HEALTH COMMUNICATION, *14*(3), 299–338

Presenting the Problem in Pediatric Encounters: "Symptoms Only" Versus "Candidate Diagnosis" Presentations

Tanya Stivers

Department of Pediatrics—General Pediatrics
University of California at Los Angeles

This article examines 2 practices that are used to present children's problems to their pediatricians in acute care encounters. Using the methodology of conversation analysis, this article examines the alternative stances embodied by problem presentations, which offer "symptoms only" versus problem presentations, which also include a "candidate diagnosis." This article suggests that parents who offer only symptoms in their problem presentations are hearable as adopting a stance that they are primarily seeking medical evaluations of their children. By contrast, a parent who includes a candidate diagnosis of the problem is hearable as adopting a stance that he or she is seeking confirmation of the diagnosis and treatment for that illness condition. This communication practice may be treated by physicians as placing pressure on them to prescribe treatment—in particular antibiotic treatment. The implications of this are discussed.

Acute visits to pediatricians normally involve parents relating their children's problems to physicians.[1] In presenting their children's problems, parents not only describe their children's conditions, they may also communicate information about what symptoms they are worried about, their levels of concern, their theories of what is wrong, and whether and how they think the problems should be treated. This article describes two practices for presenting the problem. The first practice,

Requests for reprints should be sent to Tanya Stivers, University of California at Los Angeles, Department of Pediatrics—General Pediatrics, 12–358 Marion Davies Children's Center, 10833 Le Conte Ave., Los Angeles, CA 90095–1752. E-mail: tstivers@ucla.edu

[1]Children are frequently selected to present their reason for the visit, although parents are more likely to actually offer the problem presentation (Stivers, 2001). In addition, it is quite rare for a child to offer a possible diagnosis.

which involves a description of the children's symptoms (e.g., "He has a rash all over his body"), is termed *symptoms only*. The second practice, which includes the addition of a possible diagnosis (e.g., "We were thinking she has an ear infection because she's been having pain"), is termed a *candidate diagnosis.* Subsequently, this article examines how these two practices affect the way physicians offer diagnostic and treatment information later in the encounter. In particular, it is shown that when a parent describes his or her child's problem by including a candidate diagnosis of the problem, physicians can be seen to (a) treat parents as seeking confirmation or disconfirmation of their suggested diagnosis and (b) treat parents as seeking antibiotic treatment. This area of study is important because existing research shows a strong association between physicians' perceptions of patient–parent pressure for antibiotic treatment and inappropriate prescribing of antibiotics (Britten & Ukoumunne, 1997; Cockburn & Pit, 1997; Hamm, Hicks, & Bemben, 1996; Himmel, Lippert-Urbanke, & Kochen, 1997; Macfarlane, Holmes, Macfarlane, & Britten, 1997; Virji & Britten, 1991). However, research has not yet examined the physician–parent and physician–patient encounter to investigate how parent pressure is communicated to the physician. Some research has suggested that such pressure would typically take the form of explicit requests for antibiotic treatment (Barden, Dowell, Schwartz, & Lackey, 1998; Butler, Rollnick, Pill, Maggs-Rapport, & Stott, 1998). However, using one communication practice as an example, this article argues that less direct types of communication may also convey pressure to physicians to prescribe antibiotic treatment.

DATA AND METHOD

Two samples were used for this study. In the first sample (Sample A) 306 visits were audiorecorded in two private pediatric practices with 10 participating physicians, of which 295 visits involving 8 physicians were analyzed. The remaining 11 visits were excluded because of incomplete data either with the audiotapes or the survey completion.[2] Children were ages 2 to 10 years and had a presenting complaint of ear pain, throat pain, cough, or congestion. In the second sample (Sample B) 150 visits were videorecorded in four private pediatric practices with 6 participating physicians including both routine well-child and acute visits. A subset of 65 acute visits were used in this project. Data for both samples were collected between September 1996 and June 1997. Informed written consent was obtained from all participating parents and physicians in both samples. For purposes of anonymity,

[2]This article represents one portion of a larger study and does not report results that rely on survey instruments, although both a previsit and postvisit survey of parents and a postvisit survey of physicians were administered.

pseudonyms replace any use of a participant's name or other identifying information (e.g., school names). The data were transcribed according to the conventions originally developed by Gail Jefferson (as outlined by Atkinson & Heritage, 1984; see Appendix A for conventions). Of the total 360 acute encounters from which this article was drawn, the cases that are discussed were selected because they represent especially clear examples of the phenomena.

Conversation analysis (CA) was used as a method for analyzing the audiotaped and videotaped data (see Heritage, 1984, for a summary). CA examines the social actions that interactants accomplish in and through interaction (e.g., greetings, requests, and invitations) focusing on sequences of interaction rather than restricting analyses to isolated sentences or phrases. This focus is premised on the idea that analysts' understandings of participants' social actions can be validated through an examination of interactants' responses.

In examining social interaction in sequential terms, CA looks for patterns in the interaction that form evidence of systematic use such that it can be identified as a practice, through which people accomplish a particular social action either vocally or nonvocally. For example, from ordinary interaction contexts, the following can be seen: practices for opening telephone conversations (Schegloff, 1968, 1986), practices for gaining help in searching for a word (Goodwin & Goodwin, 1986), or practices for inviting another interactant to complete one's turn at talk (Lerner, 1996). Within CA research on medical encounters, researchers have identified a variety of practices in practitioner–patient interaction. For example, researchers have discussed practices for opening the encounter (Heath, 1981; Robinson, 1998, in press), practices for delivering diagnoses (Maynard, 1992; Peräkylä, 1998), and practices for the initiation of advice giving in health visitor–mother encounters (Heritage & Sefi, 1992). To be identified as a practice, a particular communication behavior must be seen as recurrent and routinely treated by a recipient in a particular way such that it can be discriminated from related or similar practices. The significance of these practices can be understood in terms of (a) the immediate sequences in which they occur, (b) the larger activities in which they are embedded (Heritage & Sorjonen, 1994), and (c) the overall organization of the phases in the interaction. The latter two levels of organization are of particular significance when CA is used to analyze interaction in institutional contexts due to the general goal orientation of participants to institutional interactions (Drew & Heritage, 1992).

Utilizing CA as a primary method, this study examines physician–parent encounters in detail to observe, from a qualitative perspective, whether (a) there were patterns in the types of communication behaviors used by parents to talk about their children's illnesses and (b) whether physicians could be seen to discriminate between these behaviors in terms of the stances parents were treated as taking toward their children's illnesses and the medical encounters. In addition, CA was used to inform the coding of cases for the practices focused on in this article. The

portion of the coding scheme that is relevant to the results being presented here is outlined in Appendix B.[3]

BACKGROUND

Researchers have discussed the problem presentation as an important component of the medical encounter for several reasons. An accurate and thorough description of the patient's problem is needed for a physician to provide a correct diagnosis (Ong, de Haes, Hoos, & Lammes, 1995; Pendleton, 1983). Related to this, the problem presentation allows patients to formulate their problem or concern in their own words (Swartz, 1998) and allows for the inclusion of both biomedical and lifeworld dimensions of the problem and their impact on the patient (Fisher, 1991; Frankel, 1984; Mishler, 1984). The problem presentation has also been an area of interest because physicians must determine when patients are done presenting their complaint. Some researchers have suggested that patients are routinely interrupted or redirected too soon; thus, not adequately achieving a "survey of problems" (Lipkin, 1997) and not allowing patients sufficient time to explain all of their problems and concerns (Beckman & Frankel, 1984; Marvel, Epstein, Flowers, & Beckman, 1999). In addition, the problem presentation has been examined as an interactional activity in its own right. Robinson (1999) examined different question designs physicians use for soliciting the problem presentation and the effect of the turn design on the interaction. Ruusuvuori (2000) examined several key aspects of the problem presentation, including how patients begin and end their problem presentations and vocal and nonvocal resources for holding the floor during their presentation.

Heritage (in press) looked at the problem presentation as an environment in which patients work to establish that their problem is "doctorable" or "worthy of evaluation as a potentially significant medical condition, and worthy of medical attention and, where necessary, medical treatment" (Heritage, in press, p. 2). He argued that patients work to accomplish this in several ways: (a) Patients routinely attribute their motivation for seeking medical help to a third party (e.g., another physician, a spouse, or a friend); (b) patients regularly display what Jefferson (1980, 1988) originally termed *troubles resistance*, meaning that patients work to show that they did not rush to the doctor at the first sign of illness, that they attempted to manage their condition prior to seeking help, or that they provide "objective" evidence that their problem is significant (e.g., with respect to shoulder pain a patient says she cannot latch a seat belt); (c) patients rarely offer diagnoses of their condition and furthermore orient to this as a behavior to be avoided (see

[3]Coding was done by the author and recoding was done with a 15% sample to assess intracoder reliability. For the coding discussed here, the interpretive reliability was assessed using Cohen's kappa. Scores ranged between .73 and .93, indicating levels of reliability from acceptable to very good.

Gill, 1998) except in cases in which they propose benign diagnoses. To the extent that Heritage (in press) and Gill (1998) are correct within the adult patient context, the ways parents communicate about their children's conditions are substantially different.

The problem presentation in a medical encounter is similar to other institutional openings that have been shown to affect later activities in the interaction including the way it is addressed or the remedy that is suggested. For example, the way a problem is presented to 911 call takers can affect whether they agree to dispatch help immediately following the problem presentation (e.g., see Whalen & Zimmerman, 1987; Whalen, Zimmerman, & Whalen, 1988). Boyd (1997, 1998) showed that the way interactions are opened can not only have interactional consequences but can also affect whether the request being made is granted. She explored medical peer review telephone calls, in which physician–reviewers representing a national utilization review firm call physicians who have proposed the surgical insertion of tympanostomy tubes for the management of recurrent ear infections. The reviewers, at the end of the phone call, approve or decline the surgery on behalf of the patient's insurance company. She found the formulation the reviewer employed in moving to the business of the call was significantly related to whether the surgery was approved. In addition, Boyd (1997) found that in cases in which the reviewer's decision was negative, certain initiating formulations were associated with less interactional conflict. Although this research involves relating the same speaker's actions (i.e., the speaker's openings and his or her decisions), it shows the importance of the opening as an activity in these contexts.

In distinguishing between two primary forms of problem presentation, this article describes alternative responses by physicians that display different analyses of the parent's stance toward his or her child's illness. Specifically, in cases in which the child's problem is presented using a symptoms-only description, parents are treated as having adopted the stance that they are primarily seeking medical evaluations of the children. By contrast, in cases in which the children's problems are presented using a candidate diagnosis, parents are treated as having adopted a stance that they are seeking confirmation of their diagnoses and seeking treatment for the illness condition. Each of these patterns will be discussed, in turn, in the following sections.

