NEGOTIATING CHILD HEALTH CARE ROUTINES DURING PAEDIATRICIAN–PARENT CONVERSATIONS

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Abstract Paediatrician–parent conversation is examined, using an adapted Bargaining Process Analysis coding scheme to determine how interactants sustain traditional roles versus encourage mutual involvement. Findings demonstrate that paediatricians rely on use of requests, whereas parents often use confirming messages. During interactions in which parents present specific concerns to paediatricians who address those concerns, parents use more requests than in situations where no specific concerns are voiced by parents. Moreover, during conversations when parents do not raise concerns, paediatricians are less confirming and parents more confirming than in the situations where parents present issues. The discussion acknowledges that many options exist to promote involvement other than those observed in this project. Change may create more opportunities to discuss areas of misunderstanding or disagreement regarding child care and development.

Many physicians and health communication researchers prefer to view communication as a reciprocal process (Arnston, 1985). To address communication during medical interaction from this perspective places the focus on how physicians and patients influence each other rather than on just what physicians do or what patients do. Since therapeutic partnerships in which patients negotiate treatment regimens with physicians have been found to increase patients' cooperation with providers (e.g. Anderson 1982; Korsch, 1989; Molteni & Garske, 1983), the examination of medical interaction as a process of negotiation is pragmatically and theoretically important.

Child Health Care and Negotiation

One area of medical care in which negotiation may be particularly significant is paediatric medicine. Paediatricians depend upon the cooperation of parents
to provide health care for children. Paediatrician–parent conversations provide opportunity for physicians to promote children's normal growth and development, and for parents to express concern as well as confidence (Olson & Kittredge, 1986). Few other provider–patient situations, however, afford as great a possibility for conflict to exist. Child care practices are often tailored by familial custom or convenience rather than medical science. For example, many parents give infants bottles while they are lying down. Medical research associates this practice with increased incidence of ear infections, but parents of young children may be unaware of the association (Williams, et al, 1990). Well child exams, in particular, provide a setting for paediatrician–parent conversation to reveal such practices and to negotiate correct routines.

Negotiation is characterised by the mutual involvement and influence of communicators (Kimmel, Pruitt, Magenau, Konar-Goldband & Carnevale, 1980). By definition, children seen for well child care are believed to be healthy. Parents who make and keep these preventive check-ups demonstrate a willingness to cooperate with providers of organised health care. The negotiation of child care routines during well child exams, however, will depend upon the competence of the communicators. And, competence in turn involves managing issues of distance, coherence and structuring of conversations.

**Competent negotiators**

The concept of distance addresses ways speakers establish rights and obligations, focusing on behaviours that create psychological, social, and role distance (Donohue, Diez, & Weider-Hatfield, 1984). Competent negotiators infer how the other defines the situation, judge expectations regarding the rights and obligations in force, and use their abilities to affect how a situation is defined (Diez, 1983; Roloff, 1987). Expectations regarding rights and obligations during paediatrician–parent conversation concern issues such as control, status, and unequal resources. Time and again, the physician is defined as the power-holder in the medical situation (Rodin & Janis, 1979). The physician's expertise (Burgoon, Parrott, Burgoon, Birk, Pfau & Coker, 1990) and information base (Hardesty, 1988) function to maintain an imbalance of power. In addition to this fact, physicians have legitimate power to ask invasive or sensitive questions (Parrott, Burgoon, Burgoon & Le Poire, 1989). Parents may regard topics as sensitive because to reveal certain types of information suggests failure to perform appropriate parenting tasks.

Physicians' control of medical interaction increases distance between paediatricians and parents. Competent negotiators, both parents and paediatricians, use their abilities to reduce this distance and to promote mutual involvement. There are a number of ways that involvement can be facilitated. Physicians, for example, may frame questions less directly or solicit insights from parents. In this study, we are interested in the interaction sequences related to parents' presenting concerns about their child to the paediatrician, and whether the parental concerns were addressed during the visit.
The structuring task of negotiation addresses how the conversation is managed between communicators to facilitate or inhibit mutual involvement. When a physician consistently initiates topics for discussion, traditional rights and obligations are likely to be maintained. Yet, if a parent offers procedural directions, this conversational move may demonstrate more involvement. The coherence task is a sense-making function, concerning the ability of communicators to understand (Diez, 1983). When a physician uses complex medical terminology or changes topics frequently, parents may be less able to make sense of what has been said. The use of formal and precise language by paediatricians with parents demonstrates competence and efficiency (Worobey, O’Hair & O’Hair, 1987) but it also is likely to reduce parental involvement. Arnston & Philipsborn (1982) found that parents assumed a passive role during technical interactions with paediatricians.

