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The Four Habits Coding Scheme: Validation of an instrument to assess clinicians' communication behavior

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Abstract

Objective: To present preliminary evidence for the reliability and validity of the Four Habits Coding Scheme (4HCS), an instrument based on a teaching model used widely throughout Kaiser Permanente to improve clinicians' communication skills.
Methods: One hundred videotaped primary care visits were coded using the 4HCS, and the data were assessed against a previously available data set for these visits, including the Roter Interaction Analysis System (RIAS), back channel responses, measures of nonverbal behavior, length of visit, and patients' post-visit assessments.
Results: Levels of inter-rater reliability were acceptable, and the distribution of ratings across items indicated that physicians' modal responses varied widely. Correlations between 4HCS ratings, RIAS, back channel responses, and non-verbal measures provided evidence of the instrument's construct validity.
Conclusions: The Four Habits Coding Scheme, an instrument that combines both evaluative and descriptive elements of physician communication behavior and is derived from a conceptually based teaching model, has the potential to be of utility to researchers and evaluators as well as educators and clinicians.
Practice Implications: The Four Habits Coding Scheme provides a template for both guiding and measuring physician communication behaviors.

Keywords: Physician–patient communication; Patient-centered care; Interaction analysis

1. Introduction

The Four Habits Model, used extensively to teach communication skills to thousands of clinicians in Kaiser Permanente, describes clusters of physician behaviors and skills associated with effective clinical practice and positive health outcomes [1–3]. The Four Habits (Invest in the Beginning; Elicit the Patient's Perspective; Demonstrate Empathy; and Invest in the End) lay out the basic tasks or functions of the medical interview, and also conceptualize how the elements of the interview relate to one another within and across medical visits. This model is consistent with the patient- and relationship-centered approaches to health care [4–6], and also derives from the three-function model of medical interviewing [7]. This paper presents the initial test of the Four Habits Coding Scheme (4HCS), an instrument for describing and evaluating clinician behavior based on this model.

1.1. Previous methods of coding clinician communication behaviors

Methods of describing and quantifying clinician communication behaviors have varied considerably, depending on the goals of the instrument developers. Educators, primarily interested in identifying and improving specific behaviors of medical students and residents, have used a

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wide variety of instruments. The Maastricht History Taking and Advice Checklist (MAAS) [8,9] and the Calgary-Cambridge Guides [10,11] are prime examples of comprehensive models and coding instruments that have been used widely and successfully for teaching and training. Although several rating formats have been used, checklists which code behavior as present or absent are the most common [12,13].

Researchers interested in communication patterns between patients and clinicians have developed a number of more elaborate coding schemes to categorize clinician and/or patient behavior. The Roter Interaction Analysis Scheme (RIAS) [14,15], the coding system most widely cited in the medical literature, assigns all physician and patient utterances into a set of 28 mutually exclusive categories, counting the frequency of each observed behavior. The Verona Medical Interview Classification System [16,17] divides communication behaviors into 22 categories according to the three function model, and has now been factor analyzed to distinguish different strategies of exchanging information, building a relationship, and negotiating a treatment plan. The 4HCS, derived from a conceptual model of practice and tied closely to a teaching framework, sits at the intersection of the research and training worlds, and can be used successfully in either context.

1.2. The Four Habits Coding Scheme

The 4HCS consists of 23 items derived from the core skills referred to in the Four Habits Model (see Appendix A for a complete list of all items). It differs from existing instruments in several ways. First, the behaviors observed and coded are more broadly defined than those in a standard checklist. For instance, to determine whether the "clinician shows great interest in exploring the patient's understanding of the problem" the 4HCS coder has to consider and combine several discrete behaviors such as the number and type of questions asked, and the nonverbal and verbal signals that encourage the patient to tell his/her story. Second, rather than focusing on frequency counts of behavior, the 4HCS asks coders to distinguish among five levels of performance for each coded behavior category. Third, while the coding categories *describe* clinicians' behavior, the underlying conceptual model implies distinctions that are actually *evaluative*. The data presented here represent an initial attempt to operationalize and code the behaviors subsumed by the Four Habits Model, and to establish the reliability and validity of the 4HCS.

