcomes when interacting with physicians who display a caring nonverbal communication style (e.g., looking at patient, smiling, nodding). Similarly, patients indicate more positive outcomes when their physician's communication style is congruent with the one desired by the patients (Cousin, Schmid Mast, Roter, & Hall, 2012).

These results suggest that there is no “one size fits all” communication style for medical encounters and that an adaptation of behaviors might be more efficient than showing a finite set of behaviors towards all patients.

The Behaviorally Adaptive Physician

Behavioral adaptability means the physician’s ability to flexibly change his or her behavior from one patient to the other in order to match each patient’s interaction preferences. Behavioral adaptability can only manifest itself when observing one and the same physician interacting with more than one of his or her patients who have different preferences in terms of physician interaction style. In order to be able to observe the change in behavior in the doctor, we need to provide him or her with the opportunity for showing this change.

There is preliminary evidence that physician behavioral adaptability is indeed beneficial for patients. It has been shown that the more physicians adapted their nonverbal dominance behaviors (e.g., loudness of voice) to what the patients expect, the more positive the consultation outcomes were for the patients (satisfaction, trust, and physician competence; Carrard, Schmid Mast, & Cousin, 2016). This confirms Expectation Confirmation Theory (Jiang & Klein, 2009), positing that when a person’s expectations are met, that person is more satisfied. The current study aims to replicate these findings by testing whether physicians are able to adapt their interaction behavior (behavioral adaptability) to patients who differ in how they want to be interacted with during the medical consultation and by verifying whether the more a physician shows behavioral adaptability, the better the consultation outcomes are for his or her patients (patient outcomes). The current research will also extend previous findings by investigating adaptability with respect to both affiliation and dominance and not only in relation to dominance as in the former study. Also, the current study does not only look at behavioral adaptability on the nonverbal level but also on the verbal level. Moreover, we set

out to investigate whether those physicians who are particularly interpersonally accurate are the ones who adapt their behavior to their patients' preferences.

The Interpersonally Accurate Physician

Interpersonal accuracy is the ability of an individual to correctly infer others' traits and states (Hall et al., 2016). This skill encompasses the inference of preferences as well as accurately judging characteristics such as emotions, preferences, or personality. To infer a patient's interaction preference in a given medical encounter, the physician needs to take into account how the patient feels. Correct emotion recognition is thus an important aspect of interpersonal accuracy although the concept of interpersonal accuracy is defined more broadly. Research shows that people are typically able to assess what others feel and think (Ickes, 2003; Matsumoto et al., 2000; Nowicki & Duke, 1994) but that there are huge individual differences in this skill (Hall, Carter, & Horgan, 2000; Nowicki & Duke, 1994). With respect to physicians, research shows that more interpersonally accurate physicians have patients who are more satisfied, compliant, and involved (Hall, Andrzejewski, & Yopchick, 2009).

In the present study, we investigate whether more physician interpersonal accuracy is related to more physician behavioral adaptability. Recognizing correctly what the patient needs or wants in terms of the physician's interaction style in a given medical encounter seems a necessary prerequisite for the physician to then adapt his or her interaction behavior. In other words, if the physician wants to adapt his or her behavior to different patients, he or she must first know or infer what the different patients' needs and preferences are. This is why we hypothesized a positive relation between interpersonal accuracy and behavioral adaptability.

Method

Participants

Between 2013 and 2014, more than 400 general practitioners working in private practices in the French speaking part of Switzerland were contacted by phone or mail. In total, 61 physicians agreed to participate in the study. They were not paid for their participation but received personal feedback on their data and were informed that they would be invited to attend a scientific colloquium during which we would present the results of the study.

We recruited 4 patients (2 female and 2 male patients) for each participating physician. Inclusion criteria for the patients were: fluency in French, above the age of 18, presenting no psychiatric disorder. The 244 participating patients were recruited in their physicians' waiting room and were not remunerated for their participation.

