Wrapping things up: A qualitative analysis of the closing moments of the medical visit

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Abstract

The purpose of this preliminary study is to develop an operational definition of the closure phase of the medical visit. A listening group developed a definition of closure by consensus based on audiotaped data from 22 office visits to physicians. The group noted new problems in closure not previously raised. Closure was defined as the final phase of the medical visit in which the doctor and patient shift perspective to the future, finalize plans, and say goodbye. Two distinct organizational frameworks of closure are outlined. Thirty-six percent of closures were interrupted in some way. New problems occurred in 23% of visits, even those with open-ended beginnings and early physician requests for all patient concerns. Doctors' communication involved expression of emotion, patient education, clarification, summary, and parting comments. Patient communication included expression of emotion, information sharing, and parting comments. Doctors' communication skills for closure are proposed. Closure is a distinctive phase of the visit with an organizational framework and specific tasks. The frequency of new problems in closure suggests that physicians may have the potential to improve their effectiveness.

Keywords: Closure; Medical interview; Doctor-patient communication; Interruptions

1. Introduction

The last few minutes of a visit to a primary care doctor are important to patients. They can influence patients' satisfaction with care, how likely patients are to follow the doctor's instructions, and the outcome of their illness [1–14]. The final minutes of the medical visit are the doctor's 'last chance' in that visit to help the patient understand the diagnosis and treatment and make plans for the future. In these few moments a complex set of interactions takes place between doctor and patient. Appropriate use of communication skills during these highly
focused closing minutes may be crucial to patient compliance, health outcome, and physician efficacy in a managed care setting.

The closing of the visit follows the educational segment and is the last of five phases of the medical encounter: greeting, history, physical examination, educational phase and closure [15–19]. Studies of the educational phase indicate that if patients truly understand and agree with the diagnosis and treatment plan they are more likely to follow recommendations and experience better health outcomes [6,13,20]. These studies did not distinguish between events that occur in the educational phase and those that occur in closure. It is possible that the nature of communication in closure may also influence health outcomes. This question cannot be studied without first describing what typically occurs in the closing minutes of visits.

Communication experts suggest that during closure physicians should summarize the visit, clarify the plan of care, check for patient understanding, establish plans for interim contact, and demonstrate caring about the patient [15,21]. The purpose of this study was to observe and describe patients’ and doctors’ communication during actual medical visits using qualitative research techniques [22,23]. Qualitative, as opposed to quantitative techniques provide empiric data unconstrained by existing quantitative data gathering instruments. It is important to gather this descriptive information to provide a rich foundation for future research on closure. We conducted this study concurrently with a quantitative analysis of communication during the closing minutes of the medical visit [18].

This study addresses two questions: (1) What is the operational definition of closure in the medical visit in terms of doctor and patient communication behaviors? and (2) What is the range and flow of doctor and patient verbal communication behaviors within the closure phase? The study provides a definition of closure based on its actual practice by primary care doctors and patients. It also catalogues the range of communication during closure by specific behaviors and themes to highlight areas which may need further investigation or educational efforts.

2. Methods

2.1. Participants

This study used a subset of audiotapes from a larger project already in progress (conducted by WL) that examined doctors’ communication skills. Fifty community-based practicing physicians in general internal medicine or family practice and 550 of their patients participated in the larger study. The physicians were recruited by a letter from the Oregon Board of Medical Examiners and one of the investigators (WL) to participate in a study of communication skills. The mean number of years from graduation was 15 (range 3 to 47). One physician per practice site participated.

Patients were solicited by a research assistant from the waiting rooms of participating doctors on the days designated for taping. All patients had seen their doctor on at least two occasions and consented in writing to the study. Patients were taped only once.

As part of the larger study the physicians agreed to attend one of two Continuing Medical Education (CME) programs addressing communication skills and to allow audiotaping of ten patient visits in their offices. The CME program is described in detail elsewhere [24]. While there is no set curriculum, faculty encourage patient-centered communication techniques. The program does not include any instruction related to closing the interview.

