In support of the Veterans Health Administration commitment to the promotion of shared decision-making between providers and patients, this study investigated the relationship between the provision of a patient appointment guidebook, designed to promote and support patient participation in the health care visit, and patient perceptions of primary care visit effectiveness. This study compared perceptions among 277 randomly selected patients randomly assigned to one of two groups. Patients assigned to an intervention group received a patient appointment guidebook along with the standard appointment reminder letter prior to the scheduled routine visit. Patients assigned to a control group received only the standard appointment reminder letter. Patient perceptions were assessed with a follow-up questionnaire designed to measure patient agreement with six statements pertaining to primary care visit effectiveness. No significant differences were noted in the proportion of patients in the two groups that agreed with any of the six statements pertaining to primary care visit effectiveness. Significant differences were noted, however, in the proportion of patients in the groups who received preventive health care interventions of influenza vaccination, pneumococcal vaccination, and gender-specific cancer screening. Approximately 37% of the patients in the intervention group provided positive comments about the patient appointment guidebook, while only 7% provided negative comments. Although statistically inconclusive, the narrative comments indicate that a patient appointment guidebook may assist veterans in preparing for primary care appointments. The lack of significant difference between the two groups on the measures of primary care visit effectiveness may be due, in part, to positive perceptions among the sample in general, as reflected by high levels of agreement and predominantly positive comments for both control and intervention groups.

The Veterans Health Administration (VHA) has made an organizational commitment to the promotion of shared decision-making between VHA providers and patients. The VHA defines shared decision-making as a process of communication between a clinician and a patient regarding the patient’s health. Shared decision-making is embedded in the patient-provider relationship, and is expressed through the multitude of decisions made over time in managing a patient’s health. The ideal outcome of the shared decision-making process is a plan that is mutually agreeable to the patient and provider.

The results of a Picker Institute Survey conducted by the American Hospital Association indicate that approximately one third (30%-35%) of all hospital patients surveyed experience problems talking to providers about concerns and obtaining answers to important questions. Patients in clinic settings (28%) also report that they do not get as much information as they want. In an attempt to improve the communication between patients and providers, the Southern Arizona Veterans Affairs Health Care System (SAVAHCS) recently piloted a patient appointment guidebook designed to promote and support patient participation in the health care visit. Data were collected to determine the relationship between provision of the educational guidebook and selected patient and system outcomes.

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**Research Hypotheses**

The purpose of the study was to investigate the relationship between providing patients with an educational guidebook designed to promote and support participation in the health care visit and selected patient and system outcome measures. The primary hypothesis of this study was that patients receiving a patient appointment guidebook would experience primary care visit effectiveness differently than patients not receiving a guidebook. The primary hypothesis was tested by comparing the proportion of patients in each group who agreed with six statements about primary care visit effectiveness. Patients were also invited to provide written narrative comments about the primary care appointment (both groups), the patient appointment guidebook (intervention group only), or comments in general (both groups).

A secondary hypothesis of this study was that the proportion of patients receiving health promotion and disease prevention interventions would be different between the intervention and control groups. Retrospective chart audits were conducted to determine whether six preventive health care indicators had been addressed. Information about four of the six indicators selected for review in this study were included in the patient appointment guidebook.

One additional objective of this study was to obtain patient feedback to evaluate the usefulness of the patient appointment guidebook. Patients in the intervention group received an additional questionnaire with six questions regarding their use of the guidebook for their primary care appointment. Patients were asked to answer “yes” or “no” to these six questions, and were provided space for additional comments.

**Background/Preliminary Studies**

**Patient-provider Partnership**

The ideal outcome of a shared decision-making process is a plan that is mutually agreeable to the patient and provider. Benefits of a shared decision-making approach to health care delivery include improved outcomes, such as emotional health, symptom resolution, functional status, physiologic measures, and pain control. Other benefits include greater adherence to treatment regimens, reduced exposure of providers to malpractice litigation, higher levels of provider and patient satisfaction, and more effective use of health care resources.

Studies on patient preferences with respect to shared decision-making present conflicting information regarding the extent to which patients desire to be involved in their own health care. Some authors have found little interest in decision-making among patients while others claim the opposite. Conceptualization of patient participation in health care decisions is commonly that of a single continuum from the absence of patient participation, through shared participation, to complete patient control or autonomy. Where participation incorporates the idea of sharing on an equal basis, specifics of what this means in terms of input by provider and patient remains unclear. Empirical research suggests that the link between patient preferences for participation in treatment decision-making and actual participation is not strong. Patients who express preferences for some form of shared decision-making do not necessarily act on these preferences in the medical encounter.