Procedure

Once a physician agreed to participate, he or she was asked to take an online interpersonal accuracy test and to report sociodemographic data (e.g., age, years of practice). Physicians were then videotaped in their private practice while in consultation with 4 different patients. During the consultations, the physicians were videotaped by a camera placed as unobtrusively as possible.

Patients were first asked to sign in an informed consent form and to report their preferences regarding their physician's interaction style for the upcoming consultation. This information was provided to the doctors. The reason why this information was conveyed to the doctor at the outset of the consultation was that if we want to test the link between physician interpersonal accuracy and behavioral adaptability, those 2 measures must be methodologically disentangled, meaning one cannot depend on the other by design. By providing the physician with the information about each patient's preference prior to the medical consultation, all physicians obtained an equal chance to show adaptability in their behavior regardless of their level of interpersonal accuracy (measured at the outset of the study by an emotion recognition test).

At the end of the consultation, patients were asked to report patient outcomes and socio-demographic information. The physicians' verbal and nonverbal behavior was coded based on the videotaped consultations. The entire procedure was reviewed and approved by the regional ethic committees for research on human subjects.

Measures

Interpersonal accuracy. Several validated tests of interpersonal accuracy exist. We used one of the most commonly used interpersonal accuracy measures, the Diagnostic Analysis of Nonverbal Accuracy (DANVA; Nowicki & Duke, 1994), an emotion recognition task that correlates with broader as well as medical-specific interpersonal accuracy tests (Blanch-Hartigan, 2011; Rosip & Hall, 2004). We opted for using the DANVA because emotions are an important part of most medical consultations and emotion recognition is a critical aspect of judging how to interact with patients (Hall, 2011; Roter, Frankel, Hall, & Sluyter, 2006).

Physicians were asked to fill in the DANVA (Nowicki & Duke, 1994) via an online link. . It consists of 24 faces, each presented for 2 seconds. For each face, the participant choses which of 4 emotions is expressed (happiness, sadness, anger, or fear). The final score is the total number of emotions correctly recognized (M = 18.08, SD = 2.58).

Patient preference. Before the consultation, patients filled in the Patient-Practitioner Orientation Scale (PPOS; Krupat, Rosenkranz, et al., 2000) measuring patient preference for their physician's caring and sharing interaction style. This scale consists of 18 assertions for which patients express their level of agreement on a scale between 1 (not agree at all) to 5 (completely agree). A sample item in the caring dimension is: "A treatment can not be successful if it is in direct conflict with the lifestyle or values of the patient"; and in the sharing dimension: "Patients should be treated as partners, equal in power and status". The PPOS final score is an indicator of how much the patient desires his or her physician to show CSB (Cronbach's alpha = .68, M = 3.33, SD = 0.48).

Patient outcomes. After the consultation, patients indicated their satisfaction with the consultation and their trust in the physician. Patient satisfaction and trust in the physician are the most commonly used outcome variables in healthcare studies (Beckman, Kaplan, & Frankel, 1989; Ong, De Haes, Hoos, & Lammes, 1995) and self-reported satisfaction is related to patient medical improvement (Wickizer et al., 2004; Yildirim, 2006). We measured these outcomes with 7 items chosen from a validated scale (Langewitz, Keller, Denz, Wossmer-Buntschu, & Kiss, 1995) showing good internal reliability in previous research (Cousin & Schmid Mast, 2015; Cousin, Schmid Mast, & Jaunin-Stalder, 2013; Cousin et al., 2012). On a Likert scale from 1 (not at all agree) to 5 (completely agree), patients indicated their level of agreement on 3 items measuring patient satisfaction with the consultation (e.g. "I am totally satisfied with my visit to this doctor") and 4 items evaluating patient trust in the physician (e.g. "I completely trust my doctor's decisions about which treatments are best for me"). Internal consistency of the 7 items was good (Cronbach alpha = .71) which is why we aggregated them to form a composite patient outcome measure with higher values indicating more positive patient outcomes (M = 4.61, SD = 0.45).