This study drew from 88 audiotapes recorded after the CME course. These tapes were used because they had not yet been analyzed in any way at the start of this study. A 25% sample of the 88 tapes (22 tapes) was drawn using a random number table. These 22 tapes, representing 14 physicians, were targeted for initial qualitative analysis. Tapes recorded after the CME course were considered acceptable to study because closure was not addressed in the course.
and because participants were never told that closure would be specifically investigated.

2.2. Listening group

A group of listeners included four of the authors: two general internists, a clinical psychologist, and a communications professor with a chronic illness who therefore could also provide a patient's perspective on the communication dynamics. The group members were selected based on their interest in the topic and the range of perspectives they provided. Each member of the listening group was familiar with the literature on doctor-patient communication, but none was aware of any published definition or descriptions of closure of the medical visit. One author (WL) was not part of the listening group but served as an observer of the research process. Its clinical value, and the communication dynamics of the listening group itself. Only one of the authors (JW) was knowledgeable late in the process about the results of a simultaneous quantitative analysis of closure using audiotapes from the larger database. Potential bias was minimal because these results were not communicated to the other listeners; the definition of closure had been completed before results of the quantitative study were available; and JW reserved her opinions from the discussion at points of possible contamination.

2.3. Definition of closure

The listeners, as a group, first reviewed and discussed five tapes in their entirety. After lengthy discussion, they reached complete consensus for each tape regarding the behaviors which indicated the transition to closure. Then three more tapes were reviewed as a group until only minimal disagreements arose and each member felt comfortable that everyone was identifying the same section of the tapes as closure. The criteria developed in the discussion for identifying these closures were noted and used in formulating the definition of closure.

Then all of the tapes were divided among three listeners for individual review between meetings. The fourth listener (JW) reviewed each tape. In this manner, each tape was reviewed by at least two listeners. The group met every one to two weeks to discuss the progress of their analysis. The findings for each tape were discussed by the entire group at these meetings. Each listener kept a bound hand-written notebook which included notes of the tape contents, observations, and analyses. The group maintained written and audiotaped records of discussions about the results of their individual tape reviews. The observer met with the group periodically to check on progress, comment on clinical relevance of the analysis and note how the group's interactions might be shaping the analysis.

When all the tapes had been analyzed, the group reached agreement on the timing of the onset of closure for each audiotape. Initial disagreements in timing related to situations when closures began, were interrupted, then recommenced. Careful review and discussion of the tapes resulted in resolution of these disagreements. Finally, group members derived a definition of closure based on the results of their discussions of the timing, nature, and tasks of closure. The nature of interrupted closures was included in this definition.

2.4. Communication analysis

After agreeing on the definition and timing of closure, the listeners re-reviewed each tape individually and as a group, and exhaustively catalogued each type of verbal interchange which took place from the point of transition to closure to the absence of any sound on the tape. The group gathered both doctors' and patients' communication behaviors into larger thematic categories with clinical relevance. Considerable discussion and attention was given to the need to avoid making overly minute distinctions in communication behaviors and as well to avoid lumping communication behaviors into categories so general as to not be useful. The group strongly considered adding additional tapes to the data-
base. This was not done because by the last several tapes analyzed, no new behaviors were added to the list.

3. Findings

3.1. Definition of closure

According to the consensus of the listening group, closure is the phase of the medical encounter after the education and information exchange in which the doctor and patient finalize plans and say good-bye. Notably, closure contains a shift in the medical interview from a present to a future orientation. Examples of doctors’ statements that marked the beginning of closures were: “Okay, well let’s do some blood tests.” “So, we’ll take a look at the urine study and go from there.” “See you in three to four months.” “Listen, I’ll get this written report ordered. I’ll call you and we’ll go from there.” “I better skedaddle. I’ve got folks waiting.” Examples of patients’ statements were: “So what about that balloon treatment thing?” “Okay, well where do I go to get my first draw?” Every medical visit in this study contained a closure phase. Among the tapes studied, doctors initiated closure in all but two cases. Doctors directed the flow of closure, or attempted to, in every case.