Shared decision-making, defined as a process of communication between a clinician and a patient regarding the patient’s health, requires exchange of information as a critical element. Information, or the lack thereof, forms the basis of patient decisions. Patients express a strong desire for information. Patients, regardless of age, health status, or education, wanted more information than they received, leading some authors to conclude that patients want to make decisions. While patients wanted their physicians to be the principal decision-makers, they still desired very much to be informed. Strull et al. asked physicians to predict patient preferences on information and decision-making. They found that the physicians’ perspectives were very different from the patients’ perspectives; clinicians underestimated patients’ desires for information but overestimated patients’ desires to make decisions. Additional studies support that preferences for control over medical decisions is separate from the desire to be informed, as many patients with low need for control over decisions have a high need for information.

**Influence of Patient Characteristics on Patient-provider Partnership**

Attempts to predict interest in shared decision-making have produced widely discrepant results, from both provider and patient perspectives. Studies indicate that interest in shared decision-making varies among patients and may change with the seriousness of the health problem or the age of the patient. In addition, patient characteristics may influence patient communication behaviors as well as the
amount and type of information communicated to patients by providers.\textsuperscript{39}

Greenfield et al\textsuperscript{6} found that physicians were less responsive to psychosocial issues raised by older patients. This finding is consistent with VHA customer feedback measures indicating persistent problems related to emotional support (SAVAHCS, Customer Satisfaction Results, 1999). While older patients appear to receive more information overall, the age of the patient also influences the manner in which the information is discussed between provider and patient.\textsuperscript{39}

Patient gender is related to differences in communication processes between patients and providers. Female patients are given more information in simpler language than that provided to male patients.\textsuperscript{40} Females appear to ask more questions during patient care encounters,\textsuperscript{13} but also are more actively included in discussions by physicians.\textsuperscript{2}

The ethnicity and cultural background of the patient influence the style, content, and intent of communication between patients and providers.\textsuperscript{39} Classic studies demonstrated differences in how patients of different ethnic groups present chief complaints.\textsuperscript{41, 42} These studies also illustrated that patients of different ethnic groups have different concerns regarding their chief complaints. Physician response to patient complaints did not always address specific patient concerns, a problem confounded by differences in patient communication related to age and gender.\textsuperscript{43} Physician communication skills related to questioning, listening, and demonstrating empathy is influenced by the ethnicity of the patient.\textsuperscript{44}

A final patient characteristic of concern among the veteran population is chronic disease status. Studies have demonstrated that communication processes between patients and providers is influenced by the health status of the patient.\textsuperscript{39} In addition, Hall et al\textsuperscript{13} demonstrated differences in treatment patterns related to physician rating of liking for patients. Of concern in this study was the finding that physicians liked healthier patients with fewer chronic disease manifestations better than less healthy patients.

**Barriers to Patient-provider Partnerships**

Implementation of appropriate interventions to improve relationships between patients and providers requires identification and reduction of barriers. Three barriers to developing improved patient-provider relationships identified in the literature are (1) lack of respect for patient preferences, (2) insensitive organizational structures, and (3) ineffective communication.

Lack of respect for patients’ values, preferences, and expressed needs by health care providers significantly impedes patient-provider relationship development.\textsuperscript{14, 26, 28} Patients bring to the relationship self-knowledge regarding personal values and lifestyle preferences\textsuperscript{14} and providers bring expertise about the technical aspects of diagnosis and health management. Whitbeck\textsuperscript{45} noted that shared decision-making requires ongoing negotiation of decision-making authority between patient and provider. The implication of shared decision-making is that it is no longer necessary for one side to “own” the decision. A shift of emphasis must occur from a debate about who has the right to make decisions toward an emphasis on clear and effective communication that is appropriate to the culture of the patient.\textsuperscript{46} Patients participating in focus group discussions about shared decision-making at the SAVAHCS repeatedly identified “listening to the patient” and to “what the patient knows about (their) own body” as “really important” aspects of the interaction with providers (unpublished results). Conversely, participants in these focus group discussions also reported “comfort with” providers making health care decisions under certain circumstances (unpublished results).

A more intractable barrier to patient-provider partnership arises from the structure of medical practice. Shared decision-making requires an environment in which patients feel independent and able to make decisions, where their goals and values are ascertained, and they are educated about the risks and benefits of treatment options.\textsuperscript{14} Educational strategies directed only at improving provider communication skills may not sufficiently address barriers to shared decision-making inherent in a managed care environment characterized by episodic and shortened direct contact between patients and providers.

Patients often are reluctant to ask questions for fear of being perceived as ignorant or of wasting the doctor’s time. This is true even if they have consumer-oriented attitudes and a formulated list of questions.\textsuperscript{35, 39, 47, 48} Clinical interventions, however, can help patients become more active during visits with health care providers. Interventions have included giving patients written instructions on assuming a more active role,\textsuperscript{49} helping patients develop a question list prior to their visit,\textsuperscript{39} showing patients video presentations that encourage them to ask questions during the consultation session,\textsuperscript{50} and coaching patients on asking questions of and negotiating decisions with their physician.\textsuperscript{13}

SAVAHCS pilot study focus group results (unpublished results, 1999) confirmed that characteristics of the health care delivery system negatively influence patient comfort with, and perceptions of,
patient-provider relationships. Problems include issues related to timeliness, coordination, and continuity of health care services. When asked to identify elements in health care situations that support shared decision-making, the response of patients included “services would be timely” and “you got to have the same person all the time so they know... so you don’t have to start all over again each time.”