Control variables. Physician gender, age, and clinical experience might influence emotion recognition skills as well as ability to adapt. We thus asked physicians to indicate their gender (27 female, 34 male), age, number of years since graduation from medical school, number of years of medical practice, and number of years in their private practice. Because the latter 4 variables were highly correlated (Cronbach alpha = .97), we created a composite variable of physician experience (M = 28.71, SD = 8.31).

Demographic characteristics influence preferences for interaction style and outcome evaluation. Patients were thus asked to report their gender (27 female, 34 male), age (M = 57.48, SD = 17.98), and educational status (total number of degrees completed after secondary school; M = 2.27, SD = 1.02). Additionally, they indicated the number of years

they had known this particular physician (M = 9.64, SD = 10.38), the frequency of medical visits per year with this particular physician (1 = less than once a year; 5 = more than 6 times a year; M = 3.01, SD = 1.42), and the severity of the current medical problem (1 = not at all severe; 5 = extremely severe; M = 1.79, SD = 0.86).

Physician verbal behavior. Based on the videotaped consultations, the verbal behavior of the physicians was coded using the Roter Interaction Analysis System (RIAS; Roter & Larson, 2002) by certified and trained professional RIAS coders. The RIAS is a well-established coding system for verbal utterances and has specifically been designed for medical interactions. Each utterance is coded in one of 37 mutually exclusive categories for physicians (e.g., empathy, partnership, gives medical information, asks closed medical questions). The number of utterances of each category is then divided by the total number of utterances in order to control for discourse length.

Using all RIAS categories separately in a statistical model is impracticable, because its large number drastically decreases the model's statistical power. Therefore we simplified our data by computing a CSB composite suggested by the developer of the RIAS (Roter, personal communication, January 21, 2015) and used in previous studies of patient-physician communication (Ford, Fallowfield, & Lewis, 1996; Ishikawa, Takayama, Yamazaki, Seki, & Katsumata, 2002). This composite is a ratio of the relative frequencies of the RIAS caring and sharing categories (e.g., empathy, approval, partnership) divided by the frequencies of the categories inversely related to caring and sharing (e.g., criticism, closed-ended medical question). Higher numbers indicate more verbal CSB (M = 0.18, SD = 0.85).

Physician nonverbal behavior. We coded the physicians' nonverbal behavior based on 15 minutes of each consultation. We coded the first 5 minutes, the 5 minutes in the middle, and the last 5 minutes of the consultations (or the entirety of the consultation if it lasted less than 15 minutes; consultation duration was on average 22.94 minutes long, SD = 10.24).

These 3 sequences corresponded to the phase of exploring the problem, the phase of establishing a diagnosis, and the phase of conveying a treatment, respectively (Clark & Mishler, 1992). We chose to use this so-called "thin slices" method, because it has been shown that longer periods of behavioral observation do not yield more accurate predictions (Ambady & Rosenthal, 1992; Murphy, 2005).

A total of 7 judges blind to the hypotheses coded 7 physician nonverbal behaviors documented in the literature to be related to caring and sharing. We chose 4 behaviors that have been reported as indications of the affiliative dimension of human interactions (Kiesler & Auerbach, 2003) corresponding to the caring dimension of medical interactions (Krupat, Yeager, et al., 2000): patient speaking time, physician gazing at the patient, physician nodding, and physician smiling. The other 3 nonverbal behaviors have been shown to be related to the control dimension of human interactions (Kiesler & Auerbach, 2003) as the opposite of the sharing dimension (Krupat, Yeager, et al., 2000): physician speaking time, physician gazing at notes or computer, and physician loudness of voice (all reliability indices between .67 and .97)[1].

Once we reversed the 3 control-oriented behaviors, all 7 physician nonverbal behaviors were correlated with each other (Cronbach alpha = .68) which is why we computed an aggregate measure of nonverbal CSB. Higher numbers indicate more physician nonverbal CSB (M = 0.29, SD = 0.84).