2. Methods

2.1. Instrument development

2.1.1. Four Habits rating items

The 4HCS identifies a set of 23 behaviors, each associated with one of the Four Habits. Habit 1, Invest in the Beginning, contains six items that focus on creating rapport quickly and planning the visit (e.g., demonstrating familiarity with the patient and greeting the patient warmly). Habit 2, Elicit the Patient's Perspective, contains three items (eliciting the patient's understanding of the problem, understanding the patient's goals for the visit, determining the impact of the problem on the patient's life). Habit 3, Demonstrate Empathy, contains four items that deal with encouraging, accepting, and responding to the patient's expression of emotion (e.g., helping patients to identify their emotions; using appropriate nonverbal behavior). Habit 4, Invest in the End, contains 10 items that focus on effective decision making and information sharing (e.g., testing for comprehension and determining the acceptability of the treatment plan).

2.1.2. Study sample

The data set consists of 100 videotaped physician–patient visits from the Ambulatory Care Center of the Massachusetts General Hospital, a teaching hospital of Harvard Medical School. The tapes had been recorded for an earlier study of physician–patient communication [18,19] and were made available by one of the principal investigators of that project. Twenty five male and 25 female physicians were represented, varying in experience from residents to senior staff. With the prior consent of the physicians and patients, each physician was videotaped with one male and one female patient using a convenience sample. If a physical exam was performed, the lens was covered and only audio was recorded. New visits were excluded so that all patients would have at least some familiarity with their physicians. The patients were primarily white and older (average age of 62).

2.1.3. Reliability

Each item in the 4HCS is rated on a 5-point scale. The midpoint and the two endpoints are described in specific behavioral terms, such as indicating that the clinician uses little or no jargon (coded as 5); some jargon; (coded as 3); or is highly technical (coded as 1) (see Appendix A). A codebook with multiple examples of clinician statements exemplifying each of the identified scale anchors was developed in order to reduce the subjectivity of coders' judgements. The coders were encouraged to use categories 1, 3, and 5 (those with anchors), with categories 2 and 4 to be used only if they thought that the clinician's behavior fell directly in between. Two coders, both health professions students with some exposure to clinical practice, worked with one of the authors (EK) rating tapes randomly selected from the pool of 100 visits.

Inter-rater reliability was established by having the two coders independently rate 13 randomly selected visits. Their scores were compared for each individual rating within category and overall for the 23 categories using Pearson product moment correlations. The correlations for Habits 1–4 respectively were .70, .80, .71, and .69. The overall between-rater correlation across Habits was .72. Training time per coder in order to reach acceptable levels of

reliability was in the range of 8–10 h. Once coders were comfortable with the rating scheme, they rarely needed to review segments of the interview for coding purposes. Therefore, coding time per tape was typically the elapsed time of the visit plus 2–5 min.

Once the coders reached an acceptable level of reliability, each rated the remaining 87 videotapes independently, in no systematic order. The ratings of the two coders were combined for purposes of analysis, and mean scores were used in those instances in which the raters disagreed. As a result, ratings used in the analysis could take on any of nine values (1, 1.5, 2, 2.5, 3, 3.5, 4, 4.5 and 5).

2.2. Validity testing

To establish the validity of the 4HCS, the following categories of data, each available from previous analyses, were utilized.

2.2.1. Length of visit

Each visit was timed for its total duration.

2.2.2. Verbal behavior

(a) *RIAS coding*: All the videotapes had been coded using the RIAS. For this analysis, we utilized nine major RIAS categories of physician communication behavior most relevant to the 4HCS. The categories were: personal talk (e.g., greetings and casual conversation); positive/partnership talk (e.g., laughter; approval; requests for understanding or opinion); emotional talk (e.g., statements of reassurance or concern); open-ended questions asked; closed-ended questions asked; medical questions asked (e.g., about therapies, medications); psychosocial questions asked (e.g., about lifestyles); medical information offered; psycho-social information offered.

(b) *Back channel responses*: Back channel responses are brief verbal expressions of sustained interest or attention made by the person who is not holding the speaking floor. Examples of back-channel responses include utterances such as *yeah*, *uh-huh*, *okay*, *and right*.