Research has identified that ineffective communication is a problem for both patients and providers. Patients may want additional information or want to participate in shared decision-making but lack the skills to initiate the conversation or to ask the correct question. Providers often lack effective communication skills, the knowledge required to determine patient-specific communication issues, and the ability to recognize their own tendencies toward biased communication patterns.

Ineffective communication by clinicians can have significant impact on patient satisfaction, adherence to treatment regimens, health care outcomes, health care utilization, and costs. The focus and intent of provider communication has been shown to be more highly related to malpractice litigation rates than actual quality-of-care issues.

**RELATIONSHIPS BETWEEN PATIENT-PROVIDER PARTNERSHIP AND OUTCOMES**

**Patient Satisfaction**

In a meta-analysis of 41 studies, Hall et al found that patient satisfaction was significantly associated with information-giving by physicians, technical and interpersonal competence of physicians, partnership building, positive verbal and nonverbal behaviors by physicians, social conversation, and more communication overall. Customer feedback data collected at the SAVAHCS indicate that more than 30% of respondents are less than completely satisfied with the degree to which they are involved in decisions regarding their health care (unpublished findings, 1999). These data are similar to the American Hospital Association’s Picker Survey findings. Despite the fact that patients report problems in obtaining sufficient information and in having questions answered, clinicians routinely underestimate the importance of information to patients and overestimate the amount of time they spend giving information.

Patient satisfaction is by far the most recognized and widely used measure for gauging the effectiveness of patient-provider partnership. The logical and intuitive appeal of this measure as an appropriate indicator of effective patient-provider partnership, in addition to the relative ease with which it can be administered, makes it an attractive candidate for an outcome measure for assessing the quality of patient-provider partnership. A limitation of satisfaction measures is that satisfaction may be in part an attribute of the patient rather than an objective reflection of provider behavior. For these reasons and because patient satisfaction has shown a relatively consistent positive relationship to certain elements of patient-provider communication, satisfaction should be included among indicators of effective patient-provider partnership; however, it should not be the only indicator. It should be used to supply information that is complementary to health status in assessing the quality of patient-provider partnership.

**Health Outcomes and Treatment Adherence**

Investigators have concluded that encouraging patients to take a more active role in their care may indeed pay off in improved outcomes. Patients who are actively involved in care may have a better functional capacity and perceive themselves as healthier than those not actively involved. They may also have more effective relationships with their physicians.

One explanation for improved outcomes among patients involved in their health care is that such patients have an increased sense of control, which, in turn, may “generate behaviors and attitudes that are health-maintaining.” Patients who have participated appear to be more likely to comply with treatment. Patients with cancer who wanted to be involved in treatment decisions were found to be significantly more hopeful than those who did not. Patients with peptic ulcers and diabetes mellitus experienced better physical functioning if they were involved in medical decision-making.

In an extensive review of the compliance literature, Marston concluded that the most consistent association with patient compliance is the patient-provider relationship. Becker et al similarly concluded that among those variables most predictive of compliance are features of the patient-provider relationship. Research demonstrates a strong and predictive association between aspects of the patient-provider interaction during a medical visit and subsequent patient satisfaction with care and compliance with regimens.

**PATIENT EDUCATION INTERVENTIONS AND PATIENT-PROVIDER PARTNERSHIPS**

Respondents in a customer feedback study at the SAVAHCS cited interpersonal factors and communication skills as barriers to active participation in primary care visits more frequently than system factors,
such as time allotted for the appointment (unpublished results, 1999). Provider-driven interactions with patients determine the quality of patient data used in the care planning process, and patient education designed to promote collaboration with providers in identifying problems has been identified as a critical element in effective patient education programs. Educational interventions have been demonstrated to positively impact behaviors, as well as important patient outcomes.

**Significance**

Shared decision-making is advocated as an ideal model of health care treatment decision-making. Despite a long history of advocacy for increased patient involvement in medical care and evidence that patients want more information about health care and health issues, few attempts have been made to change the traditionally passive patient role. In the current era, there are compelling reasons to measure the effectiveness of patient-provider partnership, especially in the management of chronic disease. The nature of chronic disease requires substantial patient responsibility for implementing treatment regimens settled on during the patient-provider visit. Tasks of effective patient-provider communication must include transfer of sufficient information to chronically ill patients to permit them to implement the treatment regimen correctly and, equally importantly, to persuade them to follow the regimen.

**Research Design**

**Sample**

A sample of 278 patients was randomly selected from patients scheduled for primary care team visits at the SAVAHCS Tucson facility. The average age of this predominantly male population (12% female) is approximately 60 years. The top primary diagnoses in this population are related to diabetes mellitus, alcohol dependency, hypertension, prolonged post-traumatic stress, cardiovascular problems, and chronic renal failure.