3.2. Organization of closure

The closure of the medical visit followed one of two organizational forms. In one type of closure, the physician addressed all health concerns of a patient during the body of the visit, then fully summarized all issues in the closure. In this framework, there were no internal summaries of individual issues, and closure of the visit was a summation of the full encounter. As an example, the physician would address blood pressure and diabetes in the course of the visit and then finalize plans about both health problems in the closure before saying goodbye.

In another type of closure, the physician explicitly summarized a given topic discussed with the patient before moving on to discuss the patient’s next health concern. With this form of closure, the visit had multiple internal summaries before the final closure phase was initiated. For example, a physician would first discuss the patient’s hypertension and finalize plans about blood pressure treatment and follow-up before going on to review the patient’s diabetes. After both health issues were reviewed, a final closure was a recapitulation that only briefly summarized the issues in the encounter, if at all, then discussed plans for follow-up before saying goodbye. We hypothesize that doctors choose one of these two different styles because it is best suited to the way they think and organize their work or their progress notes. We have no information on which, if either, of these styles is seemingly more suited to patient satisfaction, compliance, health outcome, or doctor effectively.

The following passage is an example of a full summary closure initiated by a patient. A discussion of several psychosocial issues has just transpired and the patient begins closure with a shift in voice tone and a shift in topic to the upcoming blood tests.

Patient: Okay, well where do I go to get my first draw?
Doctor: Good, okay... we’ll get D---- to draw a glycohemoglobin and I’ll get that back approximately – not till Tuesday or Wednesday and I’ll see it when you come in on Wednesday. Actually, why don’t you just plan to give us a call on Wednesday if you’re home.
Patient: I’m done with the stuff down at my office.
Doctor: Okay, and maybe I could just have, D---- call you back with the result or something like that.
Patient: Okay.
Doctor: Depends on how my Wednesday morning goes since it’s my first day, you know, in the office...
Patient: Yeah.
Doctor: Whether I’ll have gotten to it...
Patient: Oh, that’s fine.
Doctor: You know to call. But, if I’ve had — I’ll leave you a message.
Patient: Okay.
Doctor: and... um... and think about just little mentions of regular insulin at the bad snack time of the day... and...um... work towards lower fat alternatives.
(Continues 51 seconds discussing food in our culture)
Patient: Yeah... okay...
Doctor: Let’s try these things.
Patient: Okay...
Doctor: And then, why don’t we do a phone call in a month or so, just sort of tell me what you’re doing and how it’s going.
Patient: Okay.
Doctor: Okay.
Patient: Thanks for listening.
Doctor: Happy to help.
(Total time = 2 min)

This closure is initiated by the patient. It is distinguished by a change in voice tone, pitch, and volume by the patient and doctor and marked by a shift in focus from general counseling statements to future plans. There are several communication tasks accomplished in this short time. The doctor and patient discuss a method for contacting one another before the next visit about a test result and again in a month by phone. The doctor summarizes instructions given earlier about insulin and diet. The doctor uses the pronoun ‘we’ and says ‘Let’s try these things.’ These terms can help foster alliance between doctor and patient. There are no interruptions in this closure and no new problems raised.

This next passage is an example of serial or ‘mini’ closures of each problem. The doctor and patient have agreed upon two topics to cover in the visit, test results and a leg problem. A discussion of lipid tests and diet changes has just occurred followed by some social talk.

Doctor: Those are the main things that would be the first step. Otherwise I wouldn’t do anything except that recheck it again in six months.
Patient: Mmmmm.

