Changing Family Physicians’ Visit Structuring Behavior: A Pilot Study

Leonard J. Haas, PhD; John Houchins, MD; Jennifer Paul Leiser, MD

Objective: This study assessed the degree to which family physicians elicit patients’ agendas and negotiate the agenda of the medical visit, related this behavior to late-arising patient concerns and satisfaction with the visit, and assessed the degree to which visit-structuring behavior can be modified by a brief workshop. Methods: We reviewed 65 audiotaped clinic visits conducted by three experienced family physicians before (36 visits) and after (29 visits) a workshop on structuring outpatient visits. We also collected patient and physician satisfaction ratings through post-visit questionnaires. Results: Patient concerns were explicitly elicited in 64% of pre-workshop visits and 90% of post-workshop visits. Significant increases occurred in agenda setting (14% of pre-workshop visits, 52% of post-workshop visits), agenda negotiating (0% of pre-workshop visits, 38% of post-workshop visits), and physician satisfaction with visits. Conclusions: A brief continuing medical education intervention improved family physicians’ visit structuring.

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Conducting an effective primary care medical visit is a complex communication challenge. Patients’ expectations of help from their physicians may be high. Physicians often need to assess a wide variety of problems and illnesses under significant time pressure. In addition, communication about the essential problems to be addressed in the visit may be obscured by one or more complicating factors. First, patients often come to primary care medical visits with more than one concern. Second, the physician must establish the true concerns of the patient, which are not always the same as the patient’s stated reasons for the visit. Third, what the patient considers the most pressing problem may not always be the problem that the physician considers the most medically important. Fourth, patients may not always tell their physicians about their most pressing concerns because of fear, embarrassment, confusion, or because the physician directs the interview into different areas. Fifth, patients may bring up significant issues at the close of the visit. This may leave physicians short of time and less likely to fully explore potentially complex and important problems.

Ideally, the physician, in collaboration with the patient, decides how to best use the time available for the medical visit. If there is a single, clear chief complaint or presenting problem, this is a straightforward process. If, however, the patient has more than one problem, or the patient is unclear about the problem(s), the physician must spend time “structuring the encounter.” This structuring is comprised of at least two components. First is eliciting the full spectrum of patient concerns or “soliciting the agenda.” The second is identifying which issues are highest priority and obtaining the patient’s agreement on the plan for the visit or “negotiating the agenda.” Despite recommendations to solicit and prioritize the patient’s concerns, existing research shows that family physicians and other primary care providers often take charge of medical visits almost immediately, typically directing the focus of those visits to the first concern expressed by the patient.

Research that demonstrates the effect of change in physician visit structuring on late-arising concerns (the well-known “Oh, by the way, doctor . . .” phenomenon) is also needed. These late-arising concerns are a source of frustration for primary care physicians and contribute to inefficiency in the office visit. The present study attempted to assess whether improved visit structuring by family physicians would reduce the rate of late-arising concerns.

We were interested in finding evidence of agenda eliciting, agenda setting, and agenda negotiating in visits.
conducted by family physicians and in the effect on these behaviors of a brief educational intervention. Our intent was to determine: (1) Would improved visit structuring reduce the number of late- arising concerns? (2) Would such changes improve physician and patient satisfaction with the visit? and (3) Would such changes increase the likelihood that both the patient’s actual reason for coming to the visit and the physician’s main concern for the patient are addressed?

Methods
This study used a one-group pretest-posttest design. The study was approved by the University of Utah Institutional Review Board.

Subjects
Subjects were providers and patients. Provider subjects were all of the faculty physicians, other than one who was an investigator, practicing at a university family practice clinic (n=3). Two physicians were female and one male; they had an average of 5 years of post-residency practice experience. All were MDs and certified by the American Board of Family Practice. The patient subjects were adult English-speaking outpatients who were willing to participate in the project (n=50). Post-workshop patient subjects were English-speaking adult outpatients who were willing to participate and who had not previously participated (n=29).

Instruments
Patients filled out a six-item post-visit questionnaire that asked the main reason for the visit, whether the main reason was addressed during the visit, the total number of problems the patient wished to discuss, reasons that problems were not discussed (if applicable), the degree to which the doctor “listened carefully,” and overall satisfaction with the visit. Physicians completed a five-item visit evaluation, which asked them to identify the main reason for the patient’s visit, whether this reason was addressed, and whether this primary patient reason was also the physician’s chief concern. In addition, physicians rated the efficiency of the visit as “efficient,” “not efficient,” or “not sure.” They also rated their satisfaction with the visit using a 5-point Likert scale for completely to not at all satisfied. Finally, they reported whether their main concern was the same as the patient’s and if the discrepancy was resolved. Copies of the instruments are available from the authors on request.

Baseline Data Collection
All patients waiting to see each of the participating physicians were asked if they were willing to participate in the study. Willing patients signed an informed consent statement. This statement indicated that the purpose of the study was to “study how [physicians] communicate with their patients” and that it would involve audiotaping the visit. Physicians were told that the purpose of the study was to “better understand primary care visits” and that their audiotaped communications with their patients would be rated. They also signed informed consent statements.

When the patient was called into the examination room, a research assistant (RA) set up a cassette audiotape recorder to record the visit. Physicians’ patient visits for a clinic session that day were recorded, up to a maximum of 12 (total of 36 patient visits). At the close of each patient’s visit, the RA was alerted. The patient was then asked to complete the evaluation form. Physicians completed their evaluation forms at the end of the clinic session.

We needed to recruit 50 patients to obtain the planned 36 useable recordings. This was because of recording problems with eight visits and because of six patients leaving the clinic without completing the post-visit evaluation.