Once selected, the patients received a letter informing them of their selection and inviting them to...
participate in the evaluation of improvements in primary care. The data collection was completed following human subject guidelines and study approval. The patients selected were informed that their responses would be included with other veterans selected to participate in this research project. Their responses would remain confidential. By returning the completed questionnaire they were providing permission to use their responses in this evaluation project. Their participation in this research study is voluntary; not participating will not affect your medical care.

The patients were randomly assigned to one of two groups, with 141 patients designated to receive the intervention and 136 patients designated as the control group. The composition of both groups was 93% male and 7% female. Seventy-three patients in the control group returned completed questionnaires following the scheduled primary care appointment, while 43 patients in the intervention group returned completed surveys.

**Intervention**

Patients in the intervention group were mailed the appointment guidebook with instructions prior to a scheduled routine visit with their primary care provider. Patients in the control group were mailed the standard letter informing them of the upcoming appointment. After the visit, the patients in both groups were sent a short questionnaire with instructions and a postage-paid return envelope. Both groups of patients were informed in writing in both mailings that they had been invited to participate in a study designed to improve primary care services, that submission of the post-visit questionnaire constituted consent to participate, and that all responses would be confidential.

**Appointment Guidebook**

The patient appointment guidebook piloted in this study is 8 1/2 inches by 5 1/2 inches, and contains 10 internal pages. The guidebook cover is titled *How To Be Prepared*. In addition to an explanation about the guidebook itself, the guidebook includes the following sections:

1. Appointment list where patients can record information about upcoming appointments
2. Suggestions for getting ready for the appointment, including spaces to write down questions and concerns to discuss with the provider
3. Instructions for the day of the appointment, including a place to list medications
4. Sample phrases to assist in discussing issues with the provider
5. Suggestions for completing the visit, including important follow-up issues and health promotion and disease prevention subjects about which to ask for more information from the provider. The specific health promotion and disease prevention topics identified in the guidebook are influenza vaccination, pneumococcal vaccination, cholesterol screening, colorectal cancer screening, and cervical/breast cancer screening. Other suggested topics include exercise, hypertension, nutrition, tobacco use, and weight management.


**Measures**

The post-appointment visit evaluation questionnaire (Fig. 2) for both the intervention and control groups was constructed of six items assessing patient perceptions related to preparedness, self-effectiveness, and visit effectiveness. All questions were answered using a five-item response scale format designed to assess the level of agreement with each of the six statements. This questionnaire also included the invitation and space to provide comments about the appointment.

Patients in the intervention group received a questionnaire with six additional questions pertaining to the guidebook itself (Fig. 3). These questions were constructed to provide patient feedback on the usefulness of the appointment guidebook, and to validate that patients actually did receive the appointment guidebook prior to their primary care visit. The six questions designated a “yes” or “no” answer, as well as a prompt for comments with each question. The intervention group was also prompted to provide written comments about recommended changes to the guidebook, and/or other helpful mechanisms for preparing for appointments. The intervention group questionnaires also included an open-ended prompt for other comments in general.

Retrospective chart audits were conducted for all patients randomly selected and assigned into the two groups to determine the proportion of patients receiving influenza vaccination, pneumococcal vaccination, alcohol abuse screening, colorectal cancer screening, gender-specific cancer screening (prostate, cervical, and breast), and depression screening. These six interventions are included as indicators for the VHA Chronic Disease and Prevention Indicators (CDI/PI) performance measure (1999). The expectation is that these indicators will be addressed on all eligible primary care patients in the
VHA Health Care System. Conduct of retrospective chart audits on the patients randomly selected for this study is consistent with mechanisms in place to determine facility compliance with the CDI/PI performance measure.

**FINDINGS**

**Response Rate**

The response rate for the control group was 54%, providing 73 postappointment visit evaluation questionnaires. Data were obtained from 106 charts of the 136 patients randomly selected and assigned to the control group. The response rate for the intervention group was 31%, providing 43 postappointment visit evaluation and guidebook evaluation questionnaires. Data were obtained from records for all 141 patients randomly selected and assigned to the intervention group.

**Postappointment Visit Effectiveness Questionnaire**

The proportion of patients agreeing with statements on the postappointment visit effectiveness questionnaire was compared between the control and intervention groups using a 2-tailed test ($\alpha = 0.10$) of the null hypothesis that there were no differences between the two groups. Table 1 includes the data used to calculate z scores, the z scores for each question, and the level of significance for each z score. The null hypothesis could not be rejected, as there were no significant differences in the proportion of patients in the two groups indicating agree or strongly agree for any of the six questions.

Additional analysis was conducted to compare the proportion of patients in each group indicating strongly agree on each of the six questions. Table 2 provides the results of this analysis for a 2-tailed comparison ($\alpha = 0.10$). Again, the null hypothesis could not be rejected, as there were no significant differences in the proportion of patients indicating strongly agree on any of the six questions.
and/or the guidebook, as well as comments about health care service provision in general. In the control group, 82% of the comments were positive references to the provider, long-standing satisfaction with VA services, or overall quality of care received at the VA. Six of the patients in the control group (18%) expressed negative comments about the time providers had to spend with patients, access to timely appointments, or communication problems between different aspects of VA service provision.