The negotiation of child health care routines requires the reworking of traditional paediatrician and parent roles during medical interaction. This may happen because paediatricians encourage parents to ask questions or to challenge information and recommendations, and parents initiate topics for discussion and ask more questions. In sum, the interaction paediatricians and parents have during well child exams provides an appropriate setting for negotiation to take place. This project examines the sequencing of negotiation moves and the outcome associated with negotiation.

The Negotiation Coding Scheme

Several typologies of tactics and strategies that negotiators use have been advanced, including the Bargaining Process Analysis (BPA) system (see Hopmann & Walcott, 1976; Walcott & Hopmann, 1975). We adopted a version of the BPA system to describe two major negotiation strategies used during these encounters, each with two tactics. The first strategy is acknowledgement which may be accomplished through requests or confirmation. The second strategy is facilitation which may be accomplished through providing explanatory information or describing procedural behaviours. In paediatrician–parent conversation, communicators rely on strategies that maintain traditional rights and obligations in the setting. Role maintenance is achieved by the use of four tactics, as summarised in Figure 1.

Requests include events in which an individual seeks a response from the other communicator, including understanding or failure to understand, and the ability or inability to assist or cooperate with the other communicator. Confirmation, a tactic not included in the original BPA, is an important form of acknowledgement in the medical setting. Parents and paediatricians often express agreement with one another. And, this agreement appears to acknowledge understanding. Paediatricians and parents do not provide elaborated accounts of agreement, however, so use of BPA’s other-supporting arguments, for example, does not occur.

Preliminary analysis also demonstrated that other BPA strategies and tactics appear too infrequently in paediatrician–parent conversations to be validly or reli-
Strategy I. Acknowledgement

Speech acts in which the speaker indicates understanding or effort to understand the other's position.

Tactics

(a) Request: speech acts in which one party explicitly asks for assistance of the other party or about the ability of the other to provide needed assistance.
   Paediatrician: 'He's eating how much?'
   Parent: 'Could you check his hearing?'

(b) Confirmation: speech acts that affirm receipt of information; statements that suggest agreement (disagreement) with other's point-of-view.
   Paediatrician: 'I see.'
   Parent: 'Yeah, that's what I thought.'

Strategy II. Facilitation

Speech acts in which the speaker asserts an interest and willingness to negotiate.

Tactics

(a) Explanatory information: speech acts in which one party or the other gives details or a report in order to be understood or share a concern, or indicates to the other why assistance is needed.
   Paediatrician: 'Do you understand that to measure the correct dosage, you fill the dropper to the second line?'
   Parent: 'So, I've only been giving her a bottle at night.'

(b) Procedural behaviour: speech acts that move discussion forward by focusing on routines.
   Paediatrician: 'Why don't you take off her clothes and let me check her out.'
   Parent: 'Here we go, one more arm out of the shirt sleeve.'

Figure 1  Negotiation strategies, tactics and examples

ably examined in this project. Thus, paediatricians' and parents' use of request, confirmation, procedural behaviour, and explanatory information was examined to evaluate the process of mutual influence and the likelihood of parents presenting a concern to their children's physicians.

Method

Participants and clinic procedures

Thirty mothers in attendance for well child exams at the paediatric clinic of a teaching hospital in a large southwestern city participated. Mothers ranged in age from 15 to 46 years of age, with a mean of 26 (SD =6) and a mode of 19. The children ranged in age from one month to 15 months. Twelve parents reported that their annual household income was less than $5,000; eight reported between $5,000 and $10,000; nine between $10,000 and $15,000. One mother did not respond to the income question.

Eight paediatric residents participated: each physician was recorded a minimum of twice, with one recorded six times. The clinic's receptionist sought partici-
pation from mothers who had appointments scheduled with the participating paediatricians. Written permission to audiotape the medical interactions was obtained. A ceiling-mounted microphone, which was visible in the medical examining room, was attached to a recording unit located in a separate room. The entire interaction between paediatricians and mothers was recorded, and verbatim transcriptions were made of the 30 interactions.

Coding process

The unit of speech coded in this study was the psychological thought unit, often a simple grammatical sentence, but always the expression of a single idea (Markman & Notarius, 1987). Three coders utilised the 30 transcripts, attaining a unitising reliability of 0.96 (Guetskow, 1950). A total of 7,440 units were analysed from approximately 18 hours of interaction. The mean number of spoken acts by paediatricians during the 30 interactions was 146 (SD = 63); the mean number of spoken acts by the parents was 102 (SD = 46). The transcripts were coded using the four categories by two coders. Cohen's kappas (1960) were: request (0.61), confirmation (0.67), explanation (0.69), and procedural behaviour (0.62).