Audiotape Ratings
Two of the authors conducted rater training. Raters were blind to the study hypotheses and were unaware of the educational intervention. We reviewed the first set of audiotapes collected with the two RAs. Visit length was determined by noting the time between the physician’s arrival in the exam room and the physician’s conclusion of the visit. We defined late-arising concerns as those emerging when the visit was drawing to a close. We defined agenda eliciting as the physician asking the patient the reason(s) for the visit. We specified that the questions must have been explicitly asked or stated. Implicit questions such as “You’re not feeling well today?” were considered too general to be rated as agenda-eliciting questions. Agenda-setting comments were defined as summary statements by the physician indicating which topics would be covered in the visit. Agenda-negotiating statements were defined as discussions between physician and patient concerning which topics would be covered and in what order. RAs rated these activities as present or absent. We discussed examples of each until complete inter-rater agreement was obtained.

Subsequently, the two RAs reviewed each audiotaped visit separately. They then compared their ratings and recorded them as a joint rating. Two of the authors resolved any disagreements.

Raters noted whether or not there was an attempt by the physician to elicit additional concerns beyond the first one expressed, whether more than one concern was expressed, whether there was an attempt to negotiate or structure the agenda, whether an agenda was set, and whether late-arising concerns emerged.
Intervention
Following the collection of pretest data, we conducted a 1-hour workshop on agenda eliciting, agenda setting, and visit structuring for the physician participants (one physician was unable to attend the workshop and was given equivalent individual coaching by one of the authors). We reviewed research findings and presented the pre-workshop data as feedback. Participants then practiced visit structuring with a simulated patient who had been coached to have a “hidden agenda” (she was scripted to be an athlete presenting with an acute knee problem who was actually concerned about more chronic bone pain, which she feared was bone cancer).

Post-intervention Data Collection
In the weeks after the workshop, an additional 12 patients per provider were recruited, and these visits were audiotaped and rated. Participating patients and physicians completed the same evaluation forms used in the pretest. Posttest data collection was complicated by one physician leaving the clinic before the close of the study, allowing only nine visits to be taped for this individual. An additional physician permitted only eight visits to be recorded before withdrawing from the study because of concern that data collection was slowing her clinic schedule.

Data Analysis
Results were analyzed for statistical significance using Fisher’s exact test. A one-sided test was used, and significance was defined as a P value below .05.

Results
Patient Survey
Table 1 details patients’ survey responses. Patients presented with multiple problems, and satisfaction was uniformly high both before and after the workshop.

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<thead>
<tr>
<th>Table 1</th>
<th>Patient Survey</th>
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<tr>
<td></td>
<td>Pre Workshop</td>
</tr>
<tr>
<td>Problems per visit</td>
<td></td>
</tr>
<tr>
<td>Doctor answered main reason for visit</td>
<td>36/36 (100%)</td>
</tr>
<tr>
<td>Doctor answered all concerns</td>
<td>36/36 (100%)</td>
</tr>
<tr>
<td>Doctor listened carefully</td>
<td>36/36 (100%)</td>
</tr>
<tr>
<td>Complete satisfaction</td>
<td>36/36 (100%)</td>
</tr>
</tbody>
</table>

* Fisher’s exact test, one-sided

There were no statistically significant changes found in the post-intervention survey.

Physician Survey
Table 2 details physicians’ survey responses. Physician satisfaction with visits increased after the workshop at a statistically significant level (P = .0163). Ratings of visit efficiency increased in the predicted direction but not at a level that reached statistical significance.

<table>
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<th>Table 2</th>
<th>Physician Survey</th>
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<tr>
<td></td>
<td>Pre Workshop</td>
</tr>
<tr>
<td>Reason for main visit addressed</td>
<td>36/36 (100%)</td>
</tr>
<tr>
<td>Same main concern as patient</td>
<td>33/36 (92%)</td>
</tr>
<tr>
<td>Main reason discrepancy resolved</td>
<td>2/3 (67%)</td>
</tr>
<tr>
<td>Efficient</td>
<td>33/36 (92%)</td>
</tr>
<tr>
<td>Complete satisfaction</td>
<td>15/36 (42%)</td>
</tr>
</tbody>
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* Fisher’s exact test, one-sided
The physicians in the study indicated informally that they believed the intervention helped them address the patient’s concerns more effectively. However, they also expressed fear that eliciting the patient’s complete agenda would slow them down, and our results did indeed show a nonsignificant trend supporting this concern.

We identified issues that could be fruitfully pursued in subsequent work with a larger sample. For example, a study with a larger sample could further address the relationship between increased visit structuring and increased visit time. Additionally, an important area of investigation is the influence of unresolved differences in physicians’ and patients’ agendas. Even in this small sample of visits, open disagreement about the agenda was identified in 14% of visits. Another issue for further study is that of physician concerns that are not addressed in the visit. Further research should also evaluate the persistence of the behavior changes found in our pilot study. Potentially, teaching physicians these changes could improve diagnostic efficiency, bring hidden problems to light, identify areas for follow-up, etc. It is likewise important to study the impact of improved physician skill at visit structuring on the quality of care. If a brief intervention such as this workshop can be shown to be effective in a larger study, it could readily be incorporated into residency training or continuing medical education programs, with benefits to both physicians and patients.

Limitations
Our conclusions are limited by the small size of our study and the brief follow-up period over which we assessed changes. Our raters noted difficulties in assessing visit length, which may have resulted in inaccuracies. Our study did not address the effect of the changes in behavior we observed on patient outcomes other than satisfaction.

Conclusions
In this pilot study, we observed improved visit structuring by three experienced family physicians after a brief educational intervention. We conclude that physicians can change their visit-structuring behavior after a brief intervention and that this may improve physicians’ satisfaction and may have an effect on the process and the outcome of primary care medical visits.

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REFERENCES