Comments provided by patients in the intervention group largely addressed issues related to the appointment guidebook. Two patients expressed negative sentiments about the guidebook as a whole. One patient stated that the guidebook "was a waste of paper" and that "the money should be spent on providing services to patients." Another patient wrote, "What good is it? Just make a list of what you want your doctor to know and your meds, and hope your doctor will take the time to hear what you got to say."

Most of the comments provided by patients in the intervention group were either constructive suggestions on ways of improving the guidebook, or positive comments about the usefulness of the guidebook. Several patients suggested that the guidebook would be more usable if it were reduced to a size that could fit into a "shirt pocket" or "checkbook size." One patient wrote, "this is a good idea, but it is considerable baggage for the patient to carry; par-

**TABLE 1**

<table>
<thead>
<tr>
<th>Question</th>
<th>X₁</th>
<th>X₂</th>
<th>P₁</th>
<th>P₂</th>
<th>N₁</th>
<th>N₂</th>
<th>Z*</th>
<th>Significance</th>
</tr>
</thead>
<tbody>
<tr>
<td>I was prepared for my appointment with my provider.</td>
<td>64</td>
<td>37</td>
<td>.877</td>
<td>.860</td>
<td>73</td>
<td>43</td>
<td>+0.263</td>
<td>NS</td>
</tr>
<tr>
<td>My questions were answered to my satisfaction by my provider during this appointment.</td>
<td>63</td>
<td>36</td>
<td>.863</td>
<td>.837</td>
<td>73</td>
<td>43</td>
<td>+0.383</td>
<td>NS</td>
</tr>
<tr>
<td>I did not leave this appointment with unresolved issues.</td>
<td>58</td>
<td>32</td>
<td>.795</td>
<td>.744</td>
<td>73</td>
<td>43</td>
<td>+0.636</td>
<td>NS</td>
</tr>
<tr>
<td>My provider listened to what I had to say during this appointment.</td>
<td>67</td>
<td>36</td>
<td>.918</td>
<td>.973</td>
<td>73</td>
<td>43</td>
<td>-0.906</td>
<td>NS</td>
</tr>
<tr>
<td>I was involved in making decisions about my care and treatment during this appointment.</td>
<td>56</td>
<td>33</td>
<td>.767</td>
<td>.767</td>
<td>73</td>
<td>43</td>
<td>+0.000</td>
<td>NS</td>
</tr>
<tr>
<td>This appointment was better than usual in meeting my needs.</td>
<td>51</td>
<td>29</td>
<td>.699</td>
<td>.674</td>
<td>73</td>
<td>43</td>
<td>+0.281</td>
<td>NS</td>
</tr>
</tbody>
</table>

X₁, number of patients in control group indicating agree or strongly agree; X₂, number of patients in intervention group indicating agree or strongly agree; P₁, P₂, proportion of patients (control, intervention) indicating agree or strongly agree; N₁, N₂, number of patients in sample (control, intervention); Z, calculated z score for differences in proportions.

*Note: z score for two-tailed significance +/- 1.65 at alpha 0.10; +/- 1.96 at alpha 0.05.
particularly in warm weather when no coat or jacket is worn, which is most of the time in S. AZ.” Another patient suggested, “simplify it! An 8 1/2 × 11 sheet folded (2 sided) would have been sufficient.”

Conversely, several patients commented that additional space for writing questions, notes, or listing medications would be helpful. These comments included “more room for questions,” “more line-spaces for patients with an abundance of medications,” and “more space to write.” Three patients provided suggestions for expanding the use of the guidebook to accommodate more than one appointment. Several patients wrote, “page(s) could be added for future appointments/clinics” and “could include more blank pages in future issues.” Another patient commented, “having plastic covers over pages, where you can erase after each appointment and continue using the book.”

Comments about the value of the guidebook were both general and specific. General comments included, “fine idea, please keep using them,” “when and where can I get more?,” “it was very helpful to me” “was pleased with content,” “in my opinion the guidebook is very good,” and “guidebook is a very helpful tool.” Several patients wrote more specifically that “it helped me to get ready”

### TABLE 2
Comparison of Control and Intervention Sample Proportion of Patients Strongly Agreeing With Statements on Postappointment Visit Evaluation Questionnaire