2.2.3. Nonverbal indicators

(a) *Smiles and nods*: All visits had been previously coded for the number of times the physician smiled or nodded at the patient.

(b) *Eye contact*: Because camera angles made it impossible to measure how long the physician directly met the patient's gaze, an inverse indicator of this was determined by measuring how long the physician read or wrote in the patient's chart.

2.2.4. Post-visit questionnaire

Immediately after the visit, patients responded to 15 items on a 6-point Likert scale anchored by the terms *agree strongly* and *disagree strongly*. The items, which fell into three separate domains, were summed and averaged to yield three scores. These were: informativeness (five task-related items about whether the physician answered the patient's questions, explained why tests were being done, etc.); respect/consideration (seven items about the emotional tone of the visit such as whether the physician seemed annoyed with or talked down to the patient); and competence (three items about the physician's perceived skill and knowledge).

2.3. Data analysis

The data were analyzed in a series of steps. First, the mean scores and distribution of responses for each Habit and each of the specific items comprising the Habits were calculated. Then the internal reliability of each of the Habits was calculated using Cronbach's alpha. Finally, validity was investigated by determining the correlation of the Four Habits scores (and their component items) with each of the other available measures.

3. Results

3.1. Descriptive characteristics

The extent to which the clinicians engaged in each of the behaviors subsumed under the Four Habits varied considerably. As indicated in Table 1, the mean scores were particularly high on one component of Habit 1, demonstrating familiarity with the patient; and on three components of Habit 4, using the patient's concern to frame diagnostic information, offering information with little jargon, and making plans for follow-up. Mean scores were particularly low on two items: clinicians typically pursued patients' first stated concerns without eliciting their full agenda (Habit 1), and tended not to test for the patient's comprehension of information (Habit 4).

3.1.1. Item distribution

On 17 of the 23 items, the distribution of ratings was skewed such that the modal response was at one end of the scale (see Table 1). Clinicians' scores at the least effective end included: engaging in small talk; showing interest in the patient's perspective; identifying and accepting the patient's emotions; testing for comprehension; and exploring barriers to implementation. Clinicians' modal ratings were at the most effective end for behaviors such as: showing familiarity with the patient; encouraging patients to expand their concerns; showing appropriate nonverbal behaviors; and avoiding jargon.

3.1.2. Internal consistency

The internal consistency of the 4HCS was tested using Cronbach's alpha. For Habits 1–4 respectively the alpha's were .71, .51, .81, and .61. This indicates that the behaviors comprising Habits 1 and 3 were more closely associated with one another than those in Habits 2 and 4.

Table 1
Mean, mode and S.D. for Four Habits items

	Mean	Mode (% at mode)	Standard deviation
Habit 1: Invest in Beginning			
A. Show familiarity	4.11	5.0 (47.5)	1.10
B. Greet warmly	2.73	Tie 2.0, 3.0 (16.3)	1.12
C. Engage in small talk	2.52	1.0 (30.3)	1.12
D. Question Style	2.89	3.0 (22.4)	1.23
E. Expansion of concerns	3.67	5.0 (25.8)	1.20
F. Elicit full agenda	1.74	1.0 (42.9)	.86
Habit 2: Elicit Patient's Perspective			
A. Patient's understanding of problem	2.91	1.0 (18.6)	1.38
B. Goals for visit	2.13	3.0 (39.2)	.93
C. Impact on life	2.53	1.0 (30.6)	1.46
Habit 3: Demonstrate Empathy			
A. Encourage emotional expression	2.98	2.0 (19.6)	1.34
B. Accept feelings	2.33	1.0 (29.9)	1.25
C. Identify feelings	2.27	1.0 (34.7)	1.24
D. Show good nonverbal behavior	3.75	5.0 (22.9)	1.06
Habit 4: Invest in End			
A. Use patient's frame of reference	4.14	5.0 (44.2)	.97
B. Allow time to absorb	3.57	Tie 3.0, 5.0 (21.9)	1.09
C. Give clear explanations	4.54	5.0 (59.4)	.67
D. Offer rationale for tests	3.82	5.0 (26.0)	.97
E. Test for comprehension	1.56	1.0 (58.2)	.88
F. Involve in decisions	3.11	3.0 (25.8)	1.11
G. Explore plan acceptability	2.25	1.0 (27.8)	1.12
H. Explore barriers	2.24	1.0 (25.8)	1.15
I. Encourage questions	2.20	1.0 (37.9)	1.24
J. Plan for follow-up	4.04	5.0 (31.6)	.87

Higher scores indicate physician behavior that is more positive.