Doctor: And then just kind of go from there.
Patient: Just come in for a blood test?
Doctor: Yeah.
Patient: Alright, sounds fine.
Doctor: If that’s okay.
Patient: Mmmmm.
Doctor: And otherwise, I was wondering, has your husband had it checked?
Patient: He’s really good in that department. He doesn’t have any problems at all.
Doctor: Unhuh. Okay. Great. Um, and then, let’s talk about that leg trouble.
Patient: Well...
(Discussion of leg and back trouble and patient’s yoga.)
Doctor: As I say, we don’t need to attack it at this time, but keep me in mind if it changes. The yoga aspects, thought, are, I think, the best way to stay healthy.
(Doctor asks patient for yoga books to recommend to other patients. Discussion of her teacher.)
Thanks for coming in. Good talking with you.

In this passage there are two brief closures, one for each problem, and then a very brief closing statement. All were initiated by the doctor. The first mini closure emphasized the main parts of the plan, planned for the interim blood test and then transitioned to the next problem. The second one restated the plan not to do anything now, recommended follow-up for any changes, and encouraged continuation of yoga. The closing statement is quite brief but important as an expression of gratitude and a statement of rapport. With this method of serial closures, the doctor doesn’t have to keep in mind all of the previous issues until the end of the visit. Each topic is put to rest in turn.

3.3. Interrupted closures

An interrupted closure occurred when an attempt by one person to shift from present problems to a future orientation was not followed by a corresponding shift on the part of the other. Both doctors and patients interrupted closure. One example of a closure interrupted by
a patient was: Doctor — "If this is worse or if the medication is difficult to swallow, let me know. See you in three to four months." Patient — "You still aren't going to tell me about my nose problem?" Another example of an interruption was: Doctor — "So we'll take a look at the urine study and go from there. Keep in touch with me about pain." Patient — "You didn't take my blood pressure." An example of an interruption by a doctor was: Doctor — "Yes, you can have a pneumonia shot. What was this thing here for?" (referring to ear flush equipment). Patient — "My ears. I can hardly hear out of the crazy things anymore."

One visit had two interruptions during closure. Even though early in the visit the doctor had asked for a list of all the patient's concerns, the patient interrupted closure twice with new problems, first a blood pressure check, then a shoulder concern apparently from a previous visit.

Doctor: And so we'll go ahead and take a look at that urine study and then try to kind of go from there. I kind of hope you'll keep in touch with me about this pain.
Patient: If it gets worse, I will... Oh, you didn't take my blood pressure, what is that?
Doctor: Yeah, let's do it.
Patient: And like I say, I've got one prescription that's... I can't get refilled after what I just did and I can't remember if it's hormones or what? If it's not the hormones, then I'll give you a call.
Doctor: Yeah, I can call it in.
Patient: Yeah...
Doctor: Be one way to do it...(measuring BP)... okay, just kind of bend your elbow left there... good.... and kind of relax your shoulder.... (long pause).... it's a little bit up right now...152 over 98.
(Continues 3 minutes and 30 seconds regarding blood pressure, diet, alcohol, and medicine)
Doctor: Okay.
Patient: That's a lot right there.
Doctor: That makes sense. And then... why don't we plan on seeing you in a month or so and kind of go from there?
Patient: If it gets any worse I'll let you know...
Doctor: Any other questions you have?
Patient: Not really. You know, there's nothing you can do for my shoulder or anything.
Doctor: The exercise would be a good try anyway. Something at home, something like besides... well, to start off with light weights... something like this...
Patient: You know how that... that hurts. I can't even do the shoulder rotations when I'm doing them... I can only do it with this arm.
Doctor: Yeah.
Patient: But once I get into working and it's been about an hour, and I've already done some lifting, then it's... it starts getting better. But then when I go home, it just...
Doctor: Yeah...
Patient: You know, works it out.
Doctor: Well, it'll be something to consider anyway... we'll kind of go from there.
Patient: Okay.
Doctor: Great.
(Total time 5 minutes and 50 seconds)

This rather long passage began as the doctor attempted to close the visit with a shift to the future. The patient did not follow. She raised two issues which had not been discussed earlier: blood pressure and the shoulder. The doctor led a discussion about blood pressure management. Then he restarted the closure process when he suggested plans for the next visit. When he checked for more questions after that, the patient raised the new shoulder issue. A discussion of exercises ensued. Final closure was quite brief.