Physician behavioral adaptability. According to our definition, physician behavioral adaptability is the physician's ability to modify his or her behavior according to different patients' preferences. Therefore, for each physician, we computed the correlation between the physician's CSB shown towards each of his or her 4 patients and the preferences for the

[1] A Table describing the coding of each nonverbal behavior and the detailed reliability indices is available from the corresponding author.

physician interaction style of each of these patients. We did this separately for physician verbal and nonverbal CSB. We thus obtained one measure for physician *verbal* (M = 1.30, SD = 1.68) and one for physician *nonverbal* behavioral adaptability (M = 1.22, SD = 7.57).

Behavioral adaptability indicates how much the physician's CSB corresponds to what his or her patients prefer in terms of physician CSB. For example, a high score on nonverbal behavioral adaptability indicates that the physician showed relatively more gazing, smiling, and nodding and used a relatively lower voice, gazed less at the notes and spoke less to the patients who wanted their physician to show more CSB than towards the patients who wanted their physician to show less CSB.

Analyses

Physician experience as well as patient age, patient education, years since patient's first consultation with this physician, frequency of patient visit, severity of patient medical problem, and consultation duration were related to our variables of interest (patient outcomes, emotion recognition, verbal and nonverbal behavioral adaptability). We thus entered these 7 variables as covariates in all the computed models. Because the literature shows that there are gender differences in interpersonal accuracy (Hall, 2011) and CSB (Roter & Hall, 2004), we computed the analyses over all physicians as well as separately for female and male physicians.

We tested whether physician behavioral adaptability is linked to patient outcomes at the patient level with fixed effect multilevel models that allow for the nesting of observations within physician (Hox, 2010). In these models, the patient outcome variable is entered in the statistical analyses as a dependent variable with verbal and nonverbal adaptability as independent variables. Verbal and nonverbal CSB were treated as covariates to test whether behavioral adaptability explains patient outcomes even when controlling for high levels of CSB.

We tested whether physician interpersonal accuracy is linked to behavioral adaptability using 2 linear regression models, one for verbal and one for nonverbal behavioral adaptability. Because our dependent and independent variables are on the same data level (physician level), the use of multilevel analysis is unnecessary. For the covariates that are on the patient data level, we entered computed means per physician.

A methodological issue in our study is the naturally occurring variability of the patients' preferences per physician which cannot be controlled in a field study. One physician might have 4 patients that vary highly in their preferences for physician interaction style. Such a physician would have more opportunity to show behavioral adaptability compared to a physician whose 4 patients do not vary in terms of interaction style preferences. We thus controlled for this effect by introducing the standard deviation of patient preferences for each physician as a covariate in our analysis. As this variance in patient preferences per physician did not influence our results we will present them without this covariate.

Results

Independent sample *t*-tests showed no significant differences between female and male physicians with respect to any of the measured variables. Correlation analyses shows that there is a significant link between verbal and nonverbal behavioral adaptability ($r(61) = .35$, $p < .001$) as well as between verbal and nonverbal CSB ($r(61) = .46$, $p = < .001$). However, behavioral adaptability and CSB are not correlated which each other. The physicians showing high levels of behavioral adaptability are thus not the ones showing more CSB and vice versa. Also, there is a link between patients' sociodemographic characteristics and their preferences for CSB[2].

We were interested in finding out whether physicians show behavioral adaptability. To test this, we calculated a *t*-test against 0 (the value that would be expected if there is no

[2] Complete correlation Table is available from the corresponding author.

behavioral adaptability) for both verbal (M = 0.18, SD = 0.05) and nonverbal behavioral adaptability (M = 0.29, SD = 0.05). Results showed that they are significantly different from 0: $t_{verbal}(243) = 3.24$, $p = .001$; $t_{nonverbal}(244) = 5.38$, $p < .001$. This means that physicians can on average adapt their verbal and nonverbal behavioral to their patients' preferences.

Table 1 shows the results concerning our prediction that physician behavioral adaptability is linked to patient outcomes. For female physicians, nonverbal, but not verbal, behavioral adaptability was significantly positively linked to patient outcomes. It is noteworthy that physician CSB was unrelated to patient outcomes. For male physicians, neither verbal nor nonverbal behavioral adaptability was related to patient outcomes and physician CSB was also unrelated to patient outcomes. Not separating female and male physicians yielded no significant results.