<table>
<thead>
<tr>
<th>Question</th>
<th>X₁</th>
<th>X₂</th>
<th>P₁</th>
<th>P₂</th>
<th>N₁</th>
<th>N₂</th>
<th>Z*</th>
<th>Significance</th>
</tr>
</thead>
<tbody>
<tr>
<td>I was prepared for my appointment with my provider.</td>
<td>60</td>
<td>31</td>
<td>.823</td>
<td>.721</td>
<td>73</td>
<td>43</td>
<td>+1.291</td>
<td>NS</td>
</tr>
<tr>
<td>My questions were answered to my satisfaction by my provider during this appointment.</td>
<td>54</td>
<td>26</td>
<td>.740</td>
<td>.605</td>
<td>73</td>
<td>43</td>
<td>+1.517</td>
<td>NS</td>
</tr>
<tr>
<td>I did not leave this appointment with unresolved issues.</td>
<td>49</td>
<td>26</td>
<td>.671</td>
<td>.605</td>
<td>73</td>
<td>43</td>
<td>+0.718</td>
<td>NS</td>
</tr>
<tr>
<td>My provider listened to what I had to say during this appointment.</td>
<td>56</td>
<td>29</td>
<td>.767</td>
<td>.674</td>
<td>73</td>
<td>43</td>
<td>+1.093</td>
<td>NS</td>
</tr>
<tr>
<td>I was involved in making decisions about my care and treatment during this appointment.</td>
<td>47</td>
<td>27</td>
<td>.644</td>
<td>.628</td>
<td>73</td>
<td>43</td>
<td>+0.173</td>
<td>NS</td>
</tr>
<tr>
<td>This appointment was better than usual in meeting my needs.</td>
<td>39</td>
<td>19</td>
<td>.534</td>
<td>.442</td>
<td>73</td>
<td>43</td>
<td>+0.956</td>
<td>NS</td>
</tr>
</tbody>
</table>

X₁, number of patients in control group indicating strongly agree; X₂, number of patients in intervention group indicated strongly agree; P₁, P₂, proportion of patients (control, intervention) indicating agree or strongly agree; N₁, N₂, number of patients in sample (control, intervention); Z, calculated z score for differences in proportions.

*Note: z score for two-tailed significance +/- 1.65 at alpha 0.10; +/- 1.96 at alpha 0.05.

### TABLE 3
Percentage of Patients in Intervention Group Receiving Guidebook Prior to Appointment Answering “Yes” to Questions on Postappointment Guidebook Evaluation Questionnaire

<table>
<thead>
<tr>
<th>Question</th>
<th>Patients (%) Answering “yes” (n = 39)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Did you read through the appointment guidebook before your appointment date?</td>
<td>100</td>
</tr>
<tr>
<td>Was the appointment guidebook easy to read and understand?</td>
<td>100</td>
</tr>
<tr>
<td>Was there adequate space to write down your questions in the guidebook?</td>
<td>87</td>
</tr>
<tr>
<td>Did you take the appointment guidebook with you to your appointment?</td>
<td>64</td>
</tr>
<tr>
<td>Were you able to use the appointment guidebook during your appointment with your physician or nurse practitioner?</td>
<td>59</td>
</tr>
</tbody>
</table>
be more helpful if doctors gave you sufficient time during your appointment.” A third patient expressed the rather unique desire, “if you could enhance a patient’s ability to pass info to a provider thru TLC (telephone-linked care) it would be a great aid.”

Retrospective Chart Audit Prevention Indicators

Table 4 summarizes a comparison of the proportion of control and intervention patient samples receiving selected disease prevention and health promotion interventions. The proportions were compared using a 2-tailed test ($\alpha = 0.10$). A significantly higher proportion of patients in the intervention group received influenza and pneumococcal vaccinations than in the control group. Conversely, a significantly higher proportion of patients in the control group received gender-specific cancer screening in general, and prostate cancer screening education specifically. Differences in proportions between the two groups were not significant for alcohol abuse screening, colorectal cancer screening, or depression screening.

DISCUSSION

The primary hypothesis that patients receiving an appointment guidebook prior to a primary care visit would experience visit effectiveness differently than patients not receiving the guidebook was not supported by the results of the quantitative analysis performed in this study. The post-appointment visit effectiveness questionnaire may not be a sensitive instrument for determining differences in the experiences of these two groups of patients. The six statements, or the format of the questionnaire itself, may not have adequately captured the critical components of concern to patients during a primary care appointment.

Three patients offered suggestions regarding something that would be more helpful in preparing for an appointment than the appointment guidebook. One patient suggested that “calling on the telephone” would be more helpful. Another patient wrote, “guidebook not necessary for everyone. I have always made out my own questions. It would