Only the doctor was ready to close the visit. The patient was not. As a result, closure was a long process and the true work of closure has occurred earlier in the visit and was not repeated at the end. Of note, early in this visit the doctor began in an open-ended fashion and surveyed for the patient's concerns. However, he may have fostered a late new problem by asking 'Any other questions you have?' in closure. Checking for other questions or concerns could have occurred before the beginning of closure instead of at its end and might have elicited the shoulder
problem and helped the patient to be ready to close. Although this might not have shortened the visit, it might have made closure more effective. Having the important information about medicine, interim contact, and appointments at the end of the visit might have made them easier to remember.

Eight of the visits in this study had interrupted closures (Table 1). Five of these interruptions were due to discussion of one or more new problems, those not previously mentioned in the visit. The new problems were raised by patients, by physicians, or by both. One of these closures was interrupted four times before it was completed by a patient with a series of new problems. In four of these five cases the new problem pertained to a biomedical problem and in the other it was a psychosocial concern. In other interruptions, a physician and a patient each reopened a previous topic in closure, and a patient interrupted closure repeatedly trying to obtain a narcotic prescription. She was eventually successful.

In the case of interruptions, the flow of the visit generally returned to the examination or educational phase and closure was reintiated afterward. In none of these visits did the physician suggest addressing the new problem at a subsequent visit.

We hypothesized that communication at the beginning of the visit might determine whether patients brought up new problems in closure. We examined the early phases of five visits in which patients initiated new problems in closure. In three of these the physician had asked if the patient had anything else to discuss or any other concerns. Physicians questioned patients about additional concerns between one and three times per visit. In the other two visits, physicians used open ended questions at the beginning of the visit, but did not specifically ask for a list of patient problems. We did not investigate those visits without new problems in closure.

3.4. Effective closures

Three visits all by the same physician appeared very effective. Each visit was conducted with the same structured format. The most striking feature of these visits was that the physician explicitly told the patient what was going to happen next. For example this physician said, “Let me examine you...; I’ll wash my hands and we’ll talk about what the problem is and what to do...;

<table>
<thead>
<tr>
<th>Tape</th>
<th>Interrupter</th>
<th>Interruptions</th>
<th>New problem</th>
<th>Early survey</th>
<th>Open-ended questions</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Patient</td>
<td>Blood pressure check</td>
<td>X</td>
<td>X</td>
<td>+</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Requests help for shoulder</td>
<td>X</td>
<td>+</td>
<td>+</td>
</tr>
<tr>
<td>2</td>
<td>Patient</td>
<td>Asks for information about:</td>
<td>X</td>
<td>Late</td>
<td>+</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Hand</td>
<td>X</td>
<td>Late</td>
<td>+</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Neck</td>
<td>X</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>X-ray</td>
<td>X</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Arthritis</td>
<td>X</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Patient</td>
<td>Psychosocial issue about relationship and mother-in-law</td>
<td>X</td>
<td>+</td>
<td>+</td>
</tr>
<tr>
<td>4</td>
<td>Doctor</td>
<td>Asks about patient’s sleeping pattern</td>
<td>X</td>
<td>-</td>
<td>+</td>
</tr>
<tr>
<td>5</td>
<td>Patient</td>
<td>Requests pneumonia shot</td>
<td>X</td>
<td>-</td>
<td>+</td>
</tr>
<tr>
<td></td>
<td>Doctor</td>
<td>Sees ear flush equipment and discovers chief complaint</td>
<td>X</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>Patient</td>
<td>Reminded doctor to address a nose-related concern</td>
<td>+</td>
<td>+</td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>Patient</td>
<td>Asks about pain from diarrhea</td>
<td>-</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>Doctor</td>
<td>Redresses cholesterol education and performs heart exam</td>
<td>Late</td>
<td>-</td>
<td></td>
</tr>
</tbody>
</table>
Well, from talking and examining you I see two things. First..." This physician consistently provided patients with an explicit outline of the visit. The listening group uniformly described this physician's visits as smooth and effective. The flow of the visit was never interrupted. The outline did not seem to inhibit patients, rather they participated fully and never appeared hurried or frustrated.