PHYSICIAN'S OPENING QUESTIONS

Physicians solicit the reason for the patient's visit in a variety of different ways. They often solicit patients' problems using a somewhat open format such as "How can I help you today?" This format is the most common, and it occurred in 49% of cases in these data. Alternatively, physicians provide a candidate understanding based on the nurse's notes in the patient's chart (e.g., "So you're

coughing huh?"). This formulation was used in 18% of cases. Finally, physicians treat the reason for visit as having been established and begin with a history taking question (e.g., "How long has this cough been going on?"). This format occurred in 12% of cases. In 16% of cases no solicitation occurred (e.g., the patient preemptively presented his or her problem), and in 5% of cases due to the late beginning of recording the presence of a solicitation could not be determined. Among the most common problem presentation and problem solicitation types, there was no significant association between the type of physician solicitation and the problem presentation type, $\chi^2(2, N = 181) = 3.7664$, $p = .152$. Regardless of the solicitation, patients–parents nonetheless regularly present their problems in their own words, although problem presentations were most frequent following an open format solicitation. In these data, problem presentations occurred in 79% of cases.[4]

SYMPTOMS-ONLY PROBLEM PRESENTATIONS

The most common way in which children's problems are presented is with a symptoms-only presentation. This terminology underscores the fact that the problem presentation offers only a description of the problems the child is experiencing and does not attempt to identify the illness condition. This type of problem presentation occurred in 52% ($n = 151$) of the total problem presentation cases. For an example, see Extract 1.

(1) 202 (Little Red Spots)

1	DOC:	O:kay: R<u>o</u>bert.
2		(0.5)
3	DOC:	What's up.=h
4	BOY: →	Uhm I have these little red s:p<u>o</u>ts all over
5		my body.
6		(0.5)
7	BOY: →	An:'- we don't know what they are: (really)

In this case, the boy first offers his primary symptom (lines 4–5). As a response to "What's up." (line 3) the telling of his primary symptom displays his orientation to that symptom as being the reason for their visit. Then, after a bit of silence, he

[4]For the purposes of this article and the practices described here, the problem presentation refers to a full description of the child's condition typically following the physician's opening question. As mentioned previously, in some cases this follows a history taking question but in that situation there must not have been an earlier problem presentation or symptom description. Mentions of additional symptoms, diagnostic theories, or concerns in later positions will not be considered here.

adds a second turn constructional unit (TCU),[5] which emphasizes his and his father's (and perhaps his family's) concern for a diagnosis of this symptom (line 7). With this second unit "An:' - we don't know what they are: (really)" the boy focuses on the evaluation of the spots as the reason for his visit. By contrast, the question of whether the spots are treatable (i.e., treatable with prescription medication) is not raised and is thus understandably left contingent on the evaluation. In this case, there is no orientation to the spots as in need of prescription treatment; rather, there is a focus on the diagnosis. This case is unusual because the boy explicitly indexes their desire for a diagnosis of the illness. It is more common for the request for evaluation to be left implicit but nonetheless to be the underlying reason for visiting. This can be seen in Extracts 2 and 3.

(2) 1188 (Dr. 3)

1	DOC:		And so: do- What's been b<u>o</u>thering her.
2			(0.4)
3	MOM:	→	Uh:m she's had a c<u>o</u>u:gh?, and stuffing- stuffy
4		→	n<u>o</u>:se, and then y<u>e</u>sterday in the afternoo:n she
5		→	started tuh get #really goopy eye:[s, and every=
6	DOC:		[Mm hm,
7	MOM:	→	=few minutes [she was [(having tuh-).
8	DOC:		[.hh [Okay so she ha-
9			so when she woke [up this morning were her eyes=
10	MOM:		[( )
11	DOC:		=all stuck shut,

Here, in line 1 the physician solicits the reason for the child's visit with an open solicitation. The mother describes several symptoms in response. In lines 3 to 5, and line 7 she lists a cough, a stuffy nose, and "goopy" eyes. As was the case with the symptoms offered in Extract 1, here too the mother makes no inference about the cause of the problem but simply states the symptoms as the basis for the visit. Whether the mother believes that the child's condition is treatable is not disclosed in her problem presentation. Rather, the presentation offers only symptoms for evaluation and thus leaves it to the physician to determine whether and how the condition will be treated.

In stating symptoms-only the parent communicates an orientation to the child's problem as in need of evaluation but as only potentially treatable. This can be seen again in Extract 3.

[5]The concepts of turns at talk and the turn constructional units that comprise them are identified and discussed by Sacks, Schegloff, and Jefferson (1974).

(3) 2058 (Dr. 5)

1	DOC:		And what's going on with you:,
2			(2.0)
3	BOY:		(°Well-°) (0.4)
4	MOM:	→	.tlkh He ha:s uh: rash all over his body,
5	DOC:		Uh [huh:,
6	MOM:	→	[Like head to toe,
7			(0.6)
8	MOM:	→	An:d uh:m he ha:s uh #fever#,='e's ((kid making noise))
9		→	uh hundred 'n one today,
10	DOC:		Mm hm:?,=
11	MOM:		=Stop it- Stop that. (Jack. Stop it.) ((to child))
12			(0.8)
13	MOM:	→	He's had uh fever for two day:s, He's had
14		→	[uh persistent cough=for uh few weeks,
15	DOC:		[Mm hm,
16	DOC:		Uh huh?,
17	MOM:	→	[But it w=(h)asn't been bad enough to bring him in,
18	DOC:		Uh huh?
19	MOM:	→	And he's (complai:ned) for- uhm- (0.3)
20	DOC:		(.ml[h)
21	MOM:	→	[two days about uh stomach:=ache_ uh: (.) stomach
22		→	cramping.
23			(1.0)
24	DOC:		.Tlkh n– n– uhm: for two days?
25	MOM:		#Yeah:. (an it started yesterday.)

The physician solicits the problem with an open question about the boy's medical problem. The mother, in response, offers several symptoms. She mentions a rash (line 4), a fever (lines 8 and 13), a cough (line 14), and a stomach ache (lines 19 and 21–22). As in the other extracts shown thus far, the mother does not offer any theory of what is causing these problems but only details the symptoms. In doing so, she treats the symptoms as problematic and as the reason for seeking medical help. For example, the mother calls the cough "persistent," which treats it as problematic. In addition, with "it w=(h)asn't been bad enough to bring him in," (line 17) the mother deploys a common practice for emphasizing the gravity and doctorability of the child's condition (Heritage, in press). The self-repair from "wasn't bad enough" in the simple past tense to "hasn't been bad enough" using the present perfect also suggests a progression of his condition to the current state in which he is in need of an evaluation (Bybee, Perkins, & Pagliuca, 1994). The parent here suggests that a certain measure of symptoms may not require medical

attention, but with an accumulation of symptoms, the mother now feels the need for a medical evaluation. Part of this evaluation may include treatment. However, the parent remains effectively silent on this topic thus embodying an agnostic stance on the treatability of the child's condition.

I examine one communication practice for outlining the reason for visiting—a symptoms-only problem presentation. In using this communication practice, parents convey that their reason for visiting is to have medical evaluations of their children's conditions and to seek advice for the management of those conditions. As noted earlier, this type of problem presentation was most common, and as has been shown, is oriented to as "standard" or as the "default" in the sense that physicians treat this type of presentation as doing nothing special. This will be discussed in more detail shortly.

CANDIDATE DIAGNOSIS PROBLEM PRESENTATIONS

An alternative practice parents use to present their children's problems involves the mention of a candidate diagnosis.[6] This type of problem presentation formulation was less frequent than symptoms-only occurring in 16% ($n = 47$) of these data. Although not a frequent communication behavior, this frequency is nonetheless at odds with existing research in the adult context, which suggests that patients rarely offer diagnoses (Gill, 1998; Heritage, in press; Ruusuvuori, 2000). Reasons for this may include patients' orientations to the physician's expertise as well as to a reluctance to voice more serious diagnostic possibilities. Heritage (in press) suggested that patients may introduce diagnostic claims in support of the doctorability of their problem in cases in which a condition has been previously diagnosed or in cases in which a rather benign explanation is possible. In addition, Gill (1998) asserted that when patients do offer their own theories of causation, they frame them as a delicate action either by downgrading the certainty of their theory or by offering them speculatively. Ruusuvuori (2000) suggested that such tentative framing of a diagnostic suggestion suggests patients' orientations to the action as stepping into "medical territory" (p. 165). Although candidate diagnoses appear to be more frequent in these data than in the adult context data, as will be seen, parents in these data do appear to orient to the action of offering a candidate diagnosis with similar delicacy. In what follows, in contrast to symptoms-only presentations, candidate diagnoses can be heard to convey a stance that the nature of the child's medical problem is already known and thus the reason for the medical visit is primarily to seek treatment for a condition that is already known.

---

[6]Gill (1998) discussed a related practice in which patients offer explanations for their illnesses. However, her examples are primarily located during history taking or later.

In Extract 4, in response to a problem solicitation (lines 1–2), the mother offers a candidate diagnosis (lines 4–5) and then offers the child's symptoms as evidence for the diagnostic conclusion (lines 8 and 11).

(4) 305 (No Affect)

1	DOC:		Al:ri:ght, well what can I do
2			[for you today.
3	MOM:		[(°hm=hm=hm=hm.°)
4	MOM:	→	.hhh Uhm (.) Uh- We're- thinking she might
5		→	have an ear infection? [in thuh left ear?
6	DOC:		[Okay,
7	DOC:		Oka:y,
8	MOM:		Uh:m because=uh: she's had some pain_
9			(.)
10	DOC:		[Alrighty?
11	MOM:		[over thuh weekend:(.)/(_) .h[h

The mother offers as her reason for visit the inference that her daughter has an identifiable and treatable problem (an ear infection). The claim is heavily mitigated (e.g., with "thinking" and "might" as well as with the strong questioning intonation). In addition, the diagnostic claim is offered with supporting evidence. That turn begins with "because" (line 8) suggesting that what will follow is the evidence for the prior inference. The observation provided is that the girl has had pain. In itself, this observation could have been offered as the reason for the visit. However, placed as it is here it is offered as an account for the candidate diagnosis. Despite the mitigation and the account that treat the action as delicate, the mother's turn in lines 4 and 5 nonetheless asserts the existence of an ear infection. Because this diagnosis suggests a treatable condition, it directly looks forward to a specific treatment recommendation—a prescription for antibiotics.

A similar situation can be seen in Extract 5. Here the doctor's question in line 1 is a history taking question; however, the mother responds with a fuller problem presentation including a candidate diagnosis.

(5) 615 (Lake Mead Vacation)

1	DOC:	.hh So how long has she been sick.
2		(1.2)
3	MOM:	Jus:t (.) I came down with it last Wednesday, so
4		she's probably had it (0.2)
5	DOC:	°Uh huh_°
6	MOM:	(Like) over- four days?
7		(1.0)
8	MOM:	An' she's been complaining of headaches.

9 (.)
10 MOM: → So I was thinking she had like uh sinus in[fection=
11 DOC: [.hhh
12 MOM: → =er something.=

With her TCU initial "So" (line 10), the mother formulates her candidate diagnosis, similar to that of the mother in Extract 4, as an inference based on her child's symptoms. Also similar to the mother in that extract, this mother downgrades the epistemic certainty of the diagnosis with "I was thinking," "like," and "er something." In this case the symptom of headaches precedes the conclusion offered by the mother as a candidate diagnosis—that the headaches are a symptom of an underlying sinus infection.

Another way that parents can work to mitigate explicit self-diagnosis is to further downgrade the authority embodied in their formulation. A candidate diagnosis can, for example, be offered speculatively. For example, see Extract 6. Here, although the presenting concern involves the recurrence of similar symptoms, this is not a follow-up visit but rather the child was treated for a condition previously, and the parent has initiated a new appointment for a new condition albeit similar to the last illness.