3.2. Associations with other measures

3.2.1. 4HCS and RIAS categories

The correlations between each of the summed scores for the Four Habits and the RIAS categories are presented in Table 2. Habit 1, Invest in the Beginning, was significantly associated with the RIAS category personal talk. Habits 2 and 3, Elicit the Patient's Perspective and Demonstrate Empathy, were both significantly associated with the same four RIAS categories: positive talk, emotional talk, asking psycho-social questions, and giving psychosocial information. Habit 4, Invest in the End, was associated with asking psychosocial questions and giving medical information.

Several correlations were found among components of the 4HCS and RIAS categories. Notable among these were: greeting the patient warmly (Habit 1) with personal and positive talk; exploring the patient's perspective (Habit 2) with positive talk and open-ended questioning; encouraging the patient to express emotion (Habit 3) with emotional talk and psycho-social questioning; and using the patient's frame of reference (Habit 4) with open-ended questioning and offering medical information.

3.2.2. 4HCS and back channel responses

The number of back channel responses made by the clinicians was significantly correlated with each of Habits 2–4. More specifically, back channel responses were significantly associated with identifying the patient's perspective on the problem and the impact of the problem on the patient's life (Habit 2); identifying the patient's feelings and displaying proper nonverbal behavior (Habit 3); and offering

Table 2
Correlations of Four Habits scores and other measures

	Habit 1	Habit 2	Habit 3	Habit 4
RIAS				
Personal talk	.28**	.08	.09	.01
Positive/partnership talk	.16	.29**	.23*	.14
Emotional talk	.18	.30**	.37**	.07
Open questions asked	−.07	.18	.02	.12
Closed questions asked	−.07	.14	−.01	.13
Psycho-social questions asked	.11	.37**	.27**	.20*
Medical information given	.08	.18	.16	.21*
Psycho-social information given	.04	.20*	.25**	.13
Back channel responses	.16	.41**	.26**	.29**
Nonverbal behavior				
Smiles	.42**	.17	.32**	.27**
Nods	.32**	.34**	.27**	.26**
Eye contact avoided	−.16	−.05	−.27**	−.05
Duration of visit	.25*	.23	.26**	.28**
Post-visit evaluations				
Informativeness	.01	−.09	−.10	−.02
Respect/consideration	−.07	.03	−.13	−.05
Competence	.03	−.08	−.17	−.07

* $p < .05$
** $p < .01$

clear explanations, allowing the patient time to absorb information,, and making plans for follow-up (Habit 4).

3.2.3. 4HCS and non-verbal behaviors

Four Habits ratings and the indicators of non-verbal behavior were consistently related (see Table 2). As might be expected, Habit 3 was correlated with each of the nonverbal measures. Among its components, smiling and nodding were correlated with encouraging, identifying, and validating patients' emotions. The amount of time avoiding eye contact was negatively correlated with clinicians' identification of feelings and showing appropriate nonverbal behavior.

3.2.4. 4HCS and post-visit evaluations

Correlations between each of the three domains of post-visit evaluation and each of the Four Habits failed to reach statistically significant levels. A few 4HCS sub-categories reached statistical significance, but no clear or consistent patterns could be identified.

3.2.5. 4HCS and length of visit

The average visit length of all the visits studied was 14.32 min. Total time was associated with each of the summed Four Habits (see Table 2). For Habit 1, time was specifically correlated with expressing familiarity with the patient and encouraging the patient to expand on his/her concerns; for Habit 2 with exploring the patient's understanding of the problem; for Habit 3 with encouraging expression of emotion and identifying the patient's feelings; and for Habit 4 with framing information using the patient's frame of reference and allowing the patient time to absorb the information.

Looking at each of the seven sub-categories for which time and behavior were associated, we split the distribution for each of the sub-category ratings at the median and calculated the mean length of the visit when the Habit was performed above or below the cutoff. On average, visits in which these seven behaviors were performed at a level above the median was 16.1 min, whereas the mean visit time in which these behaviors were performed below the median was 12.5 min, a difference of 3.6 min.