<table>
<thead>
<tr>
<th>Measure</th>
<th>$X_1$</th>
<th>$X_2$</th>
<th>$P_1$</th>
<th>$P_2$</th>
<th>$N_1$</th>
<th>$N_2$</th>
<th>$Z^*$</th>
<th>Significance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Influenza vaccination</td>
<td>25</td>
<td>48</td>
<td>.236</td>
<td>.340</td>
<td>106</td>
<td>141</td>
<td>-1.772</td>
<td>.10</td>
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<td>Pneumococcal vaccination</td>
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<td>72</td>
<td>.519</td>
<td>.511</td>
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<td>141</td>
<td>+.0125</td>
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<td>.435</td>
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<td>.496</td>
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$X_1$, $X_2$, number of patients (control, intervention) receiving health promotion disease prevention intervention; $P_1$, $P_2$, proportion of patients (control, intervention) receiving health promotion disease prevention intervention; $N_1$, $N_2$, number of patients (control, intervention) receiving health promotion disease prevention intervention; $Z^*$, test statistic for 2-tailed test ($\alpha = 0.10$); Significance, level of significance.
visit. The higher $z$ scores obtained in the secondary analysis of only those patients answering strongly agree may indicate that an expanded scale for each statement may be warranted to detect differences between the control and intervention samples. The relatively high percentage of agreement for each of the six statements between both groups of patients confounds the ability to detect differences between the groups related to an educational intervention. The results of this pilot study provide the foundation for development and testing of a more reliable, valid, and sensitive instrument for measuring patient perceptions of primary care visit effectiveness in the veteran population.

Despite the lack of statistically significant differences between the control and intervention groups in this study, the narrative comments provided by patients in the intervention group indicate that an appointment guidebook may be useful in assisting veterans in preparing for primary care appointments. The specificity of many of the comments and suggestions for improving the guidebook may reflect a willingness and desire on the part of a majority of veteran patients to be more actively involved in the primary health care delivery process.

The secondary hypothesis of this study, that differences exist in the proportion of patients in the two groups receiving health promotion and disease prevention interventions, was supported for several indicators included in the VHA Chronic Disease and Prevention Indicators performance measure. Although causative inferences cannot be made from the design of this study, one factor contributing to the higher proportion of patients receiving influenza and pneumococcal vaccinations in the intervention group may have been the reminder provided to patients in the appointment guidebook to ask the provider about those vaccinations.

The intriguing finding from the retrospective chart audits is the significantly lower proportion of patients in the intervention group receiving gender-specific cancer screening interventions. Prostate cancer screening education was not included in the appointment guidebook, but information about cervical and breast cancer screening was included. The number of females in each of the groups was not sufficient to support any inferences on the proportion of females receiving the gender-specific cancer screening interventions, but the pattern noted for females reflected the proportions seen for males in both groups. Gender differences in communication cited in the literature and included in the background information of this article imply that female patients are more actively involved in discussions with providers and decisions regarding care, which would tend to support predictions that higher proportions of female patients would receive health promotion/disease prevention interventions about which they are aware. The preliminary findings of this pilot study support a need for further research into the factors impacting female veteran participation in primary care delivery.

This study was conducted to provide information applicable to the improvement of primary care service provision to the veteran population. A critical characteristic of the veteran population is the disproportionate number of males that constitute this group. Of note, however, is the fact that the U.S. population of males aged 65 to 85 are predominantly veterans, with the percentage ranging from 40% to almost 80% depending on age. Findings from the veteran population may indeed be useful in informing efforts to improve health care delivery services to the older adult male population in general. One additional finding that may be important to consider when implementing educational interventions is that while a significantly higher proportion of male veterans completed high school than the non-veteran population, male non-veterans are more likely to have completed college. While caution should be exercised in generalizing these results beyond the veteran population, information is available to assist the reader in determining the applicability of these findings to the non-veteran population.

**Summary**

A pilot study conducted at the SAVAHCS designed to investigate the relationship between the provision of a patient appointment guidebook and selected patient/system outcomes indicated that a guidebook might assist veterans in preparing for primary care appointments. Results from the pilot study provide information for modifying the design of a patient appointment guidebook to better address the needs of individual veteran patients. This pilot study also provides indications for the development and testing of a reliable, valid, and sensitive instrument to measure patient perception of primary care visit appointment effectiveness to support future educational intervention studies. Further research is needed to explicate the relationship between patient awareness and the provision of health promotion/disease prevention primary care interventions.

**References**


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General Purpose
To afford registered professional nurses an opportunity to review a study designed to investigate strategies to strengthen patient-provider relationships.

Objectives
After you read this article and take this test, you will be able to:
1. Describe the process of shared decision making between a patient and a healthcare provider.
2. Identify barriers to effective patient-provider communication and strategies to eliminate these barriers.
3. Discuss the benefits of active patient involvement in healthcare decision making.

Questions
1. The expected outcome of the process of shared decision making between a patient and a healthcare provider is
   a. increased use of the healthcare system.
   b. diminished pain perception.
   c. improved emotional health.
   d. decreased focus on compliance.