(6) 316 (A Little Pink)
1 DOC: Alrighty? Well- Here:=we go:! How're you do^ing.
2 MOM: Fine how're you.
3 DOC: I'm hanging in there:?, Well hi Matthew how're you[:.
4 PAT: [Fine,
5 (.)
6 MOM: .hh I brought 'im back because 'is- .hh He tu- we took
7 all thuh medication but he's been complaining of uh
8 sore throat off 'n o[n fer like uh week,
9 DOC: [O:kay?
10 MOM: .hh An' I [didn't (know)
11 DOC: [(You'll hafta) refresh my=uh: my-
12 MOM: He [had strep.
13 DOC: [horrible memory,
((12 lines of reviwing history not shown))
26 MOM: =But fer like thuh la:st week. Off 'n on he- he tells
27 me. (Not even just but) going he'll go "Mom my throat
28 is hurting again." An' I noticed it was pink.an'
29 I- (0.5)
30 DOC: [Huh huh huh-
31 MOM: → [(I-) I thought (0.5) maybe I better just- <I don't
32 → know if ya know strep has secondary er anything like

33 → that I wasn't sure. But he hasn't had thuh fever er
34 thuh nausea er anything that he'[s had before.
35 DOC: [O:kay:,
36 DOC: .hh [(Goo:d?,)
37 MOM: [But I thought since t'day's Veteran's Day 'n
38 they're off school it'd be easier fer me tuh bring
39 'im t'day than-

Here, the mother states her worry as a generalized possibility "I don't know if ya know strep has secondary er anything like that". This boy had a diagnosed strep throat infection several weeks prior to this encounter and was prescribed antibiotics. Here, the mother suggests that strep has "secondary." Secondary infections are bacterial infections that occur following a viral infection. A secondary throat or ear infection, for example, would normally be treatable with antibiotics. This use of secondary infection may be a confusion of secondary infections and relapses. Relapses normally involve the return of an infection after it has appeared to go away. However, despite any terminological confusion, what appears quite clear is that the parent is concerned that her son has another throat infection.

The mother initiates the move to business by offering her reason for the visit (line 6). Her initial reason for the visit is given as her son's complaint of a sore throat, despite the fact that he has completed a full course of medication (lines 7–8). After an intervening sequence about the history of the prior illness (omitted lines) the mother reasserts her son's symptoms by animating her son's complaint in direct reported speech (lines 27–28). Subsequent to this, she continues with her own observation of his symptoms (line 28) and her diagnostic inference (31–33) that her son has a type of secondary infection from strep throat. Again, this claim is mitigated—this time with "I don't know," "'er anything," and "I wasn't sure." However, even with the mitigation, the claim of infection makes treatment for that infection relevant. In this case the mother has taken a small step away from a direct statement of a diagnostic theory by formulating it as a speculation.

Mitigation can also be accomplished with indirection. When candidate diagnoses are offered indirectly as, for example, a statement about past illnesses, parents regularly formulate them without such mitigation (see Gill, 1998, on indirection). An example can be seen in Extract 7.

(7) P201 (Dr. 7)
1 DOC: An:- An' what didju bring her in: for today?
2 DAD: She had uh fever this morning,
3 DOC: Mm hm?,
4 DAD: .h An:d she's complai:ned of: uh pai:n in her left
5 ca:lf?,
6 (.)

7 DOC: Mm hm:?,
8 DAD: → <And we have ha:d> (1.0) some experience in
9 → thuh pa:st with s:inus::=sinusitis?
10 DOC: Mm hm?
11 DAD: .hh A:nd it was: (.) uh lo:ng ti:me being
12 diagnosed_=We had tuh go t' thee emergency room,
13 DOC: Mm hm::?,
14 DAD: Uh::m a:nd finally thuh doctor the:re
15 (a[t- could find it.) This was- (1.0) five months ago=
16 DOC: [Mm hm.
17 DAD: or so so-.hh So she has had something in the past,
18 <She's had her- .hh I think her knee was hurting in
19 thuh pa:st.
20 DOC: O:kay.
21 DAD: (An') they did x-rays ( )
22 (0.2)
23 DOC: Okay so she had fever: just today: it started,
24 (.)
25 DAD: Yeah.

Here, the father mentions that they have "some experience in thuh pa:st with s:inus::=sinusitis?" Although this does not directly state "I think she has a sinus infection," the father nonetheless communicates his belief that his daughter's condition may be sinusitis.

Whether direct or indirect, in each of these examples the parent does the following two primary things: (a) describes one or more symptoms that the child is experiencing and (b) offers an inference about the underlying diagnosis that is producing the symptom (or symptoms). As discussed earlier, when parents formulate their reason for the visit using a symptoms-only problem presentation, they make no claims about the treatability of their children's symptoms. They formulate their children's medical problems as, in the first instance, in need of a physician's evaluation. However, in these data, when parents formulate their children's conditions using a candidate diagnosis, they adopt the stance that their children's conditions are medically problematic and in need of some prescription treatment—overwhelmingly antibiotics. This will be discussed in more detail shortly.

Implied Candidate Diagnoses

The cases discussed thus far offer examples of candidate diagnoses that are clearly articulated. However, participants orient to "implied candidate diagnoses" in very similar ways. This type of problem presentation involves a hybrid of the two prac-

tices outlined thus far. That is, it involves the presentation of symptoms only; however, the symptoms are very specific. This specificity appears to communicate an implied particular bacterial condition. When compared to many formulations of symptoms, these "diagnosis implicative symptoms" involve a finer level of what Schegloff (1972, 2000) termed *granularity*. The first feature suggests that these problem presentations could be classified with other symptoms-only presentations because they involve no actual articulated diagnosis. However, the second feature suggests that when parents offer diagnosis implicative symptoms, they are hearably displaying their stance that their children have the implied condition and are thus in need of treatment.[7] In particular, they routinely employ a level of technical specificity that is relevant for a medical context rather than for an ordinary recipient (e.g., mentions of the color of nasal discharge or the color of spots in the throat) and is for that reason understood to imply a particular diagnosis. For example, a parent can mention that their child has a "barky" cough to index croup,[8] green nasal discharge to index sinusitis, or white or yellow spots on the child's throat to index strep throat. When a parent mentions a symptom such as one of these, they take up a similar stance to that taken up with an articulated-candidate diagnosis: They treat the symptoms as medically problematic and treatable. This type of problem presentation occurred in 10% (n = 30) of all cases.

One type of evidence that offering these specific sorts of symptoms works to index particular infections is that parents can show they have designed their presentation to convey their concern about a particular diagnosis. For example, in Extract 8 the mother asserts that she saw yellow spots on her daughter's throat (lines 10 and 12), which regularly index strep throat. Although the physician does not here reject strep throat specifically, he displays his orientation to the parent as having implied a diagnosis in his formulation of lines 17, 18, 20, and 21. That is, he treats "blisters" or "cold sores" as a position that contrasts with that of the parent. This is particularly accomplished with his mention of "actually" as a preface to his identification of the "spot" as "blisters" (line 17). The "actually" marks the finding as counter to what was previously offered (Clift, 2001; Schegloff, 1996).

(8) 1126 (Dr. 3)

1	MOM:	And I- s- she was complaining about her #throa:t.#
2	DOC:	Nkay:, an' she had uh fever last night?,
3		(.)

[7]Similar to candidate diagnoses, the treatment being sought may involve antibiotics or some alternative prescription treatment. Later, the argument will be developed that in general this practice is understood by physicians to be seeking antibiotic medication. Here, I simply identify and describe the communication practice.

[8]Croup is included (although the diagnosis implicative symptom is a viral one) because in these data the parent orients to it as a treatable condition rather than, as the doctor knows, an untreatable one.

4 MOM: Uh::- (.) uh little bit. so I- I kept plying her with
5 Tylenol just to help [#her throat pai:n.#
6 DOC: [>Okay,<
7 DOC: Sure.
8 (0.2)
9 MOM: → And then uh- I looked down her throat yesterday-
10 → last ni:ght, an' I could see thuh yellow:_
11 DOC: ^Okay.
12 MOM: → #spo:[t so:. ((trails off))
13 DOC: [.hh Well open up rea::l big. let's take
14 uh look an' (say-) say #"Ah:::[:::."=hh
15 GIR: [Ah::::=hh
16 DOC: .hh (0.5)
17 DOC: °Yeah:.° You know actually what those a:re °pr=h°
18 .hh are primarily blisters back there.
19 MOM: Yea:h?
20 DOC: It's almost like she's got cold sores in thuh
21 back of 'er throa:t.
22 MOM: (Oh:[::.)/(Aw:::.)
23 DOC: [And u:sually that'll go along with this just
24 being viral.
25 (.)
26 MOM: [Really.=
27 DOC: [#er-#
28 DOC: =Y:eah.
29 DOC: .hh
30 MOM: ⇒ One 'v thuh teachers told me it might be stre:p
31 ⇒ so:[:_
32 DOC: [.mlk Yeah we are starting to see some strep
33 so I'm gonna culture just in case .hh she's got
34 both going on at the same ti:me but- .hh when you
35 see: (you know)/(any uh) those #uh:# (thuh)/(that)
36 white stuff you see back there is- is really not:
37 like pus pus but it'[s ya know like she's got blisters n'
38 MOM: [Oh yeah:_
39 MOM: Oh:::.

That the parent's original diagnosis implicative symptom was designed to imply a bacterial candidate diagnosis is made explicit in line 30. Here, she identifies the diagnosis of concern as strep and further asserts an account for this concern: "One 'v thuh teachers told me it might be stre:p." Her turn final "so" retroactively casts her

suspicion of the spots as having been related to this teacher-offered candidate diagnosis. Although typically the implied diagnosis is not brought to the surface of the interaction, in this case there is clear evidence that the parent's mention of spots earlier in the encounter was specifically an indirect way of conveying her worry about strep. Here, the candidate diagnosis that was implied is attributed to a third party distancing the mother from the diagnosis that was previously discounted.

A similar case is shown in Extract 9. Here, following some detailing of symptoms (earlier in data not shown and here in lines 8–11 and 13), the doctor, in overlap, shifts into a joking examination of the girl's stomach. The mother returns to the symptoms and the problem presentation as the doctor's joking talk is reaching completion.

(9) 1050 (Dr. 1) ((just following some joking about responses to DOC's initial inquiry "What's up." … "the sky"))

1	DOC:		And what else.
2			(2.2)
3	MOM:		Tell thuh doctor what did you told me this morning.=
4			When I was brushing=uh (.) your hair.
5			(0.5)
6	MOM:		What=do you have.
7			(.)
8	GIR:		<Tu:mmya::che.>
9	DOC:		Uh tummyache.=[h
10	MOM:		[.h She's had (uh) fever for three
11			[days she's had a cold off an'=
12	DOC:		[Lemme feel y- ((move to examine girl's stomach))
13	MOM:		=o:n for about (three) days.
((14 lines not shown DOC begins exam feeling child's stomach—joking))			
28	MOM:	→	I thought I saw the little white (.) dot[s,
29	DOC:		[.h There was one
30			little sp:o:t_ but it didn't look -too ba:d.
31	MOM:	→	Because sh- there's strep throat goin' around
32		→	[in her class an:- an' I can't seem to get rid of=
33	DOC:		[Yeah: w-
34	MOM:		=this (.) co:ld an'_ .h she's been-
35	DOC:		Turn your hea:d,
36	MOM:		really high fevers.