4. Discussion

Our results indicate that the Four Habits Coding Scheme is a reliable and valid instrument that shows promise of practical utility. Concerning its reliability, the inter-rater coefficients, which ranged between .69 and .80, are at generally satisfactory levels, but they are not quite as high as some other instruments. Compared to coding schemes that use frequency counts or ratings of present versus absent, inter-rater reliability is harder to achieve with the 4HCS, first, because the families of skills it measures are more broadly defined; and second, because it is easier to determine whether a behavior has been performed or not than whether it has been performed skillfully.

Although reliability may suffer somewhat, Stiles [20] has argued for the utility of evaluative over descriptive ratings, noting that evaluative measures implicitly contextualize behavior by taking into account the physician's responses to the demands of the situation (e.g., sometimes it may be appropriate for the physician to ask many questions and sometimes it may not). Therefore, it is not so much the number of questions asked (i.e., a description of the behavior) as their appropriateness (as evaluated by the rater) that should be of greatest interest and utility.

Concerning the internal consistency of the 4HCS, the alpha coefficients for the Four Habits ranged from .51 to .81, indicating that component behaviors within a given Habit did not always go closely together. This is less a cause for concern than it might ordinarily be because the Four Habits Model does not seek to capture sets of behaviors that that are associated *in actuality*, but rather sets of behaviors that would be found together *in the ideal*. Rather than revise the organization of the items to reflect the *current* mode of practice, the Model and the 4HCS can be used as a template to guide *future* practice. With successful training of clinicians in communications skills, the behaviors of clinicians can be shaped toward more effective communication, which would result in greater internal consistency of the behaviors.

Preliminary evidence for the construct validity of the 4HCS comes from the associations of 4HCS ratings with the other available measures. The correlations of 4HCS ratings with RIAS categories, ratings of nonverbal behavior, back channel responses, and visit time provide solid evidence of the instrument's validity. For instance, Habit 1 has as one of its main goals establishing rapport between patient and physician, and we found significant associations between RIAS ''personal talk'' and 4HCS ''warm greetings.'' The correlation of back channel responses with the 4HCS behaviors of encouraging patients to express their concerns and eliciting the patient's agenda also point to the construct validity of the 4HCS.

The associations of several 4HCS components with visit time indicate that it took an additional 3.6 min to practice the Four Habits at a high level. This finding is particularly relevant in light of a report that a difference of three minutes in primary care visits differentiated clinicians who had been sued at least twice for medical malpractice from those who had never been sued at all [21].

Since all of the previous findings were consistent with expectations for the 4HCS, the lack of correlation between 4HCS ratings and patients' post-visit evaluations was surprising. A closer look at the post-visit questionnaire and the distribution of responses on it, however, suggests that it was a far less than ideal criterion measure. For instance, on the combined patient rating of the three item Physician Competence scale, 88.5% of the scores were at 6.0, the highest possible score, leaving very little variance to be accounted for by 4HCS ratings. The distribution of the two other post-visit sub-scales, while not quite as skewed,

also showed a tendency for the scores to fall at the high extreme. Future research will need to utilize better outcome measures against which to judge validity.

The conclusions of this study have several limitations. The tapes came from a limited number of practitioners at one practice site, and were all repeat visits. Before our findings can be generalized, additional work will need to be done with a different case mix and a greater number and variety of clinicians at various sites, ideally looking at multiple visits per practitioner to determine the extent to which any given physician practices the Four Habits across patients and with differing medical problems. An expanded and revised code book was developed from the authors' experience in this initial coding study, and it is anticipated that 4HCS training will become more efficient and result in higher levels of inter-rater reliability as a result. Finally, research is currently under way using the 4HCS to code the behaviors of groups of clinicians who have been identified as consistently high or low in patient satisfaction, and this may provide a better criterion against which to test of the validity of the 4HCS.

5. Conclusions and practice implications

In this initial test, we have demonstrated that the 4HCS has many of the psychometric characteristics of a useful instrument, most notably construct validity in relation to the RIAS, back channel responses, and several indicators of non-verbal behavior. Because this instrument clusters clinicians' behaviors and measures them in a way that is different from other current instruments, it stands independently as a useful addition to the field of research in physician communication.