In addition to coding the transcripts for the presence of the four communication categories, two additional coders evaluated the transcripts to determine whether or not the parent presented a specific concern to the paediatrician, and if the parent presented such a concern, whether (or not) the paediatrician addressed the concern. This procedure initially led to the formation of three groups: parents who presented no concern (n = 11), parents who presented a concern that was addressed by the paediatrician (n = 16), and parents who presented a concern that was not addressed (n = 3). Coders attained 0.87 agreement for these outcomes.

Due to the small number of parents who presented a concern that was not addressed by a paediatrician, the decision was made to combine the data from the two dialogues where the paediatrician did not address a parental concern with data from parents who presented no concern. Thus, analyses relating to outcomes associated with paediatricians' and parents' use of the negotiation tactics is based on two groups: parents who present a concern that was addressed by the paediatrician (n = 16), and parents for whom the paediatrician does not address a specific parental concern (n = 14).

Data analysis

The average frequency of use by paediatricians and parents for each negotiation tactic was compared using paired sample t-tests to provide an assessment of dependency of use. Additionally, paediatricians, and parents' dependency of use was assessed using Pearson correlation coefficients. Before either the t-tests or correlation coefficients were computed, each person's frequency of use score for each tactic was divided by the total number of spoken acts. This adjusted for individual differences in overall verbal output. Following this adjustment, an arcsin transformation was performed on each of the proportions to stabilise the variance (Winer, 1971).
The average frequency counts for each communication category were also analysed using log-linear analysis (Everitt & Dunn, 1983; Knorr & Burke, 1980; Marascuilo & Serlin, 1988). After conducting a test of the equiprobability model and rejecting the hypothesis that all tactics are equally likely to be used, analysis focused on whether paediatricians and parents differ in likelihood of use and the probability of outcomes associated with use. All models contain actor (paediatrician), role (paediatrician/parent), and communication tactic main effects. All models also contain an actor by role interaction that is automatically fixed by the sampling plan. Additionally, the models contain the communication tactic main effect; the role by communication tactic interaction; the actor by communication tactic interaction; and both role by tactic and actor by tactic interactions. Construction of models proceeded in a hierarchical fashion (Knorr & Burke, 1980), and several criteria were used to select the best fitting model. The probability level was set at 0.10 to 0.35, in favour of arguments advanced by Knorr and Burke (1980) to promote greater control over both Type I and Type II. The model that added a significant component chi-square to the model containing just the communication main effect was selected as the best fit (Knorr & Burke, 1980). In the situation where two models explained the data, the more parsimonious explanation was selected. The appearance of zeros in the cells occurred in constructing the models, probably due to the finite sample and small probability of some categories appearing rather than a consequence of the structure of the problem. For example, parents' use of procedural behaviour during conversation is less likely to occur than paediatricians' use of procedural behaviour, but there is no reason why parents' conversation could not be procedural in nature. The decision was made to add a small value to every cell in the body of the table (0.5), including the cells with non-zero frequencies, as suggested by Goodman (1970). This process is viewed as conservative in nature and may underestimate effect parameters, as well as their significance (Knorr & Burke, 1980).

Results

Medical interaction roles and message use

To begin to evaluate relationships between paediatricians' and parents' selection of negotiation messages, paired sample t-tests and simple correlation coefficients were calculated. Paediatricians and parents differ significantly in their use of confirmation messages with mothers more likely to be confirming in their message behaviour than paediatricians. But there was a significant correlation between the use of confirmation messages by mothers and paediatricians indicating that the use of these messages by mothers may have cued their use by the doctors. Use of explanatory information, procedural behaviour, and request do not differ in overall use by the role of the speaker but there is a significant correlation in the use of explanatory information and procedural information in these dyads. Finally, there seemed to be no systematic relationship in these dyads in the use of requests. Paediatricians' use of requests does not function as a cue for parents' use. Likelihood of procedural behaviour, explanatory information, and confirmation by one communicator or the other may be cued by the other communicator's use.
### Table 1  Mean frequency and paediatrician–parent correlations for negotiation tactics