Here, the mother offers another symptom—this one a diagnosis implicative symptom (line 28). The mother says she saw "the little white (.) dots." With the definite article "the," she conveys that these dots are specific and have a meaning previously established. In addition, this symptom hearably indexes a diagnosis of

strep throat. In response, the doctor rejects that the dots are problematic (lines 29–30). Subsequently, the mother makes explicit that the diagnosis she was alluding to with the diagnosis implicative symptom was strep throat (line 31). However, this more overt taking of a stance toward the treatability is not displayed until a rejection by the physician of the parent's less-direct conveyance. The candidate diagnosis offered in lines 31 and 32 hearably accounts for her prior statement. The physician also treats this as an account, in that he accepts the turn at first possible completion with "Yeah."[9] However, both statements (lines 28 and 31–32, respectively) appear to be conveying the same diagnostic theory.

A final example is shown in Extract 10. Here, as part of the narrative problem presentation, the mother states that "she started with uh little clear fluid on: uh:m h tlk Saturday … And then- by yesterday it turned- green," (lines 6–7, 15, and 17). With her use of "started" she projects that there has been some change. In addition, "clear" suggests that the change may be in terms of color because clear fluid is nonproblematic and typically a problematic formulation would be simply a "runny nose" or a "lot of drainage" rather than the naming of a color. In this case the color is projected to have changed.

(10) 1046 (Dr. 1)

1	DOC:	Oka::y, so:, let's see what's doin' he:re?=hh
2	MOM:	We:ll, Erin:, thuh first up to bat here, (0.2) she:
3		uhm (.) ^she's been ac[ting pretty-
4	DOC:	[.hh
5	DOC:	Come clo[se to me (Er,)
6	MOM:	[pretty happy but- .hh she started with uh
7		little clear fluid on: uh:m h tlk Saturday.
8		(.)
9	MOM:	running out of her no:se_
10	DOC:	(Who[o hoo) ((whistled))
11	MOM:	[and draining into 'er throat_
12	DOC:	I think there's uh bird in 'er ear:.=
13	MOM:	=#huh hu[h# ((throat clear))
14	DOC:	[Did=you hear tha:t?
15	MOM: →	And then- by yesterday it turned-
16	GIR:	#Hu::h hu[h# ((cough))
17	MOM: →	[green,
18	DOC:	Kay her ears look perfect.

[9]Although the physician does not complete his next component, the "w-" may have been headed toward "Well" and thus toward possible further disagreement with the parent (Pomerantz, 1984). At the very least, the cutoff talk projects more on that inquiry and suggests a nonminimal receipt of the parent's account.

19 MOM: Okay:,
20 MOM: .h And=uh .h it's mostly at night when- it drains
21 down:n [it's:-
22 DOC: [Yeah_
23 MOM: → An' I've had uh sinus infec[tion,
24 DOC: [Okay. Open up your mouth
25 real wide-

As the mother continues her narrative, she does in fact assert that it changed color to green. With its technical specificity, this characterization indexes a diagnosis of a sinus infection. That this is the mother's design is made explicit when, in her next turn, the mother states that she has had a sinus infection. Thus, the implication is that the mother has experienced similar symptoms and thus believes that green discharge can be a symptom of sinusitis. That the mother's turn in 23 is designed to be connected to her earlier diagnosis implicative symptom, is partly carried by the "An'" connecting it back to what was said before. This helps the turn to be heard for its ramifications for the daughter rather than as a discrete unrelated announcement.

Although implied candidate diagnoses can be seen to have a resemblance to both symptoms-only presentations and articulated-candidate diagnosis, it is shown here that in the way they are constructed, parents appear to be designing their presentations to index particular diagnoses, although they are less overtly suggested than with articulated-candidate diagnoses. In this way, they appear to be displaying the stance that their children have a given condition and that they are seeking treatment for that condition. The same is shown with respect to how they are responded to by physicians.

RESPONSES TO PROBLEM PRESENTATIONS

The previous sections identify two ways of formulating a child's reason for visiting a physician. I have suggested that these formulations may communicate alternative stances toward the primary reason for the visit, and hence toward the goal of treatment for the child's condition. In this section, I show the ways physicians take up each type of formulation.[10] Specifically, I show that when parents offer a symptoms-only presentation, they are treated as embodying a stance that their children have doctorable conditions for which they are seeking medical evaluation. By con-

[10]Gill (1998) commented that patients' offers of explanations for their conditions were typically built for nonresponse and often were not given response. This section shows that although candidate diagnoses are virtually never offered as questions in the problem presentation activity context, they are nonetheless routinely responded to. This difference may be a matter of location or the pediatric context. Further investigation of this is necessary.

trast, when parents offer a candidate diagnosis, they are treated as embodying a stance that their children have not only doctorable conditions but treatable ones, and further that doctors will orient to parents as seeking treatment.

Responding to Symptoms-Only Presentations

As suggested earlier, symptoms-only presentations are the most common type of problem presentation and are oriented to as the default type. That is, to communicate a problem in another way is a marked form that doctors typically respond to differently. This section focuses on two ways in which physicians respond to symptoms-only presentations preparatory to a contrast with physicians' responses to candidate diagnoses. First, physicians typically move from a symptoms-only presentation directly into an investigation of the child's problem. This may mean a move to physical examination (as seen in Extract 1) or a move into history taking (as shown in Extracts 2 and 3). The physician does not, in any case, in these data take issue with a parent about the symptoms he or she describes. This suggests that physicians orient to symptoms-only presentations as making relevant an investigation of the patient's problem and nothing more. Second, physicians typically formulate their subsequent diagnoses as direct, positively formulated announcements. That is, they offer diagnosis without orienting to a previously implied or articulated diagnosis; thus, orientation to an explanation of the problem as the primary task set by the parent's problem presentation. Both of these features are shown in the next extract—the case shown earlier in Extract 2.

(11) 1188 (Dr. 3); [problem presentation shown previously in Extract 2]

1	DOC:	And so: do- What's been b<u>o</u>thering her.
2		(0.4)
3	MOM:	Uh:m she's had a c<u>o</u>u:gh?, and stuffing- stuffy
4		n<u>o</u>:se, and then y<u>e</u>sterday in the afternoo:n she
5		started tuh get #really goopy eye:[s, and every=
6	DOC:	[Mm hm,
7	MOM:	=few minutes [she was [(having tuh-).
8	DOC:	[.hh [Okay so she ha-
9		so when she woke [up this morning were her eyes=
10	MOM:	[( )
11	DOC:	=all stuck shut,
12	MOM:	Yeah but- Well <u>a</u>ctually during thuh middle of the
13		n<u>i</u>:ght [she woke u[:p_ and they we[re stuck shut n'_
14	DOC:	[Okay, [Okay_ [Okay_
15		1→ An' how about f<u>e</u>ver. Any fever at all?

((33 lines of history taking–examination not shown))

49 DOC: 2→ Basically she's mov- i- she's: >y'know< kinda:
50 2→ developed the co:ld an' respiratory thing
51 2→ that's goin' arou:nd.
52 MOM: [Uh huh,
53 DOC: [.hh
54 DOC: 2→ An' it's moved into her eyes, so she's got like #uh:#
55 2→ pink eye or conjunctivitis. .hh and so thuh: cou:gh,
56 and the stuffiness I would treat symptomatically
57 with uh cough an' cold medicine like Pediaca:re,
58 Dimetapp, whatever:.
59 DOC: .hh And then I'm gonna give you some eyedrops to put
60 in her eyes_
61 MOM: Okay?,
((DOC continues on to detail dosage))

Here, it can be seen that at 1→, the doctor moves from establishing the reason for the child's visit directly to history taking. Then, at 2→, when the physician delivers his diagnosis it is simply asserted rather than framed as rejecting an alternative, denying the parent's theory or confirming it. In this case the physician's diagnosis is offered in lines 49 to 51, 54, and 55. It simply asserts that the condition is a "cold" and "pink eye." In lines 55 to 60 the physician outlines his treatment recommendation for the two conditions. This too is formulated as a straightforward proposal. Similar to the problem presentation, the diagnosis and treatment are offered in an unmarked way, suggesting that they are providing only an evaluation and advice on treatment.

Another example is shown in Extract 12. As with Extract 11, here too the physician moves directly from establishing the reason for the visit into history taking (1→).

(12) 2058 (Dr. 5); [full problem presentation shown previously in Extract 3]
1 DOC: And what's going on with you:,
2 (2.0)
3 BOY: (°Well-°) (0.4)
4 MOM: .tlkh He ha:s uh: rash all over his body,
5 DOC: Uh [huh:,
6 MOM: [Like head to toe,
7 (0.6)
8 MOM: An:d uh:m he ha:s uh #fever#,='e's ((kid begins noise))
9 uh hundred 'n one today,
10 DOC: Mm hm:?,=
11 MOM: =Stop it- Stop that. (Zack. Stop it.) ((to child))

12 (0.8)
13 MOM: He's had uh fever for two day:s, He's had
14 [uh persistent cough=for uh few weeks,
15 DOC: [Mm hm,
16 DOC: Uh hu[h:?,
17 MOM: [But it w=(h)asn't been bad enough to bring him in,
18 DOC: Uh huh?
19 MOM: And he's (complai:ned) for- uhm- (0.3)
20 DOC: (.ml[h)
21 MOM: [two days about uh stomach:=ache_ uh: (.) stomach
22 cramping.
23 (1.0)
24 DOC: 1→ .Tlkh n- n- uhm: for two days?
25 MOM: #Yeah:. (an it started yesterday.)
((48 lines of history taking, and exam not shown))
75 DOC: .Tlkhh You want to [know what you ha:ve?
76 MOM: [His-
77 MOM: His chest and his genital:s are the reddest,
78 DOC: #Yeah:.#=h
79 DOC: 2→ He's got scarlet #fever:#.

After the history taking and physical examination (data not shown), the doctor moves to offer her diagnosis (shown in line 79). Also similar to Extract 11, it is formulated positively and straightforwardly. This sequence begins fairly early in the physical examination. The doctor's turn in line 75 is hearably a preannouncement (Terasaki, in press) addressed to the boy with "you." This may indicate that the forthcoming news is delicate or unusual. However, the mother does not orient to the doctor's turn as initiating a presequence. Rather, she does some additional work to assert the problematic nature of her child's condition by offering an additional problematic symptom (lines 76–77). In this way, the mother may be treating the pronouncement as preceding the full investigation of the boy.[11] In line 78 the physician offers minimal agreement with the mother's turn before moving directly to her diagnostic assertion that the boy has "got scarlet #fever:#." It is also notable that the doctor has now shifted from addressing the boy to addressing the mother in the way she refers to the boy using the third person pronoun "he."

The doctors' responses in these cases offer evidence that when parents use a symptoms-only problem presentation formulation, they are hearable as taking a stance that their children's conditions are doctorable, but they do not make any

[11]As has been noted in other research, preannouncements are vulnerable to misunderstanding (Schegloff, 1988, 1995). Here, the mother may understand the doctor's question to be a genuine question or as part of rapport building with her son rather than as a pre- to the diagnosis.

claims about their treatability. Parents in these encounters specifically orient to seeking a diagnosis, leaving treatment "to the physician."[12] There is no explicit orientation to whether the condition is in need of treatment. Thus, parents in these encounters are routinely oriented to as primarily seeking an evaluation of their children's illnesses. Earlier in this section, I suggested that this may be the default form of presenting a child's problem. In support of this, physicians appear to respond to these presentations in what might be best thought of as the unmarked form of a diagnosis. That is, first, physicians routinely move from establishing the reason for the child's visit into an investigation of the problem, and second, they routinely offer their diagnoses and treatment recommendations as simple straightforward announcements (i.e., not apparently responsive to, in the sense of confirming or disconfirming, any particular previous diagnostic theory). In the straightforwardness of their formulation, these diagnosis announcements appear to be doing "nothing special" and in this way act as the default form of diagnosis delivery.