The unique contribution of the 4HCS, however, lies in its relationship to the Four Habits Model. The Four Habits Model has played a major role in the teaching of communication skills in Kaiser Permanente. Programs based on this model have been shown to lead to significantly increased patient satisfaction which is sustained over time [1]. In addition, the model has branched out into areas as diverse as geriatric care, training for cultural competence, and cost conversations with patients. By combining assessment with a conceptually based model for practice and a diverse range of teaching programs to a very wide range of clinicians (end of life caregivers to medical students to veterinarians), the Four Habits Coding Scheme holds possibilities that most instruments do not. The 4HCS, in conjunction with skills training that is consistent with the Four Habits Model, has the potential not only to describe and assess clinician behavior, but to shape it as well.

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Appendix A. Four Habits Coding Scheme

Habit 1. Invest in the Beginning

5. Clinician indicates clear familiarity with patient's history/chart (e.g., mentions recent tests performed or visit information based on previous chart notes).
3. Clinician makes some reference to past visits or history, but familiarity with these does not seem strong.
1. Clinician needs to refer to chart continually to familiarize self with case or does not relate current visit with patient's history or chart (or does not even have chart).
5. Patient is greeted in manner that is personal and warm (e.g., clinician asks patient how s/he likes to be addressed, uses patient's name).
3. Patient is greeted in manner that recognizes patient, but without great warmth or personalization.
1. Greeting of patient is cursory, impersonal, or non-existent.
5. Clinician makes non-medical comments, using these to put the patient at ease.
3. Clinician makes cursory attempt at small talk (shows no great interest, keeps discussion brief before moving on).
1. The clinician gets right down to business without any attempt at small talk (or cuts patient off curtly and abruptly, or if later in visit, shows only passing interest).
5. The clinician tries to identify the problem(s) using primarily open-ended questions (asks questions in a way that allows patient to tell own story with minimum of interruptions or closed ended questions).
3. The clinician tries to identify the problem(s) using a combination of open and closed ended questions (possibly begins with open-ended but quickly reverts to closed ended).
1. The clinician tries to identify the problem(s) using primarily closed-ended questions (staccato style).
5. The clinician encourages the patient to expand in discussing his/her concerns (e.g., using various continuers such as Aha, Tell me more, Go on).
3. Clinician neither cuts the patient off nor expresses great interest in learning more (listens, but does not encourage expansion or further discussion).
1. The clinician interrupts or cuts the patient off in his/her attempt to expand (is clearly not very interested).
5. The clinician attempts to elicit the full range of the patient's concerns by generating an agenda early in the visit (clinician does other than simply pursue first stated complaint).
3. The clinician makes some reference to other possible complaints, or asks briefly about them before pursuing

the patient's first complaint, or generates an agenda as the visit progresses.

1. The clinician immediately pursues the patient's first concern without an attempt to discover other possible concerns of the patient's.

Habit 2. Elicit the Patient's Perspective

5. Clinician shows great interest in exploring the patient's understanding of the problem (e.g., asks the patient what the symptoms mean to him/her).
3. Clinician shows brief or superficial interest in understanding the patient's understanding of the problem.
1. Clinician makes no attempt/shows no interest in understanding the patient's perspective.

5. Clinician asks (or responds with interest) about what the patient hopes to get out of the visit (e.g., can be general expectations or specific requests such as meds, referrals).
3. Clinician shows interest in getting a brief sense of what the patient hopes to get out of the visit, but moves on quickly.
1. Clinician makes no attempt to determine (shows no interest in) what the patient hopes to get out of the visit.

5. Clinician attempts to determine in detail/shows great interest in how the problem is affecting patient's lifestyle (work, family, daily activities).
3. Clinician attempts to determine briefly/shows only some interest in how the problem is affecting patient's lifestyle.
1. Clinician makes no attempt to determine/shows no interest in how the problem is affecting patient's lifestyle.