In other closures doctors' behaviors fell into themes that the listening group came to identify as closure skills. Doctors used them in varying combinations and orders. These closure skills included summarizing the visit, reviewing the medication or treatment plan, setting a time for the next office visit, discussing interim contact if needed, demonstrating caring, and offering reassurance. The group found checking for any remaining concerns just before closure and as above, explicitly outlining the visit early on to be skills related to closure. Clinicians may find these skills useful as they shape closure with patients.

### 3.5. General closure communication

Within the framework of closure physicians and patients have communication behaviors and tasks distinct from the work of the educational phase. Physicians' communication fell into five clinically relevant categories: emotion, education, clarification and summary, parting comments, and miscellaneous. A comprehensive list of the range of communication behaviors exhibited by doctors during closure of the visit is presented in Table 2. We grouped patients' behaviors into the categories of emotion, information, parting comments, and miscellaneous (Table 3). Researchers may find these lists useful. Several findings warrant discussion for clinicians. Educational discussion was most pronounced in closures which were clearly interrupted to complete new or earlier work. Closures with significant amounts of new educational discussion seemed awkward and inefficient. Closures seemed most effective if they were streamlined and devoid of new medical information. Communication involving clarification, summary, and parting comments was the most typical of closure. Clarification and summary involved a future orientation and was directed by doctors, although in many tapes patients actively participated in the negotiation of plans. Communication related to parting comments most closely resembled social amenities and 'chatting.' We hypothesize that parting comments appear as a signal that 'business' is completed and that doctor and patient may relate on a more personal level. This time may strengthen the doctor-patient relationship and serve to enhance compliance and improve health outcome.

### Table 2

<table>
<thead>
<tr>
<th>List of communications by doctors during closure</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Emotion</strong></td>
</tr>
<tr>
<td>Expresses emotion</td>
</tr>
<tr>
<td>- Positive</td>
</tr>
<tr>
<td>- Humor</td>
</tr>
<tr>
<td>- Hope</td>
</tr>
<tr>
<td>- Laughs</td>
</tr>
<tr>
<td>- Negative</td>
</tr>
<tr>
<td><strong>Defensive remark</strong></td>
</tr>
<tr>
<td><strong>Demonstrates caring</strong></td>
</tr>
<tr>
<td>- Asks about concerns</td>
</tr>
<tr>
<td>- Asks patient's opinion</td>
</tr>
<tr>
<td>- Praises patient</td>
</tr>
<tr>
<td>- Empathizes</td>
</tr>
<tr>
<td>- Reassures patient</td>
</tr>
<tr>
<td><strong>Emotion</strong></td>
</tr>
<tr>
<td><strong>Clarification and summary</strong></td>
</tr>
<tr>
<td>Summarizes information given</td>
</tr>
<tr>
<td>Plans for testing</td>
</tr>
<tr>
<td>Negotiates frequency of visit/next visit</td>
</tr>
<tr>
<td>Determines appointment time</td>
</tr>
<tr>
<td>Discusses coordination of care with other doctors</td>
</tr>
<tr>
<td>Plans for interim contact</td>
</tr>
<tr>
<td><strong>Parting comments</strong></td>
</tr>
<tr>
<td>Refers to the time</td>
</tr>
<tr>
<td>Answers questions about self and family</td>
</tr>
<tr>
<td>Asks if patient has 'anything else'</td>
</tr>
<tr>
<td>Says goodbye</td>
</tr>
<tr>
<td>Thanks patient</td>
</tr>
<tr>
<td><strong>Miscellaneous</strong></td>
</tr>
<tr>
<td>Transitional verbalization</td>
</tr>
<tr>
<td>Asks about symptoms (of new problem)</td>
</tr>
<tr>
<td>Doctor raises new problem</td>
</tr>
<tr>
<td>Writes in chart</td>
</tr>
</tbody>
</table>
4. Discussion