Responding to Candidate Diagnosis Presentations

In contrast with the way doctors typically respond to symptoms-only problem presentations, they typically respond to candidate diagnoses—whether suggested or implied—by (a) orienting to the relevance of confirmation or disconfirmation of the parent's proposed diagnosis and (b) orienting to the relevance of antibiotic treatment. Two of the most common locations where physicians address parents' candidate diagnoses are immediately and during the counseling phase. Responses in these two contexts is examined next.

Candidate diagnosis uptake—Just following the presentation. As was shown previously, following symptoms-only problem presentations physicians routinely move directly into history taking or examination. In these data, there are no cases of physicians challenging the existence of a parent reported symptom such as ear or throat pain, congestion, or a runny nose. By contrast, if a parent presents a candidate diagnosis, the physician may counter that diagnosis then and there. In response to initial candidate diagnoses, they performed confirmations or disconfirmations of this type 19% ($n = 15$) of the time. For example, in the case shown earlier (Extract 5),

[12]Robinson (1999) asserted that all acute consultations have an orientation toward treatment as a final activity. These data do not necessarily suggest the contrary. That is, treatment may still be a relevant activity for these participants following diagnosis even if that treatment is nonprescription. However, in these data, treatment is not oriented to by the participants as the "reason" for the visit in the problem presentation stage of the encounter.

after the mother has presented her daughter's problem and offered a candidate diagnosis of a sinus infection, the doctor moves to counter that diagnostic conclusion.

(13) 615 (Lake Mead Vacation); [shown earlier in Extract 5]
10 MOM: → So I was thinking she had like uh sinus in[fection=
11 DOC: [.hhh
12 MOM: → =er something.=
13 DOC: → =Not necessarily:, Thuh basic uh: this is uh virus
14 basically:, an'=uh: .hh (.) thuh headache seems tuh
15 be:=uh (0.5) pretty prominent: part of it at fir:st
16 uh: (0.2) .hh

Here, the doctor's turn in lines 13 to 16 is clearly responsive to the mother's candidate diagnosis at lines 10 and 12. In the first TCU of line 13, although slightly mitigated, the doctor rejects the mother's assertion as unlikely. The forcefulness of the counter is partly carried by being latched to the mother's turn in line 12.[13] Although the doctor's first TCU does not completely rule out a sinus infection, in the second TCU he asserts that "this is uh virus basically:" This offers an alternative diagnosis unequivocally and thus fairly strongly rejects the mother's candidate diagnosis as a possibility. The third TCU suggests that the headache is part of this viral condition accounting for one of the symptoms that the mother stated had led her to her own candidate diagnosis thus rejecting her logic for her daughter's condition.

A similar example can be seen in Extract 14. In this case, the mother presents her candidate diagnosis as "<I don't know if ya know strep has secondary er anything like that I wasn't sure. But he hasn't had thuh fever er thuh nausea er anything that he's had before." (shown earlier in Extract 6). Following the completion of a somewhat extensive joking sequence (data not shown), the doctor moves to address the mother's diagnosis.

(14) 316 [full presentation shown in Extract 6]
31 MOM: → [(I-) I thought (0.5) maybe I better just- <I don't
32 → know if ya know strep has secondary er anything like
33 → that I wasn't sure.But he hasn't had thuh fever er
34 thuh nausea er anything that he'[s had before.
35 DOC: [O:kay:,
36 DOC: .hh [(Goo:d?,)
((15 lines not shown including joking about BOY having day off but not MOM))
52 DOC: ££O:kay:,££

[13]In fact, it could be argued that with the inbreath in line 11 the doctor projected taking up the candidate diagnosis even earlier. However, ultimately the turn itself is not begun until line 13.

53 DOC: → .hh Well:, (.) o:ne good thing is: that- uhm (0.5) strep
54 → infections:- respond really well tuh amoxicillin. .hh so
55 → wh:ile he may not have strep any more (.) he could still
56 DOC: → have- uh viral process going on, he could still have just
57 → residual sore throa:t, .h[h dry weather kind of things, .hhh
58 MOM: [(°Okay.°)
59 DOC: Uhm: besides having an actual infection so we can always
60 look at those issues, .hh an then if you want we can also
61 just retest his throat.
62 (.)
63 DOC: An' make sure there's no more strep there too.
64 (.)
65 MOM: Well (you it) kinda depends on what you- what you [think.
66 DOC: [Mkay,

The mother frames her candidate diagnosis in such a way as to allow both agreement and disagreement. That is, she suggests evidence that he no longer has strep ("hasn't had thuh fever er thuh nausea"; lines 33–34). However, she nonetheless speculates about strep as a possibility ("I don't know if ya know strep has secondary er anything"). With this diagnosis on the interactional table, the doctor addresses both dimensions. In line 53 the doctor takes an inbreath, prefaces his turn with "Well", stretches the "Well:", and then delays the turn further with a micropause. All of these features are common in dispreferred turn formats (Pomerantz, 1984). This turn design indicates that it is responding in a disaligning way to the mother's candidate diagnosis. However, the doctor also frames his response as in agreement with the mother through his "wh:ile he may not have strep any more" (line 55). This works to maximize the appearance of agreement with the mother's problem presentation. The doctor also goes on to validate the mother's reason for visiting: "he could still have- uh viral process going on, he could still have just residual sore throa:t, .hh dry weather kind of things," (lines 55–57). In this way, the doctor both counters the mother's candidate diagnosis of strep and validates her reason for coming (something doctorable of another origin could still be causing the sore throat). Finally, in lines 61 and 62 the physician offers another sort of response—an offer to retest the boy's throat to ensure that he no longer has any strep.

When a candidate diagnosis is implied, physicians also routinely act responsively. Here, it can be seen as an example both of a disconfirmation and of an orientation to the doctor's orientation that the candidate diagnosis was looking forward to antibiotic treatment. In Extract 15, the mother presents her child's symptom of nasal discharge by specifically mentioning the color as problematic. She says, "it's gotten- it was green" (line 4). The color of the nasal discharge if of-

ten asked about, and color and duration help physicians to differentiate between viral and bacterial conditions.

(15) P110 (Dr. 1)

1	DOC:		You're sick_ well what's u:p.
2			(1.1)
3	GIR:		I don't knol : [w,
4	MOM:	→	[B[etween yesterday and toda:y, she-=
5	DOC:		[How- hh
6	MOM:	→	=.hh ya know it's (this-)/(j's-) nasal crap
7		→	an' it's gotten it was gree[:n.=it was [uh=
8	DOC:		[- [Nkay:,
9	MOM:	→	=really uh beauti[ful color [(yesterdange)
10	DOC:	→	[.hh Okay well just because it's green
11		→	[it doesn't
12	MOM:		[(doesn't mean [an-) (I kn-) (Right right right right.)
13	DOC:	→	[ma- mean it's bacterial.
14	DOC:	→	There's a [who:le new thing about: uh: .h - sinus
15	MOM:		[I know.
16	DOC:	→	an' everybody's saying we'd so we've been trying
17		→	very hard not tuh put kids on antibiotics if
18	DOC:	→	we can avoid it,
19	MOM:		Ri:ght. right.

The physician clearly hears the mother's mention of the green color as indexing a bacterial sinus infection with his virtual rejection of the diagnosis with "well just because it's green it doesn't ma- mean it's bacterial." (lines 10–11 and 13). Although no articulated-candidate diagnosis is offered here, the physician treats the particular formulation of symptoms as clearly implying one, and in that way he is enabled to reject it in a way that emerges in response to symptoms-only formulations. In addition, following the rejection of the mother's candidate diagnosis, the doctor goes on to foreshadow his own unwillingness to prescribe antibiotics (lines 14, 16–18). With this, he displays his understanding that the candidate diagnosis was not only seeking confirmation or disconfirmation but was also working to advocate for antibiotic treatment.

Statistical evidence also supports the argument that physicians treat articulated and implied candidate diagnoses very similarly. For example, physicians are nearly equally likely to agree or disagree just following the problem presentation to either type of candidate diagnosis. In the case of articulated-candidate diagnoses, physicians respond 17% of the time (8 out of 48 cases), and in the case of im-

TABLE 1
Responses to Candidate Diagnosis Problem Presentations

Presentation	*Frequency*	*%*
No response	41	52
Confirms–disconfirms	15	19
Investigates problem	23	29
Total	79	100

plied candidate diagnoses, they respond 23% of the time (7 out of 31 cases). This small difference was nonsignificant, which is consistent with the possibility that in this respect physicians treat them as similar, $\chi^2(1, N = 79) = 0.428$, $p = .513$.

In this section, I examine immediate responses to candidate diagnosis formulations. As Table 1 shows, although no instances of a confirmation or disconfirmation of a symptoms-only presentation occurs in these data, such a response immediately following a candidate diagnosis occurs in 19% of such cases.

Thus, it is not uncommon for physicians to address candidate diagnoses immediately following their being offered. Such responses are not found among cases with symptoms-only presentations. Candidate diagnoses can be seen as a practice that makes relevant some response either addressing the accuracy of the diagnosis and the appropriateness of antibiotic treatment, or both. However, not all responses are done immediately. Some are offered later in the encounter.

Candidate diagnosis uptake—During counseling. A second primary area in which physicians can be seen to directly address parents' candidate diagnosis presentations is in the counseling phase—when they offer their final diagnosis and treatment recommendation. In this location, physicians work to show that the diagnosis and treatment recommendations they are providing are being offered in light of the earlier candidate diagnosis. For example, see Extract 16. Here, the mother earlier offers a candidate diagnosis that her daughter has a sinus infection. In line 42 the physician completes his examination of the girl and offers his diagnosis.

(16) 615 (Lake Mead Vacation) [shown earlier in Extracts 5 and 10]
10 MOM: → So I was thinking she had like uh sinus in[fection=
11 DOC: [.hhh
12 MOM: → =er something.=
((29 lines of history taking and examination not shown))
42 DOC: → .hh Uh: (1.4) Let's see (now) (1.1) I think uh: I
43 → don't think she h:as: uh: sinus infection,Have you
44 noticed uh lot of (0.2) heavy drainage:?,

45 (0.2)
46 MOM: Yeah she's been:: (.) When she does cough she coughs
47 up (the-)/(th't) (.) gree:n, (1.0) that mucus stuff?

As the physician begins his diagnosis, he appears to be headed for a diagnostic assertion with "I think"; however, in initiating repair on this turn beginning, and redoing it as a negative formulation, the physician works to design his diagnosis as responsive to the mother's problem presentation. He does this by disconfirming her candidate diagnosis (lines 42–43) with "I don't think she h:as: uh: sinus infection,". It is also worth noticing that the formulation the physician uses to disconfirm the diagnosis is the one the mother used (i.e., "sinus infection").

A second example is shown in Extract 17. Here, the father's candidate diagnosis is that of sinustis. The physician returns to this candidate diagnosis as she delivers her diagnosis.