<table>
<thead>
<tr>
<th>Negotiation Tactic</th>
<th>Mean Frequency of Use</th>
<th>t-value</th>
<th>Correlation</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Paediatrician</td>
<td>Parent</td>
<td>(df = 29)</td>
</tr>
<tr>
<td>Request</td>
<td>34.37</td>
<td>10.47</td>
<td>0.76ns</td>
</tr>
<tr>
<td>Explanatory information</td>
<td>49.35</td>
<td>63.97</td>
<td>1.34ns</td>
</tr>
<tr>
<td>Procedural behaviour</td>
<td>6.27</td>
<td>0.60</td>
<td>1.83ns</td>
</tr>
<tr>
<td>Confirmation</td>
<td>9.83</td>
<td>25.01</td>
<td>8.32**</td>
</tr>
</tbody>
</table>

* p < 0.01; ** p < 0.001

### Table 2  Log-linear analysis of speaker roles on use of negotiation tactics

<table>
<thead>
<tr>
<th>Model*</th>
<th>df</th>
<th>Ratio</th>
<th>p</th>
<th>df</th>
<th>G</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>M (equiprobability)</td>
<td>3</td>
<td>21.81</td>
<td>0.00</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(1) RP × C</td>
<td>60</td>
<td>84.75</td>
<td>0.02</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(2) RP × RC</td>
<td>40**</td>
<td>43.56</td>
<td>0.32</td>
<td>20</td>
<td>41.19</td>
<td>&lt;0.01</td>
</tr>
<tr>
<td>(3) RP × PC</td>
<td>18**</td>
<td>52.91</td>
<td>0.00</td>
<td>38</td>
<td>31.84</td>
<td>&gt;0.05</td>
</tr>
<tr>
<td>(4) RP × RC × PC</td>
<td>5**</td>
<td>11.72</td>
<td>0.04</td>
<td>55</td>
<td>73.03</td>
<td>&gt;0.05</td>
</tr>
</tbody>
</table>

* R = role, P = paediatrician, and C = negotiation tactics (request, confirmation, procedural behaviour, and explanatory information)
** = df due to zeros in one or more cells, leading to the estimation of parameters

### Table 3  Proportion of message tactics used by role during paediatrician–parent interaction*

<table>
<thead>
<tr>
<th>Message</th>
<th>Role</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Paediatrician</td>
</tr>
<tr>
<td>Request</td>
<td>0.77(+)</td>
</tr>
<tr>
<td>Explanatory information</td>
<td>0.43</td>
</tr>
<tr>
<td>Procedural behaviour</td>
<td>0.86(+)</td>
</tr>
<tr>
<td>Confirmation</td>
<td>0.29(−)</td>
</tr>
</tbody>
</table>

* The proportions sum to one across the rows of the table. These indicate differences between the roles in use of negotiation messages. Positive or negative signs in parentheses indicate whether the observed value is more or less than that expected by chance (p < 0.05), as indicated by the adjusted residuals
The log-linear analysis involving medical interaction roles and message use indicates that the model containing the role type interaction fits better than a model including only the communication categories. Examination of proportions of messages used by role type indicates that paediatricians use more requests and procedural behaviours, while parents are more likely to be confirming during medical interaction. Adjusted residuals support the conclusion, however, that the probability of use of explanatory information was not observed to significantly differ from what was expected for either role.

**Medical interaction roles, message use and outcome type**

The log-linear analysis involving medical interaction roles, message selection, and outcome type indicates that the model containing the role by communication category is a better-fitting model than one containing just the communication categories. Examination of messages used regardless of role type indicates that more procedural behaviour conversation takes place during interactions where parents raise a concern that paediatricians address than occurs when parents do not independently introduce concerns. In addition, paediatricians use fewer questions and parents ask more questions in situations where a parent raises a concern that the paediatrician addresses. Paediatricians are more confirming and parents less confirming when parents present specific issues to be discussed.

On the other hand, during conversations in which parents do not present a specific concern to be discussed, parents are observed to be less likely to make requests while paediatricians increase use of this message. Use of explanatory information by both paediatricians and parents is consistent, regardless of outcome. Paediatricians’ conversation focuses less on procedural behaviour when parents raise no specific concerns.