This study demonstrates that closure is an identifiable, distinct communication phase of the medical visit. Closure occurs at the end of the visit, after the educational phase. It is integrally related to what has come before, but has its own organizational framework, orientation toward the future, and distinct communication tasks.

Interrupted closures may be less effective than others or may signal missed opportunities for the physician and patient. If the doctor or patient has unfinished business, or if they failed to reach common ground on an issue [25], closure may be interrupted. When closure is interrupted, the flow of the visit moves backward to the educational phase or earlier. We postulate that concerns addressed this late in the visit may increase frustration for the doctor, affect the quality of care delivered if the physician feels rushed or frustrated and therefore diminish patient satisfaction with care.

In the example passage of the interrupted closure the patient did have a need to address the blood pressure and shoulder pain but deserved the full attention of the physician and a thorough evaluation and discussion of the problems. A frustrated or rushed feeling physician might be less likely to give full attention to problems raised in closure. Physicians should make every effort to help patients raise concerns early in the visit, or, if rushed, might propose deferring a concern until a future visit.

Patients persist with problems until they feel heard or understood [25] and this can interrupt closure. However, as we have seen, the medical visit is complicated. Doctors and patients can forget things until the end, remind one another, or emphasize points late in the visit. Many factors, not all preventable, can influence closure, especially innate characteristics of each individual [26]. The question is how do we do the best we can.

We observed three things about interrupted closures which may improve physician efficacy. First, we observed that only when both patient and doctor are ready to close the visit will they do so successfully. This is consistent with other work which suggests that asking patients about additional concerns early in the visit, allowing the patient to talk without interrupting, addressing psychosocial and emotional issues, and exploring patient beliefs may uncover hidden agendas before closure starts and decrease the number of new problems raised by patients late in the visit [18,27,28]. We believe that physicians can learn to prepare themselves and the patient for a smooth closure, leading to a mutually satisfying and effective visit.

Second, we observed that in many tapes in this study the doctor’s question, ‘Is there anything else?’ was placed so late in closure that the listeners believed that the question was merely perfunctory, and that doctors did not expect a positive reply. When there were more concerns, doctors would have to rush through them because they were not expected; closure was interrupted and had to be restarted later. To be most useful, we suggest that physicians avoid the habit of asking ‘Anything else?’ so late in the visit. Physicians should ask patients about any final concerns earlier so they can be meaningfully addressed. This could then lead to a smooth ending to the visit.