(17) P201 (Dr. 7) [full problem presentation shown in Extract 7]
8 DAD: <And we have ha:d> (1.0) some experience in
9 thuh pa:st with s:inus::=sinusitis?
10 DOC: Mm hm?
((254 lines of history taking and examination not shown))
272 GIR: Ah::[:=hhh
273 DOC: [Just a teeny teeny teeny bit.
274 See in thuh back [there,
275 DAD: [Uh huh,
276 (.)
277 DAD: [Uh huh,
278 DOC: [But nothing too #ba:d,# so that might be ea:rly
279 or- .hh uh:m:=but ^otherwise >her ears look great.=
280 =She's not< having uh lot uh mucus or stuff.
281 You usually get- i- bad ear infectio:ns_ .hh
282 ya know -after you get uh lot of co:ld,
283 → I=don't=know if that's been='er history in thuh
284 → pa:st but- .hh uh lotta times you'll get sinusitis
285 → or ear infections after a lot of mucus up here,
286 → and right now she's - pretty clear_ it seems like
287 it's mostly the fever,

In lines 272 to 273 the physician is completing her examinations with an inspection of the girl's throat and possibly inviting the father to look with her at the girl. The physician mentions both sinusitis and ear infections as conditions that can

occur after a cold, but asserts that "right now she's - pretty clear_"[14] The initial assertion (line 280) that "She's not< having uh lot uh mucus or stuff." appears to be mentioned as evidence for her claim that there is not a sinus infection. It is also notable that here, as in Extract 16, the physician uses the characterization of the illness that was used by the parent (i.e., "sinusitis") to disconfirm it as a diagnosis (vs. "sinus infection").

Another example is shown in Extract 18. Here, the physician returns to the child's ears and presents his diagnosis as regretfully disconfirming (lines 65–66 and 68).

(18) 1017 (Dr. 1) ((Simplified; BRO is the child patient's brother))

1	MOM:		He- no[::. he's thuh- he's got the ear infection.
2	BRO:		[He's-
3	BRO:		He- he (los-) He's SICK.
4	DOC:		You ^think so?
5	BRO:		Yeah. He's sick.
6	DOC:		[#Oh.# Well I can see he's not smi:[ling, C-
7	MOM:		[(Hm_) ((laugh)) [Kind of
8			listless.
((53 lines of problem presentation, history taking and examination not shown))			
62	DOC:		.hh °Yeah #Say° "Ah:-" <Lemme look (in)/(at)
63			those ears again:.
64			(23.5)
65	DOC:	→	hh=£Wish (we) could s(h)ay h(h)e h(h)ad an e(h)ar
66		→	i(h)nfection but-
67	MOM:		([I don't know what_ Yeah:.)
68	DOC:	→	[£I don't see: it.£
69			(.)
70	MOM:		Go^od.

The physician's diagnosis is clearly retrieving the mother's prior candidate diagnosis of an ear infection by repeating it here as something he "wishes" he could say. In addition, in formulating his diagnosis in the negative "£I don't see: it.£" (line 68), he treats his final diagnosis as one that is, by design, disconfirming the mother's candidate diagnosis rather than positively making a diagnosis as a first and only diagnosis.

Implied candidate diagnoses are also routinely confirmed or disconfirmed during the final diagnosis. In the following case the father implies a diagnosis of swimmer's ear when he mentions "He's been swimming a lot," (line 6) after hav-

[14]The father also mentions a candidate diagnosis of an ear infection, but this is done following the problem presentation, so it is not discussed here.

ing mentioned ear pain (see Gill, 1998, for a discussion of patients' diagnostic explanations in this format). Although this case differs slightly in that this is not the symptom, note that the symptom of "eara:che" is being explained here by the act of swimming, although the diagnosis is not stated. This is quite similar to noticing green discharge or pus on the tonsils without asserting a diagnosis of sinusitis or strep throat.

(19) 1189 (Dr. 2)
1 DOC: Well Charlie's got an ear:che. #A[w::.#
2 DAD: [Well- Yeah-
3 His- ba- it's bothering him la- lot of
4 swimming.
5 (0.5)
6 DAD: He's [been swimming a lot, an' then he went=
7 DOC: [Okay.
8 DAD: =to thuh snow.
((30 lines not shown; history taking and physical examination))
39 DOC: Let's peek at=your ear:r.
40 (3.0)
41 DOC: .hh so=what:=h=°ow:.°
42 (0.5)
43 DOC: Well he does not have a swim ear: but he
44 does have a middle ear infection,

In this case, after the physician examines the child, he says "Well he does not have a swim ear: but he does have a middle ear infection," (lines 43–44). This formulation displays the physician's orientation to the parent as having implied a diagnosis of swimmer's ear to explain his child's ear pain. Thus, the physician does not simply assert the ear infection, but first rejects the implied diagnosis. The disagreement is marked with the "Well" preface (Pomerantz, 1984), and the rejection component is "does not have a swim ear:", which rejects the implication of swimmer's ear offered earlier. The doctor then provides the positive diagnosis. This is marked as contrastive with the negative diagnosis first by the use of "but." In addition, with the second "does" the physician can be heard to support the father's claim that his son has ear pain. The stress marks the second component as contrastive with the negative and suggests that although the parent was wrong on one count (with the implied diagnosis), he was right in his recognition of a medical problem.

As in the case of immediate responses to implied candidate diagnoses, differences in doctors' diagnosis deliveries varied insignificantly based on whether the candidate diagnosis was suggested or implied. Doctors formulate diagnoses as responsive 68% of the time ($n = 32$) with suggested candidate diagnoses compared to

TABLE 2
Responsiveness of Doctors' Diagnoses

	Symptoms Only		*Candidate Diagnoses*		
Diagnosis	*n*	*%*	*n*	*%*	*Total*
Nonresponsive–straightforward	96	64	22	29	118
Responsive	55	36	55	71	110
Total	151	100	77[a]	100	228

[a]*n* = 77 because in two cases in which there was a candidate diagnosis, there was no official diagnosis offered.

77% of the time ($n = 23$) with implied candidate diagnoses, $\chi^2(1, N = 77) = .661$, $p = .416$.[15]

That physicians are oriented to candidate diagnoses as making relevant confirmation or disconfirmation in the diagnosis is further supported by the data shown in Table 2.

As can be seen in Table 2, in 71% of the cases following a candidate diagnosis problem presentation, doctors offered either confirming or disconfirming final diagnoses. In addition, when compared to symptoms-only problem presentations, a physician is significantly more likely to provide a responsive (i.e., confirming or disconfirming) diagnosis.[16] Specifically, following a candidate diagnosis, the probability that a physician will format his or her diagnosis responsively increases from 36% to 71%.

There is also evidence that parents design their candidate diagnosis presentations for confirmation or disconfirmation. In Extract 20, when a physician does not address the parent's candidate diagnosis, the parent reinvokes it as a question.

(20) 1141 (Dr. 3)

1	DOC:	So: what's goin' on he:re.
2		(1.2)
3	MOM:	He's got uh:- (0.2) tlk (They're kinda-) He stayed
4		out of school on Monday:,
5	DOC:	[Uh huh,
6	MOM:	[(w-)
7	MOM:	With kind of #uh-# low grade fever an'- (.)

[15]As is the case with Table 2, here the *n* is 77 versus 79 because in two cases physicians did not offer an official diagnosis; thus, these cases could not be coded.

[16]As seen in Table 1, doctors can responsively frame their diagnosis following a symptoms-only presentation. This can occur because a doctor can treat a parent as having implied a diagnosis even when no candidate diagnosis was given (e.g., "Actually she does have an ear infection" following a problem presentation that did not include any mention of ear pain).

8 uh crummy no:se_ an' now he's complaining about
9 → ears_<He's [very susceptible [to thuh infections,
10 DOC: [Uh oh. [Is ('e-)
11 DOC: Uh huh,
12 DOC: Has he had uh fever at all?,
((60 lines not shown))
74 DOC: Yeah I think he's got thuh bug that's goin' around
75 right now: [an-
76 MOM: → [(Oh) you don't- He doesn't have uh
77 → infection?
78 DOC: I don't think so. Not yet.

In line 9, the mother offers a candidate diagnosis of an "infection." This is responded to during the physical examination (data not shown), but in the final diagnosis it is not specifically confirmed or disconfirmed by the physician until the parent requests that confirmation (lines 76–77).[17] Here, the actual diagnosis is given with "I think he's got thuh bug that's goin' around right now:" (lines 74–75). In response—in fact at first possible completion—the parent treats her primary concern as remaining unaddressed and pursues confirmation of that diagnosis (lines 76–77). Although the doctor's turn is not apparently designed to be complete at the point (both intonationally and with the presence of a following cut off "and"), the mother begins her turn coming in immediately on possible grammatical completion to ask about whether the child has "uh infection?" Here, she uses the same formulation she used previously, which helps to display her action as requesting confirmation of a diagnosis she had offered earlier in her problem presentation rather than asking about something new. The physician then disconfirms this. The example suggests that parents also monitor physicians' diagnoses for the way they address previously suggested diagnoses.

Earlier, it was seen that the relevance of antibiotics could be addressed immediately following the problem presentation (Extract 15). This type of response to a candidate diagnosis is also common in the counseling phase. For example, see Extract 21.

(21) 305 ((shown earlier in Extract 4; Extract 21 begins just following the physical examination))
1 DOC: .hh So: it would loo:k hh like she is:=uhm (.) prob'ly

[17]The diagnosis appears to be designed responsively with "Yeah." However, this "Yeah" appears to be, in fact, an acknowledgment of the prior discussion of allergies, but it is not agreeing with it as a diagnosis only with the possibility that they may exist as well. This may also be the sort of speaker shift implicative "Yeah" discussed by Jefferson (1984).

2 fighting some (.) viral: upper respiratory[18] kinda stuff,
3 DOC: .hh More on thuh left than on thuh right, which
4 c[an account for some pain maybe,
5 MOM: [Okay.
6 DOC: .hh Uhm:=hh Ears are- hh I mean .hh there's not even
7 uh lot of wax in her ears. Her ears are prett[y clea:n.
8 MOM: [( )
9 DOC: I mean [they look s- sec- exceptional_ .hh (¡ya know.¡)
10 MOM: [(Great.)
11 MOM: °Yeah: [uhm°
12 DOC: [For uh kid [her age.
13 MOM: [huh huh huh .h[hh She loves tuh have=
14 DOC: [Good job.
15 MOM: =her ears cleaned. huh hu[h huh .hhh huh huh huh
16 DOC: [Well- (.) fantastic (cuz)
17 DOC: (they've be-) you guys are doing uh great jo:b, .hhh
18 MOM: (M[m.)
19 DOC: [Uh:- I would tell you though I don't hhh (.) I
20 don't see anything that requires like antibio:tics er
21 anythi:ng, but certainly sympto[matic treatment might=
22 MOM: [Mm.
23 DOC: =be in order,
24 DOC: .hh
25 MOM: Okay.