Habit 3 Demonstrate Empathy

5. Clinician openly encourage/is receptive to the expression of emotion (e.g., through use of continuers or appropriate pauses (signals verbally or nonverbally that it is okay to express feelings).
3. Clinician shows relatively little interest or encouragement for the patient's expression of emotion; or allows emotions to be shown but actively or subtly encourages patient to move on.
1. Clinician shows no interest in patient's emotional state and/or discourages or cuts off the expression of emotion by the patient (signals verbally or nonverbally that it is not okay to express emotions).

5. Clinician makes comments clearly indicating acceptance/validation of patient's feelings (e.g., I'd feel the same way ... I can see how that would worry you ...).
3. Clinician briefly acknowledges patient's feelings but makes no effort to indicate acceptance/validation.
1. Clinician makes no attempt to respond to/validate the patient's feelings, or possibly belittles or challenges them (e.g., It's ridiculous to be so concerned about ...).

5. Clinician makes clear attempt to explore patient's feelings by identifying or labeling them (e.g., So how does that make you feel? It seems to me that you are feeling quite anxious about ...).
3. Clinician makes brief reference to patient's feelings, but does little to explore them by identification or labeling.
1. Clinician makes no attempt to identify patient's feelings.

5. Clinician displays nonverbal behaviors that express great interest, concern and connection (e.g., eye contact, tone of voice, and body orientation) throughout the visit.
3. Clinician's nonverbal behavior shows neither great interest or disinterest (or behaviors over course of visit are inconsistent).
1. Clinician's nonverbal behavior displays lack of interest and/or concern and/or connection (e.g., little or no eye contact, body orientation or use of space inappropriate, bored voice).

D. Invest in the End

5. Clinician frames diagnostic and other relevant information in ways that reflect patient's initial presentation of concerns.
3. Clinician makes cursory attempt to frame diagnosis and information in terms of patient's concerns.
1. Clinician frames diagnosis and information in terms that fit physician's frame of reference rather than incorporating those of the patient.

5. Clinician pauses after giving information with intent of allowing patient to react to and absorb it.
3. Clinician pauses briefly for patient reaction, but then quickly moves on (leaving the impression that the patient may not have fully absorbed the information).
1. Clinician gives information and continues on quickly with giving patient opportunity to react (impression is that this information will not be remembered properly or fully appreciated by the patient).

5. Information is stated clearly and with little or no use of jargon.
3. Information contains some jargon and is somewhat difficult to understand.
1. Information is stated in ways that are technical or above patient's head (indicating that the patient has probably not understood it fully or properly).

5. Clinician fully/clearly explains the rationale behind current, past, or future tests and treatments so that patient can understand the significance of these to diagnosis and treatment.
3. Clinician only briefly explains the rationale for tests and treatments.
1. Clinician offers/orders tests and treatments, giving little or any rationale for these.

5. Clinician effectively tests for the patient's comprehension.
3. Clinician briefly or ineffectively tests for the patient's comprehension.
1. Clinician makes no effort to determine whether the patient has understood what has been said.

5. Clinician clearly encourages and invites patient's input into the decision making process.
3. Clinician shows little interest in inviting the patient's involvement in the decision making process, or responds to the patient's attempts to be involved with relatively little enthusiasm.
1. Provider shows no interest in having patient's involvement or actively discourages/ignores patient's efforts to be part of decision making process.
5. Clinician explores acceptability of treatment plan, expressing willingness to negotiate if necessary.
3. Clinician makes brief attempt to determine acceptability of treatment plan, and moves on quickly.
1. Clinician offers recommendations for treatment with little or no attempts to elicit patient's acceptance of (willingness or likelihood of following) the plan.
5. Clinician fully explores barriers to implementation of treatment plan.
3. Clinician briefly explores barriers to implementation of treatment plan.
1. Clinician does not address whether barriers exist for implementation of treatment plan.
5. Clinician openly encourages and asks for additional questions from patient (and responds to them in at least some detail).
3. Clinician allows for additional questions from patient, but does not encourage question asking nor respond to them in much detail.
1. Clinician makes no attempt to solicit additional questions from patient or largely ignores them if made unsolicited.
5. Clinician makes clear and specific plans for follow-up to the visit.
3. Clinician makes references to follow-up, but does not make specific plans.
1. Clinician makes no reference to follow-up plans.

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