Regression analyses testing whether physician interpersonal accuracy and physician behavioral adaptability were linked, yielded different results for female and male physicians (Table 2). For female physicians, there was a significant positive link between interpersonal accuracy and both verbal and nonverbal behavioral adaptability (marginally significant for nonverbal). A different pattern was observed for male physicians with higher interpersonal accuracy skills being significantly related to *less* nonverbal behavioral adaptability. No significant link was observed between male physician interpersonal accuracy and their verbal behavioral adaptability. Not separating female and male physicians yielded no significant results[3].

Discussion

The goal of our research was to test whether physicians are able to adapt their verbal and nonverbal interaction behavior according to the different preferences of their patients for how

[3] We tested whether interpersonal accuracy could be a moderator of the relation between behavioral adaptability and consultation outcomes and found no significant moderation effect.

the physician should interact with them during the medical encounter. Results showed that female and male physicians were both able to adapt their behavior according to their patients' interaction preferences. Moreover, we expected that physicians who adapt their behavior would have patients who report more positive consultation outcomes. This was indeed the case but only for female physicians and only for these female physicians' nonverbal behavioral adaptability, not for their verbal adaptability. No link between behavioral adaptability and patient outcomes emerged for male physicians. Our results also suggest that behavioral adaptability might capture better the concept of patient-centeredness than showing a set of defined physician CSB. Future research might consider measuring patient-centeredness as the extent to which physicians adapt their behavior to each patient instead of assessing the level of a specific set of behaviors displayed towards all patients despite their differences. The results of the present study indeed underscore that showing a set of specific sharing and caring behaviors is not the best way to achieve positive patient outcomes and that adapting the nonverbal behavior to the preference of each patient might yield better patient outcomes, at least for female physicians.

Our results did not show a link between *verbal* adaptability and patient outcomes. Verbal communication is known to be more under conscious control than nonverbal communication (Choi, Gray, & Ambady, 2005). Moreover, the communication training medical students receive is mostly focused on verbal content with very few including nonverbal aspects of medical interaction (Cegala & Lenzmeier Broz, 2002). It is also important to note that the verbal aspects of medical interactions are expected to follow a certain path. It is for example expected that the physician first asks medical history questions, explores the symptoms, proposes a diagnosis and then discusses the treatment (Clark & Mishler, 1992). Consequently, physicians might be more limited in adapting their verbal behavior whereas nonverbal behavior offers more flexibility. This is supported by our data. A *t*-test shows that physicians

display overall more nonverbal adaptability (M = 0.29, SD = 0.05) than verbal adaptability (M = 0.18, SD = 0.05), $t(243) = 1.83$, $p < .05$. The verbal guidelines taught and the more rigid nature of consultations' verbal content seem thus to restrain physicians' verbal adaptation to their patients' preferences.

One unexpected finding of the present study is the difference between female and male physicians. Whereas female and male physicians do not significantly differ with respect to their level of nonverbal behavioral adaptability, our results show that nonverbal behavioral adaptability was linked to patient outcomes for female, but not for male physicians. These findings are unlikely to indicate that male physicians' behavioral adaptability is never related to better patient outcomes, because a previous study showed that when physicians adapted their nonverbal sharing behavior according to the patients' preferences for sharing, patients of male *and* female doctors reported better patient outcomes (Carrard et al., 2016). In the present study, we measured nonverbal adaptability as the extent to which physician CSB corresponded to patient preferences for CSB without disentangling caring and sharing. Maybe when it comes to caring, male and female physicians are evaluated differently by the patients. A study indeed showed that female physicians behaving in a less caring way were evaluated more negatively, whereas male physicians were evaluated positively no matter the level of caring they displayed (Schmid Mast, Hall, Klöckner, & Choi, 2008). If, as these findings suggests, male physicians' level of caring does not influence their patient outcomes, neither might their adaptability with respect to caring behaviors.