Similar to Extracts 16 to 19, here the doctor can be seen to formulate his diagnosis as responsive to the mother's candidate diagnosis. First, the doctor confirms that the girl has an illness. This is carried with the full form "is … fighting" and the additional stress on "is" that works, as seen in other cases, as confirmation. Second, he provides an account for the pain that the mother offered previously as evidence for her candidate diagnosis. Specifically, he notes that there may be more infection on the left than the right "which can account for some pain maybe," (lines 3–4). Here, the doctor's use of the word "pain" ties back to the mother's own use of "pain" in her candidate diagnosis. Third, the doctor disconfirms the candidate diagnosis in that he specifically targets the ears to note that there is not "even" wax, which suggests that there was something else being searched for, and neither the searched for item (i.e., infection) or the more minimal wax could be found. Finally, when the doctor begins his treatment recommendation in line 19 he formulates this also as responsive. Although antibiotics had not been explicitly raised previously in this visit, the doctor frames this recommendation as responsive. This is accom-

[18]Pronounced "respeveratory."

plished, in part, by his raising them at all. That is, by stating that antibiotics are not necessary, he conveys his understanding that they were relevant to him and to the mother. Other potentially relevant medications are not ruled out, so the raising of this treatment is significant and displays an orientation to their relevance for the visit. In addition, the use of "I would tell you though" suggests that this is part of his response to the mother. He has provided a confirming response in that the child "is" fighting an illness. Here he is providing the counterpart disconfirming a need for antibiotics. The "though" carries much of the weight here in establishing the utterance as contrastive with the position taken by the mother in the earlier problem presentation. The treatment recommendation in these ways suggests the doctor's understanding that the parent was oriented to antibiotics as the appropriate treatment for the illness they said they believed the child had—an ear infection—communicated through their use of a candidate diagnosis early in the visit.

Statistical evidence also supports the idea that parties are oriented to candidate diagnoses as looking forward to antibiotic treatment and therefore making it relevant for physicians to mention antibiotics as necessary or not. When responses were compared, these data suggest that physicians were more likely to mention antibiotics as (a) going to be prescribed, (b) not being prescribed, (c) possibly going to be prescribed but contingent on the parent calling in several days with an update on the child's condition (Mangione-Smith et al., 2000, termed this a *contingency plan*), or (d) going to be prescribed but with the recommendation that the parent delay filling the prescription for several days to determine if the child will improve. An overall comparison of the frequencies of whether and how physicians mention antibiotics during the treatment phase was done. The test of overall differences between these categories, when there was a candidate diagnosis offered, was significant, $\chi^2(3) = 14.196$, $p = .003$. Follow-up tests of these different response types (i.e., no mention of antibiotic treatment, mentioning no need for antibiotics, prescribing, or offering a delayed prescription or a contingency plan) were then done. Specifically, the data show that physicians were more likely to mention antibiotics in the treatment recommendation when a candidate diagnosis had been offered—an increase from 68% to 87%, $\chi^2(1) = 9.51$, $p = .002$. In addition, physicians were much more likely to offer antibiotics in terms of a delayed prescription or a contingency plan when there was a candidate diagnosis. Their frequency increased 2.5 times, from 8% to 20%, $\chi^2(1) = 7.64$, $p = .006$.

In this section, I show that physicians regularly treat symptoms-only problem presentations as making relevant only an investigation and evaluation of the child's problem. By contrast, physicians treat candidate diagnoses as, at least, inviting some uptake in the form of confirmation or disconfirmation and thus, physicians routinely respond to parents' candidate diagnoses. I argue that by offering a candidate diagnosis in the problem presentation, parents take up the stance that their children's illnesses are medically problematic and treatable. The responses I show support this analysis. Specifically, the physicians' responses are generally

confirmatory or disconfirmatory and often mention antibiotic treatment, and the statistical evidence provided further supports the recurrent nature of this practice. Physicians treat parents as in search of confirmation that their diagnosis was correct and in terms of treatment for that condition. As in Extract 18, physicians may even be somewhat apologetic if they are unable to confirm a candidate diagnosis. By contrast, in cases in which the parent presents his or her child using a symptoms-only problem presentation, physicians routinely offer their diagnoses as straight affirmative statements. For example, following a candidate diagnosis of a sinus infection, physicians will routinely rule this out before offering an alternative diagnosis, in a symptoms-only environment, the physician typically offers a straight assertion of, for example, a cold.

DISCUSSION

This article outlines two practices parents use to present their children's problems. I argue that these practices convey alternative stances toward the child's problem in terms of its doctorability and treatability. Symptoms-only problem presentations are oriented to as the default type of presentation and display a stance that parents are seeking an evaluation of their children first and foremost. In contrast to the actions of presenting symptoms only, presenting a candidate diagnosis displays a stance that the child's illness is severe enough to require their medical visit and that it is a treatable condition. It pushes forward across the physician's medical judgment by anticipating this judgment, thereby making treatment directly relevant. Candidate diagnoses accomplish this by offering—whether straightforwardly or more obliquely—a medically recognizable diagnosis. It is significant that, within these data, candidate diagnoses overwhelmingly propose conditions that are treatable with antibiotics. Of the total candidate diagnoses offered, 82% were antibiotic in nature, and the remainder were generally treatable with some form of prescription remedy.[19] The results of this study suggest a communication behavior that although indirect in nature, may be understood by physicians as pressure to prescribe antibiotic treatment.

The link between offering candidate diagnoses of conditions that are routinely treatable (or thought to be treatable) with antibiotics (i.e., ear infections, strep throat, and bronchitis) is an important one. As discussed earlier, research in both the adult context and the pediatric context has shown that when a viral diagnosis is indicated, if physicians perceive patients or parents to expect antibiotics, they are more likely to prescribe them (Britten & Ukoumunne, 1997; Cockburn & Pit, 1997; Hamm et al., 1996; Himmel et al., 1997; Macfarlane et al., 1997; Virji & Britten, 1991). Specifically, within the pediatric context, Mangione-Smith,

[19]Other remedies might include asthma-related treatments such as albuterol or antibiotic eye drops for pink eye.

McGlynn, Elliott, Krogstad, and Brook (1999) found that physicians' perceptions of parental expectations for antibiotics were the only significant predictor of prescribing when a viral diagnosis was assigned. When physicians thought the parent expected an antibiotic for their child, they prescribed them 62% of the time versus 7% when they did not think antibiotics were expected. In addition, when physicians thought parents expected antibiotics, they diagnosed middle ear infections and sinusitis much more frequently (49% and 38% of the time, respectively) than when they did not think antibiotics were expected (13% and 5%, respectively).

This study furthers existing research by suggesting that one way physicians may come to perceive parent pressure for antibiotic treatment is through the use of communication behaviors such as candidate diagnoses. In these data this type of behavior was nearly three times more frequent than explicit requests for similar direct pressure for antibiotics with direct requests being very rare (1%, $n = 2$). Although previous research has suggested that parent pressure was achieved primarily through such direct requests for antibiotic treatment, this study offers interactional evidence that less-direct communication practices may also be understood by physicians as parent pressure. Through its reliance on conversation analytic methods, this study shows that doctors commonly respond to symptoms-only and candidate diagnoses differently and consequentially. Problem presentations that include candidate diagnoses make use of a communication practice that, by virtue of suggesting a diagnosis that is treatable with antibiotics, may communicate an expectation for antibiotics to physicians. If this is true, then it may be possible to begin to disentangle the link between physician–patient and physician–parent communication and physician perceptions of expectations. Specifically, research such as this, which identifies parent communication practices that may convey a desire or an expectation for antibiotics, may be shown to be associated with physician perceptions that parents desire or expect antibiotic treatment.

This study examines a very specific medical population—children who are seeing a pediatrician for acute care—primarily upper respiratory infections. The results of this study, therefore, may not be generalizable to other populations including an adult population. Further studies are needed to examine whether candidate diagnoses offered by adult patients are understood by physicians to be in search of other types of prescription medication, or whether in the context of medical conditions that are treatable with other forms of medication, candidate diagnoses are nonetheless understood as displaying a stance of seeking prescription treatment. In addition, as mentioned earlier, existing research based on adults has suggested that patients typically do not self-diagnose (Gill, 1998; Heritage, in press; Ruusuvuori, 2000) and that they orient to this behavior as one to be avoided except in cases in which they propose a benign diagnosis. In this way researchers have suggested that they defer to the physician's knowledge for solving their medical problem (Gill, 1998). Thus, it is possible that inhibitions to self-diagnose are relaxed in the pediatric context, although further research is needed to investigate

this possibility. Finally, this study does not attempt to relate this communication practice to parents' intentions or self-reports of their expectations or desires for antibiotic medication. That is, although this article offers evidence that physicians treat parents who offer a candidate diagnosis as seeking antibiotic treatment, parents may have communicated this unintentionally and, in fact, may have intended to communicate something much different (e.g., that the child's condition is "legitimate," that they are concerned and seeking reassurance, or that they are working to display their expertise in the area of common childhood illnesses). In related research, it appears that there may be a disconnect between physicians' perceptions of parent expectations for antibiotic treatment and parents' self-reports of their expectations for antibiotic treatment (e.g., Mangione-Smith et al., 1999; Stivers, 2000). Further research is needed to address this issue.

ACKNOWLEDGMENTS

A portion of this article was presented at the Western States Communication Convention Sacramento, CA, 2000. The writing of this article was supported by Agency for Healthcare Research and Quality Grant R03 HS10577–01. The opinions expressed in this article are solely my own and do not necessarily represent the official views of the Agency for Healthcare Research and Quality.

Thank you to Steve Clayman, Rita Mangione-Smith, Jeff Robinson, Emanuel Schegloff, and especially John Heritage for comments on earlier versions of this article. Also, thank you to Rita Mangione-Smith for allowing me access to her data and to Health Care Partners for their assistance in video data collection for this study.

REFERENCES

Barden, L. S., Dowell, S. F., Schwartz, B., & Lackey, C. (1998). Current attitudes regarding use of antimicrobial agents: Results from physicians' and parents' focus group discussions. *Clinical Pediatrics, 37,* 665–672.

Beckman, H., & Frankel, R. (1984). The effect of physician behavior on the collection of data. *Annals of Internal Medicine, 101,* 692–696.

Boyd, E. A. (1997). *Constructing histories and negotiating care: Professional discourse during medical peer review.* Unpublished doctoral dissertation, University of California, Los Angeles.

Boyd, E. A. (1998). Bureaucratic authority in the "company of equals": The interactional management of medical peer review. *American Sociological Review, 63*(2), 200–224.

Britten, N., & Ukoumunne, O. (1997). The influence of patients' hopes of receiving a prescription on doctors' perceptions and the decision to prescribe: A questionnaire study. *British Medical Journal, 315,* 1506–1510.

Butler, C. C., Rollnick, S., Pill, R., Maggs-Rapport, F., & Stott, N. (1998). Understanding the culture of prescribing: Qualitative study of general practitioners' and patients' perceptions of antibiotics for sore throats. *British Medical Journal, 317,* 637–642.

Bybee, J., Perkins, R., & Pagliuca, W. (1994). *The evolution of grammar.* Chicago: University of Chicago Press.

Clift, R. (2001). Meaning in interaction: The case of 'actually'. *Language, 77,* 245–291.

Cockburn, J., & Pit, S. (1997). Prescribing behavior in clinical practice: Patients' expectations and doctors' perceptions of patients' expectations: A questionnaire study. *British Medical Journal, 315,* 520–523.

Drew, P., & Heritage, J. (1992). Analyzing talk at work: An introduction. In P. Drew & J. Heritage (Eds.), *Talk at work* (pp. 3–65). Cambridge, England: Cambridge University Press.

Fisher, S. (1991). A discourse of the social: Medical talk/power talk/oppositional talk? *Discourse and Society, 2,* 157–182.

Frankel, R. (1984). From sentence to sequence: Understanding the medical encounter through microinteractional analysis. *Discourse Processes, 7,* 135–170.