2. Which of these components is critical to the process of shared decision making?
   a. exchange of information
   b. relinquishment of control by the provider
   c. decreased costs for services
   d. recognition of the provider’s concerns

3. Which of these factors is associated with the variations in interest for shared decision making by patients?
   a. the patient’s previous healthcare experiences
   b. the patient’s educational level
   c. the patient’s communication style
   d. the patient’s age

4. According to Greenfield (1985), which of these patients is likely to receive the least support for psychosocial concerns from a healthcare provider?
   a. a 13-year-old who has asthma
   b. a 36-year-old first time mother
   c. a 42-year-old cancer survivor
   d. a 75-year-old male who has diabetes

5. Which of these factors has the greatest impact on a physician’s skill in expressing empathy?
   a. the physician’s specialty
   b. the physician’s gender
   c. the patient’s diagnosis
   d. the patient’s ethnicity

6. Studies by Hall et al. (1988) showed that a physician’s rating of liking will be highest for which of these patients?
   a. a newly diagnosed HIV positive patient
   b. a patient who is postoperative after a herniorrhaphy
   c. a terminally ill cancer patient
   d. an obese patient who has poorly controlled diabetes mellitus
7. Which of these factors should you focus on to improve the relationship between a healthcare provider and a patient?
   a. barrier reduction
   b. technical competence
   c. health promotion
   d. delivery systems

8. Which of these suggestions has been identified by patients as an important aspect of their interactions with providers?
   a. reducing the waiting time between scheduled appointments
   b. explaining clearly all diagnostic procedures
   c. asking patients about their perception of their own health problems
   d. providing written after care instructions

9. Which of these has been identified as the barrier to establishing an effective patient-provider relationship that is more difficult to eliminate?
   a. unrealistic patient expectations
   b. insensitive managed care constraints
   c. inappropriate diagnostic labeling
   d. inadequate third-party reimbursement

10. Which of these patient fears is likely to result in a reluctance to ask questions of a healthcare provider?
    a. fear of the unknown
    b. fear of a loss of control
    c. fear of wasting the physician’s time
    d. fear of painful procedures

11. Which of these approaches will assist a patient to assume a more active role in healthcare decision making?
    a. teaching the patient how to take medications as prescribed
    b. informing the patient of all possible diagnoses
    c. encouraging the patient to comply with the treatment plan
    d. teaching the patient how to ask the physician questions

12. Which of these approaches was identified by the pilot study focus group as important to shared decision making?
    a. assign one healthcare provider consistently
    b. rotate the patient through a variety of medical specialists
    c. schedule patient appointments in long blocks of time
    d. arrange for diagnostic tests to be performed in outpatient settings

13. Which of the following is widely used to measure the effectiveness of patient-provider interaction?
    a. patient report of symptom relief
    b. patient compliance with the treatment plan
    c. patient satisfaction survey
    d. patient visit time allocation

14. When using King’s theory of goal attainment you should incorporate which of these assumptions?
    a. The goals of the patient and provider may not be congruent.
    b. Effective behaviors need to be short-term behaviors.
    c. Patients need professional support to attain goals.
    d. The conceptual framework influences interactions between patients and providers.

15. Which of these measures was reported to be helpful when preparing patients for active participation in their primary care appointments?
    a. teaching the patient to recognize disease manifestations
    b. scheduling appointments immediately after diagnostic testing
    c. encouraging patients to write down all health instructions
    d. providing the patient with an appointment guidebook

16. Which of these postappointment patient statements was noted to have the highest rate of frequency in the reported study?
    a. “I was adequately prepared for my appointment.”
    b. “I did not leave my visit with any unanswered questions.”
    c. “My provider listened to what I said during my visit.”
    d. “This appointment was the best I ever had.”

17. Effective patient-provider communication should focus on
    a. persuading the patient to follow the treatment regimen.
    b. identifying the etiology of the patient’s problems.
    c. providing the patient with consistent support.
    d. describing all potential adverse effects of treatment.
Lippincott’s Case Management, Vol. 7, No. 3

Answer/Enrollment Form

Course Title: Strengthening Patient-provider Relationships

Passing Score: 13 (72%)
Test Processing Fee: $19.95
CE Contact Hours: 3
Registration Deadline: June 30, 2004

Instructions: Mark your answers clearly by placing an “X” in the box next to the correct answer.

Name ____________________________ Credentials ____________________________
Address __________________________ City ____________ State ____________ Zip ____________
Phone ______________ Soc Sec No ______________ State of Licensure and License No(s) ______________
Position Title __________________________ Area of Specialty __________________________

1. □ a □ b □ c □ d 7. □ a □ b □ c □ d 13. □ a □ b □ c □ d
2. □ a □ b □ c □ d 8. □ a □ b □ c □ d 14. □ a □ b □ c □ d
3. □ a □ b □ c □ d 9. □ a □ b □ c □ d 15. □ a □ b □ c □ d
4. □ a □ b □ c □ d 10. □ a □ b □ c □ d 16. □ a □ b □ c □ d
5. □ a □ b □ c □ d 11. □ a □ b □ c □ d 17. □ a □ b □ c □ d
6. □ a □ b □ c □ d

PROGRAM EVALUATION
1. Did this CE activity’s learning objectives relate to its general purpose? _____ Yes _____ No
2. Was the journal home study format an effective way to present this material? _____ Yes _____ No
3. Was the content current to nursing practice? _____ Yes _____ No
4. How long did it take you to complete this CE activity? _____ hours
5. Suggestions for future topics. __________________________