We also expected physicians who are good at assessing others (interpersonal accuracy) to be more behaviorally adaptive. This was confirmed for female physicians (marginally so for nonverbal adaptability) but not for male physicians for which there was a negative correlation between interpersonal accuracy and nonverbal behavioral adaptability. It is possible that the operationalization of interpersonal accuracy as emotion recognition is responsible for the

difference in the results among female and male physicians. A meta-analysis showed that interpersonal accuracy is more linked to psychosocial functioning of women than of men (Hall et al., 2009). Another study using the same measure of emotion recognition accuracy as we used showed a positive link between emotion recognition and interactional performance for female but not for male managers (Byron, 2007). Moreover, it has been shown that women have more knowledge of nonverbal cues (Rosip & Hall, 2004). Consequently, it is plausible that male interactional performance is driven by other interpersonal abilities than emotion recognition. Future studies should test whether other aspects of interpersonal accuracy (e.g., accurately assessing others' personality) is related to more behavioral adaptability for male physicians.

Conclusion

This study shows that female physicians' nonverbal behavioral adaptability to the preferences of the patients – as varied as they might be – was related to more positive patient outcomes whereas high levels of caring and sharing behaviors were not. Therefore, it is the tailoring of the behavior and not the "one size fits all" approach that is most appreciated by patients, at least for patients of women doctors and when women doctors adapt their nonverbal behavior. Moreover, our study shed light on the physicians' skills that might help them to show behavioral adaptability: We found that female physicians who are skilled in reading others show more behavioral adaptability.

Medical faculties might thus consider including interpersonal accuracy training (Blanch-Hartigan & Ruben, 2013), and especially emotion recognition training, in their curricula as it might be particularly beneficial for patients of female physicians. Medical training might also include the teaching of various interaction styles, and not only a set of specific behaviors. Possessing a richer behavioral tool box would indeed be a first step to the tailoring of care and

hence to patient-centered care, according to its core definition: adapted to each individual patient.

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Table 1

Fixed Effect Multilevel Model of Physician Behavioral Adaptability Predicting Patient Outcomes

	All physicians		Female physicians		Male physicians	
Variables	*B*	SE	*B*	SE	*B*	SE
Physician verbal BA	0.06	0.05	0.003	0.04	0.08	0.07
Physician nonverbal BA	0.01	0.04	0.08*	0.04	0.03	0.08
Physician verbal CSB	-0.01	0.02	-0.004	0.02	-0.01	0.05
Physician nonverbal CSB	0.01	0.01	0.01	0.01	0.01	0.01
Wald chi^2	82.43***		256.48***		90.83***	

Note. N physicians = 61 (27 F, 34 M), N patients = 244 (122 F, 122 M). Variables are unstandardized; results with standardized scores are available from the corresponding author. BA= behavioral adaptability; CSB = caring-sharing behavior. Covariates included in the models are: physician experience, patient age, patient education, years since first consultation, frequency of patient visit, severity of medical problem, and consultation duration.

$^{\dagger}p < .10$. $*p < .05$. $**p < .01$. $***p < .001$.

Table 2

Linear Regression Model of Physician Emotion Recognition Predicting Physician Behavioral Adaptability

	Verbal BA						Nonverbal BA					
	All physicians		Female physicians		Male physicians		All physicians		Female physicians		Male physicians	
Variables	*B*	SE	*B*	SE	*B*	SE	*B*	SE	*B*	SE	*B*	SE
Physician emotion recognition	0.02	0.05	0.18*	0.07	-0.06	0.07	-0.05	0.05	0.15†	0.07	-0.16*	0.06
R^2	.15		.51		.38		.18		.52		.43	
F	1.09		2.24†		1.74		1.37		2.27†		2.15†	

Note. N physicians = 58 (26 F, 32 M), N patients = 232 (116 F, 116 M). BA = behavioral adaptability. Covariates included in the models are: physician experience, and mean per physician of patient age, patient education, years since first consultation, frequency of patient visit, severity of medical problem, and consultation duration.

†$p < .10$. *$p < .05$. **$p < .01$. ***$p < .001$.