Gill, V. T. (1998). Doing attributions in medical interaction: Patients' explanations for illness and doctors' responses. *Social Psychology Quarterly, 61,* 342–360.

Goodwin, M. H., & Goodwin, C. (1986). Gesture and coparticipation in the activity of searching for a word. *Semiotica, 62*(1/2), 51–75.

Hamm, R., Hicks, R., & Bemben, D. (1996). Antibiotics and respiratory infections: Are patients more satisfied when expectations are met? *Journal of Family Practice, 43,* 56–62.

Heath, C. (1981). The opening sequence in doctor–patient interaction. In P. Atkinson & C. Heath (Eds.), *Medical work: Realities and routines* (pp. 71–90). Aldershot, England: Gower.

Heritage, J. (1984). *Garfinkel and ethnomethodology.* Cambridge, England: Polity.

Heritage, J. (in press). Accounting for the visit: Giving reasons for seeking medical care. In J. Heritage & D. Maynard (Eds.), *Practicing medicine: Talk and action in primary-care encounters.* Cambridge, England: Cambridge University Press.

Heritage, J., & Sefi, S. (1992). Dilemmas of advice: Aspects of the delivery and reception of advice in interactions between health visitors and first time mothers. In P. Drew & J. Heritage (Eds.), *Talk at work* (pp. 359–417). Cambridge, England: Cambridge University Press.

Heritage, J., & Sorjonen, M.-L. (1994). Constituting and maintaining activities across sequences: *And*-prefacing as a feature of question design. *Language in Society, 23,* 1–29.

Himmel, W., Lippert-Urbanke, E., & Kochen, M. M. (1997). Are patients more satisfied when they receive a prescription? The effect of patient expectations in general practice. *Scandinavian Journal of Primary Health Care, 15,* 118–122.

Jefferson, G. (1980). *End of grant report on conversations in which "troubles" or "anxieties" are expressed* (HR 4805/2). London: Social Science Research Council.

Jefferson, G. (1984). Notes on a systematic deployment of the acknowledgement tokens 'yeah' and 'mm hm.' *Papers in Linguistics, 17,* 197–216.

Jefferson, G. (1988). On the sequential organization of troubles-talk in ordinary conversation. *Social Problems, 35,* 418–441.

Lerner, G. (1996). On the 'semi-permeable' character of grammatical units in conversation: Conditional entry into the turn-space of another speaker. In E. Ochs, E. A. Schegloff, & S. Thompson (Eds.), *Interaction and grammar* (pp. 238–276). Cambridge, England: Cambridge University Press.

Lipkin, M. J. (1997). The medical interview. In M. Feldman & J. Chistensen (Eds.), *Behavioral medicine in primary care: A practical guide* (pp. 1–7). Stamford, CT: Appleton & Lange.

Macfarlane, J., Holmes, W., Macfarlane, R., & Britten, N. (1997). Influence of patients' expectations in antibiotic management of acute lower respiratory tract illness in general practice: Questionnaire study. *British Medical Journal, 315,* 1211–1214.

Mangione-Smith, R., McGlynn, B., Elliott, M., Krogstad, P., & Brook, R. H. (1999). The relationship between perceived parental expectations and pediatrician antimicrobial prescribing behavior. *Pediatrics, 103,* 711–718.

Mangione-Smith, R., McGlynn, E. A., Elliott, M., McDonald, L., Franz, C. E., & Kravitz, R. L. (2000). *The relationship between parent expectation fulfillment for antibiotics, doctor–parent communication, and satisfaction.* Unpublished manuscript. Los Angeles: University of California, Los Angeles, Department of Pediatrics.

Marvel, M. K., Epstein, R. M., Flowers, K., & Beckman, H. B. (1999). Soliciting the patient's agenda: Have we improved? *Journal of the American Medical Association, 281*(3), 283–287.

Maynard, D. (1992). On clinicians co-implicating recipients' perspective in the delivery of diagnostic news. In P. Drew & J. Heritage (Eds.), *Talk at work: Social interaction in institutional settings* (pp. 331–358). Cambridge, England: Cambridge University Press.

Mishler, E. (1984). *The discourse of medicine: Dialectics of medical interviews.* Norwood, NJ: Ablex.

Ong, L., de Haes, J. C., Hoos, A., & Lammes, F. (1995). Doctor–patient communication: A review of the literature. *Social Science and Medicine, 40,* 903–918.

Pendleton, D. (1983). Doctor–patient communication: A review. In D. Pendleton & J. Hasler (Eds.), *Doctor–patient communication* (pp. 5–53). New York: Academic.

Peräkylä, A. (1998). Authority and accountability: The delivery of diagnosis in primary health care. *Social Psychology Quarterly, 61,* 301–320.

Pomerantz, A. (1984). Agreeing and disagreeing with assessments: Some features of preferred/dispreferred turn shapes. In J. M. Atkinson & J. Heritage (Eds.), *Structures of social action: Studies in conversation analysis* (pp. 57–101). Cambridge, England: Cambridge University Press.

Robinson, J. D. (1998). Getting down to business: Talk, gaze, and body orientation during openings of doctor–patient consultations. *Human Communication Research, 25,* 97–123.

Robinson, J. D. (1999). *The organization of action and activity in primary-care, doctor–patient consultations.* Unpublished dissertation, University of California, Los Angeles.

Robinson, J. D. (in press). Generating patients' presenting concerns: Doctors' turn formats, patients' medical goals, and relationship building. In J. Heritage & D. Maynard (Eds.), *Practicing medicine: Talk and action in primary-care encounters.* Cambridge, England: Cambridge University Press.

Ruusuvuori, J. (2000). *Control in the medical consultation: Practices of giving and receiving the reason for the visit in primary health care.* Unpublished doctoral dissertation: University of Tampere, Finland.

Sacks, H., Schegloff, E. A., & Jefferson, G. (1974). A simplest systematics for the organization of turn-taking for conversation. *Language, 50,* 696–735.

Schegloff, E. A. (1968). Sequencing in conversational openings. *American Anthropologist, 70,* 1075–1095.

Schegloff, E. A. (1972). Notes on a conversational practice: Fornulating place. In D. Sudnow (Ed.), *Studies in social interaction* (pp. 75–119). New York: Free Press.

Schegloff, E. A. (1986). The routine as achievement. *Human Studies, 9,* 111–151.

Schegloff, E. A. (1988). Presequences and indirection: Applying speech act theory to ordinary conversation. *Journal of Pragmatics, 12,* 55–62.

Schegloff, E. A. (1995). *Sequence organization.* Unpublished manuscript. Los Angeles: University of California, Los Angeles, Department of Sociology.

Schegloff, E. A. (1996). Turn organization: One intersection of grammar and interaction. In E. Ochs, S. Thompson, & E. Schegloff (Eds.), *Interaction and grammar* (pp. 52–133). Cambridge, England: Cambridge University Press.

Schegloff, E. A. (2000). On granularity. *Annual Review of Sociology, 26,* 715–720.

Stivers, T. (2001). Negotiating who presents the problem: Next speaker selection in pediatric encounters. *Journal of Communication, 51*(2), 1–31.

Stivers, T. (2000). *Negotiating antibiotic treatment in pediatric care: The communication of preferences in physician–parent interaction.* Unpublished doctoral dissertation, University of California at Los Angeles.

Swartz, M. H. (1998). *Textbook of physical diagnosis: History and examination* (3rd ed.). Philadelphia: Saunders.

Terasaki, A. (in press [1976]). Pre-announcement sequences in conversation. In G. Lerner (Ed.), *Conversation analysis: Studies from the first generation.* Washington, DC: University Press of America.

Virji, A., & Britten, N. (1991). A study of the relationship between patients' attitudes and doctors' prescribing. *Family Practice, 8,* 314–319.

Whalen, M., & Zimmerman, D. H. (1987). Sequential and institutional contexts in calls for help. *Social Psychology Quarterly, 50,* 172–185.

Whalen, J., Zimmerman, D. H., & Whalen, M. R. (1988). When words fail: A single case analysis. *Social Problems, 35*(4), 335–362.

APPENDIX A
Transcribing Conventions

DOC	Identification:	Physician (DOC); mother (MOM)
[]	Brackets:	Onset and offset of overlapping talk.
=	Equals Sign:	Utterances are latched or ran together, with no gap of silence.
-	Hyphen:	Preceding sound is cut off or self-interrupted.
#	Number Sign:	Words or sounds are produced with a gravel voice.
£	British Pound Sign:	Talk is produced while smiling.
↑↓	Up–Down Arrow:	Talk with increased pitch relative to surrounding talk.
↓↑	Down–Up Arrow:	Talk with decreased pitch relative to surrounding talk.
(0.0)	Timed Pause:	Silence measured in seconds and tenths of seconds.
(.)	Parentheses, period:	A micropause of less than 0.2 sec.
:	Colon:	Preceding sound is extended; the more colons, the longer.
.	Period:	Falling or terminal intonation.
,	Comma:	Continuing or slightly rising intonation.
?	Question Mark:	Rising intonation.
_	Underline After Word:	No intonation shift or level intonation
___	Underlining:	Increased volume relative to surrounding talk.
º	Degree Signs:	Talk with decreased volume relative to surrounding talk.
><	Greater/Less Than:	Talk with increased pace relative to surrounding talk.
<>	Less/Greater Than:	Talk with decreased pace relative to surrounding talk.
.h	Periods Before *h*s:	Inbreaths; the more, the longer.
hh	Outbreaths:	(sometimes indicating laughter); the more the longer.
hah	Laugh Token:	Relative open or closed position of laughter
( )	Single Parentheses:	Transcriptionist doubt about talk. Alternative hearings.

(( )) Double Parentheses: Additional details, or an event or sound not easily transcribed.

APPENDIX B
Relevant Codes

1. The type of physician opening question. For example, an opening could be coded "open" (e.g., "How can I help you?"; "What can I do for you?"; "What's up with Suzy today?"), or a request for confirmation (e.g., "So, Jerry has a sore throat today, huh?"), or a history taking question (e.g., "So how long has Jeremy had the fever?"). Finally, an encounter could be coded as not having an opening question if the parent offers an explanation of the complaint prior to a physician's solicitation.

2. The type of problem presentation given (e.g., "He has a runny nose and a sore throat" would be coded as symptoms only; "He's had a terrible sore throat so I thought maybe it was strep" or "He has green nasal gunk" would be coded a candidate diagnosis.

3. The location of a candidate diagnosis (if there was one; e.g., during the problem presentation, during the history taking, during the physical examination, or following the diagnosis delivery).

4. Whether the physician addresses the problem—as presented by the parent—in their diagnosis (e.g., agrees with or confirms what the parent suggested—"Yeah, he does have an ear infection"—or disagrees with or disconfirms what the parent suggested—"So, I don't think she's got a sinus infection")

5. Whether the physician mentions antibiotics during their treatment recommendation. Specifically, I coded for one of the following: (a) "no mention of antibiotics," (b) "mentioning that antibiotics were not needed," (c) prescribing antibiotics, or (d) offering a "contingency plan" (i.e., the physician denies antibiotics during the visit but offers to prescribe them by phone if the parent calls in the next several days and the child is no better or worse (Mangione-Smith et al., 2000) or a delayed prescription (i.e., the physician provides a prescription but recommends not filling it for several days until the parent has determined that the child "really needs the antibiotic").[20]

[20]Although delayed prescriptions and contingency plans were originally considered separately, they were ultimately combined for purposes of this analysis because they behaved very similarly.