**Table 4** Log-linear analysis of outcome type for use of negotiation tactics

<table>
<thead>
<tr>
<th>Model*</th>
<th>df</th>
<th>Ratio</th>
<th>−p</th>
<th>df</th>
<th>G</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>(1) RO × C</td>
<td>12</td>
<td>46.05</td>
<td>0.00</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(2) RO × RC</td>
<td>4**</td>
<td>4.86</td>
<td>0.30</td>
<td>8</td>
<td>41.19</td>
<td>&lt;0.01</td>
</tr>
<tr>
<td>(3) RO × OC</td>
<td>8</td>
<td>43.54</td>
<td>0.00</td>
<td>4</td>
<td>2.51</td>
<td>&gt;0.05</td>
</tr>
<tr>
<td>(4) RO × RC × OC</td>
<td>0**</td>
<td>2.35</td>
<td>0.67</td>
<td>12</td>
<td>43.70</td>
<td>&lt;0.01</td>
</tr>
</tbody>
</table>

* R = role, O = outcome, and C = negotiation tactics
** = df due to zeros in one or more cells, leading to the estimation of parameters
<table>
<thead>
<tr>
<th>Message</th>
<th>Parent's Concern</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Addressed</td>
<td>Not Addressed</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Paediatrician</td>
<td>Parent</td>
<td>Paediatrician</td>
</tr>
<tr>
<td>Request</td>
<td>0.35</td>
<td>0.13</td>
<td>0.42</td>
</tr>
<tr>
<td>Explanatory information</td>
<td>0.22</td>
<td>0.29</td>
<td>0.21</td>
</tr>
<tr>
<td>Procedural behaviour</td>
<td>0.50(+)</td>
<td>0.07(−)</td>
<td>0.36(+)</td>
</tr>
<tr>
<td>Confirmation</td>
<td>0.17(−)</td>
<td>0.32(+)</td>
<td>0.11(−)</td>
</tr>
</tbody>
</table>

* The proportions sum to one across the rows of the table. These indicate differences between the roles in use of negotiation messages by outcome type. Positive or negative signs in parentheses indicate whether the observed value is more or less than that expected by change ($p < 0.05$), as indicated by the adjusted residuals.

**Discussion**

Paediatricians' and parents' conversations during well child exams reveal a great deal of reliance on use of requests and confirmation, with requests occurring predominantly as a function of paediatricians' messages as parents assume the confirming role. Moreover, requests occur without the parent cueing the questions or the parent responding to requests with their own requests. Paediatricians' requests and parents' confirmation may illustrate one of the basic units for sequential turns at talk, the question-answer adjacency pair (Sacks, Schegloff & Jefferson, 1978). Paediatricians not only ask parents straightforward questions, some are cast in such a fashion as to provide information at the same time. For example, the paediatrician may ask, 'Does she follow you with her eyes?' or 'Have you noticed at this age that she follows you with her eyes whenever you leave the room?' In the latter case, the parent is likely to discern that normal development is associated with this behaviour. As an alternative, the paediatrician could say, 'Let's talk about your child's physical development. Tell me what you've noticed. First, let's consider her eyesight'. This places more responsibility, as well as opportunity, on parents to disclose what they think and feel regarding their children's health. Future research could profitably be directed toward examining various types of direct and indirect request strategies used by physicians and their associated outcomes.

The conversation that paediatricians and parents have during well child exams suggests that one communicator's behaviour cues the other communicator's behaviour when the messages include explanatory information. A parent may explain what the child is eating, and the paediatrician may respond by explaining that children at the age of the parent's child should begin to add solid foods to the diet. Paediatricians may explain that a child is developing normally within the
framework of birth weight and height, and the parent may explain that the child is smaller than a neighbour’s child of the same age. The nature of well child exams is such that a great many procedures, such as weighing the child, measuring the child, checking the child’s hearing, eyesight, reflexes, heartbeat, and so on comprise the activities. Not surprisingly, the paediatrician’s conversation focuses on the process. Messages associated with procedure increase when a parent reflects a specific concern. This likely relates to the paediatrician’s effort to address the issue by examining the child in reference to the parent’s concern and talking about the process.

The patterns of message use associated with the likelihood of parents’ raising specific concerns with paediatricians suggest that parents do initiate more of the topics for conversation by their requests in these situations, which shifts the traditional roles somewhat, so that interactional control is less the responsibility of the physician. Additionally, in these conversations where parental concerns are more likely to be raised and addressed by paediatricians, the parents are less confirming while the paediatricians are more confirming, suggesting that parents may find the atmosphere to be more supportive and comfortable for raising specific issues.

Limited use of available tactics demonstrated by both paediatricians and parents is an important finding that indicates traditional roles are well-established and maintained. Particularly when it relates to preventive health care, the use of follow-up messages, for example, could be purposively integrated into the range of messages used by both parties to promote greater mutual involvement. Paediatricians might reflect on upcoming issues and events that parents will experience, and make specific commitments regarding the handling of such events; parents might do the same. Additionally, the promise of something to be gained by these meetings should increase the interest of both parties, facilitating the likelihood that future conversations will occur.

References


PAEDIATRICIAN-PARENT CONVERSATION