<table>
<thead>
<tr>
<th>Table 3</th>
<th>List of communications by patient during closure</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Emotion</strong></td>
<td></td>
</tr>
<tr>
<td>Humor</td>
<td></td>
</tr>
<tr>
<td>Jokes</td>
<td>Uses humor to express anger</td>
</tr>
<tr>
<td><strong>Information</strong></td>
<td></td>
</tr>
<tr>
<td>Shares concern about treatment</td>
<td></td>
</tr>
<tr>
<td>Comments on effectiveness of treatment</td>
<td></td>
</tr>
<tr>
<td>Requests test results</td>
<td></td>
</tr>
<tr>
<td>Describes state of health</td>
<td></td>
</tr>
<tr>
<td><strong>Parting comments</strong></td>
<td></td>
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<tr>
<td>Asks about doctor or family</td>
<td></td>
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<tr>
<td>Compliments doctor</td>
<td></td>
</tr>
<tr>
<td>Expresses gratitude</td>
<td></td>
</tr>
<tr>
<td><strong>Miscellaneous</strong></td>
<td></td>
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<tr>
<td>Transitional verbalization</td>
<td></td>
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<tr>
<td>Shares financial concerns</td>
<td></td>
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<tr>
<td>Remains silent throughout</td>
<td></td>
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<tr>
<td>Agrees with doctor</td>
<td></td>
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<tr>
<td>Raises new problem</td>
<td></td>
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<tr>
<td>Reminds doctor of previous problem</td>
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</table>
Finally, one study has also suggested that orienting patients during the visit decreases new problems in closure [18]. This is consistent with our independent observations of the physician who explicitly told patients what was going to happen next. We suggest that providing patients with an actual outline of the visit allows them to help keep the visit on track. In this way the patient who understands the optimal time for stating concerns and who knows that closure is imminent may be able to help the physician address all problems fully and effectively.

In addition to interruptions, we also focused on how doctors organized the tasks in closure. The organizational structure of closure was distinct from that of any other phase of the visit. The doctors in these tapes tended to use one of two different organizational styles. One style used 'mini' closures immediately after each topic in the educational phase and global, less detailed closures at the end of the visit. The other style summarized all topics and plans together at the end of the visit. Effective closures were observed for each closure style. We suggest that, as in other phases of the medical visit [29], an organizational framework tailored to the patient's needs and abilities and or shared with the patient would be the most effective approach.

This preliminary study looked at a small number of doctor and patient interactions in order to study the process of closure in detail. There are several limitations to the study. The primary care physicians in community-based private practice may not represent the wide spectrum of practicing physicians. We chose primary care physicians, however, to reflect what actually happens with physicians in a well established practice pattern. Although the number of interactions was small, the behaviors and patterns which emerged in these tapes were found repeatedly by the listeners. Further, the findings appeared to represent the universe of experience within the group of physicians studied. The long visits in this study may not be typical of visits in highly managed care settings. They do, however, provide insight into questions of efficiency and time use.

Audiotape analysis is limited by its inability to record nonverbal information that might be important in the closure of visits [30]. Physicians may first indicate that closure is beginning by nonverbal cues such as closing the chart or capping a pen. Further studies including videotapes of medical visits would be useful in analyzing the nonverbal component of this interaction.

Finally, there were no transcripts of the visits available to listeners. This precluded tabulation of frequencies of events or communication behaviors. Nonetheless, communication patterns identified in this study may be used in future qualitative and quantitative studies to assess frequencies and relationships between events.

5. Conclusion

For a doctor who sees 25–30 patients a day in a managed care setting, an interruption in closure in one out of three visits can be quite frustrating. We need to know more about these interruptions, the insights they provide about physicians and patients, and their impact on the care provided.

The ability to define closure and to delineate its features provides us with the opportunity to examine it more closely. Several unanswered questions remain: 'How does closure relate to what has come before it?' 'What are the most effective techniques for insuring that both the physician and the patient are ready to close?' 'What is the ideal organization of closure?' 'What specific communication skills are most effective in preventing interruptions of closure?' and finally, 'What skills are most likely to improve patient health outcomes?' This qualitative analysis of closure has provided us with a foundation for further study of communication in this phase of the visit.

6. Practice implications

1. Communication skills for closure include
   summarizing the visit, reviewing the plan, setting
   up the next visit, discussing interim contact,
demonstrating caring, and offering reassurance.

2. Interrupted closures may be less effective or may signal missed opportunities for the physician and patient.

3. Physicians should make every effort to help patients raise new problems early in the visit.

4. Physicians can guide the patient through the visit by using orientation statements to outline the visit.

5. Physicians should ask ‘anything else?’ before closure so that concerns can be meaningfully addressed.

References


