Use of a ‘Health Habits Questionnaire’ to Improve Health Promotion Counseling

Diane J. Madlon-Kay, MD; Peter G. Harper, MD, MPH; Christopher J. Reif, MD, MPH

A 10-item patient “Health Habits Questionnaire” was developed that included counseling topics recommended by the US Preventive Services Task Force. Patient education brochures for each of these topics were designed and displayed in examination rooms. The questionnaires were to be given to every adult presenting to a family medicine residency clinic for a physical examination. Charts of patients receiving physical examinations were audited. Of 368 visits, 206 questionnaires were completed. Patients who completed the questionnaire were significantly more likely to have chart documentation of counseling about seat-belt use, exercise, stress, alcohol and other drug use, and dental health. The topic areas that had no significant improvement in documentation had higher counseling documentation rates than those that improved. The Health Habits Questionnaire appears to be a useful tool to improve counseling documentation, particularly for those habits that may otherwise receive little counseling.

In 1989, the US Preventive Services Task Force published extensive and challenging recommendations for health promotion counseling.1 Health care providers are advised to routinely counsel adults about the following topics:

- Diet and exercise: fat, cholesterol, complex carbohydrates, fiber, sodium, iron, calcium, caloric balance, and selection of exercise program
- Substance use: smoking cessation and primary prevention, limiting alcohol consumption, driving and other dangerous activities while under the influence, and treatment for abuse
- Sexual practices: sexually transmitted diseases, partner selection, condoms, anal intercourse, unintended pregnancy, and contraceptive options
- Injury prevention: safety belts, safety helmets, violent behavior, firearms, smoke detectors, smoking near bedding or upholstery, prevention of falls, and hot-water heater temperature
- Dental health: regular toothbrushing, flossing, and dental visits

Most physicians are supportive of health promotion counseling.2-10 Ohio physicians who were surveyed specifically about the US Preventive Services Task Force recommendations had a high level of agreement with the counseling recommendations.2 For example, 98.9% agreed that “all patients should be urged to use occupant restraints for themselves and others.” The fewest number of physicians, 85%, agreed that “clinicians should take a complete sexual and drug use history on all adolescent and adult patients, (to prevent HIV [human immunodeficiency virus] and other sexually transmitted diseases)” and that clinicians should counsel about toothbrushing, flossing, the use of fluoride, and other preventive dental measures.

Physician agreement with the recommendations is an important first step toward actual counseling. However, it is not surprising that physicians report that they do counseling less often than they agree is recommended.10,11 More-

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The "Health Habits Questionnaire." AIDS indicates acquired immunodeficiency syndrome.

over, chart documentation of counseling is less than what physicians report doing.12

There are many barriers that keep physicians from doing and documenting the health promotion counseling that they believe is important. One of the barriers frequently cited by practicing physicians is the lack of time.13,14 The purpose of this report is to describe a method used to try to overcome this barrier: a patient "Health Habits Questionnaire," with matching patient education booklets.

METHODS

The study took place at the St Paul Ramsey Medical Center family medicine residency clinic in Minnesota. In 1990, a 10-item Health Habits Questionnaire for patients was developed to be given to all adults who were seen for complete history and physical examinations, with the exception of mentally retarded patients and patients receiving examinations for a variety of clinic contracts (Figure). The following items were included in the questionnaire: seat-belt use, exercise, nutrition, stress, smoking, alcohol use, drug use by friends or family, dental health, knowledge of acquired immunodeficiency syndrome and sexually transmitted diseases, and knowledge of contraception. Patient education booklets for each health habit were designed and placed in the examination rooms. The booklets included telephone numbers of local resources available for help with each topic. The questionnaire contained a section for patients to indicate their interest in learning more about particular health habits. It also contained a section for the physician to mark which booklets were given and which habits were discussed. The questionnaire cost 3 cents and each booklet cost 8 cents to print. Use of the questionnaire was reviewed periodically at departmental quality improvement meetings. Other departmental health promotion activities are described elsewhere.15

From April 1991 through July 1992, the charts of adults who received physical examinations at the residency clinic, not excluded for the reasons noted above, were identified by the clinic coder. A trained reviewer noted any documentation of discussion at that one visit of the health habits included in the questionnaire, regardless of whether the patient had a particular poor health habit.

Differences in counseling documentation rates for when the questionnaires were completed or absent were analyzed with χ² statistics using SPSS for OS/2 Release 4.1 (SPSS Inc, Chicago, Ill). The project was determined to be exempt from review by the medical center's institutional review board.

RESULTS

A total of 368 patient charts were reviewed. Ninety percent of the patients were younger than 50 years of age. Seventy-nine percent were women. Two hundred six of the charts contained completed health habits questionnaires. There were no statistically significant differences between patients who did and did not complete questionnaires by patient age or gender, or by year of training of their physician.

Table 1 shows the health habits of the clinic patients who completed questionnaires. Patients were considered to have a poor health habit if they chose the second or third answer to the particular question. National health habits reported in the 1991 Behavioral Risk Factor Surveillance System are shown for comparison for four of the habits.16 One hundred seventy (84%) patients were interested in further information about at least one health habit. Table 1 also shows the topics of interest to the patients. Patients who indicated interest in receiving more information about a habit were statistically significantly more likely to have counseling documented for six of the nine habits. Significant improvements in the documentation of counseling for five of the health habits were associated

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### Table 1

<table>
<thead>
<tr>
<th>Health Habit</th>
<th>National Health Habit</th>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>Seat-belt use</td>
<td></td>
<td>368</td>
<td>206</td>
</tr>
<tr>
<td>Exercise</td>
<td></td>
<td>368</td>
<td>206</td>
</tr>
<tr>
<td>Nutrition</td>
<td></td>
<td>368</td>
<td>206</td>
</tr>
<tr>
<td>Stress</td>
<td></td>
<td>368</td>
<td>206</td>
</tr>
<tr>
<td>Smoking</td>
<td></td>
<td>368</td>
<td>206</td>
</tr>
<tr>
<td>Alcohol and Drugs</td>
<td></td>
<td>368</td>
<td>206</td>
</tr>
<tr>
<td>Dental Health</td>
<td></td>
<td>368</td>
<td>206</td>
</tr>
<tr>
<td>Safe Sex</td>
<td></td>
<td>368</td>
<td>206</td>
</tr>
<tr>
<td>Preventing Pregnancy</td>
<td></td>
<td>368</td>
<td>206</td>
</tr>
</tbody>
</table>

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with questionnaire use (Table 2). Charts without the questionnaire rarely had documentation of counseling on these five habits. Nine patients whose age or gender had not been abstracted from the chart were omitted from this analysis.

### Table 1. Patient Health Habits and Interest in Learning More About Them

<table>
<thead>
<tr>
<th>Topic</th>
<th>Poor Habits, %</th>
<th>Information Requested, %</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Patients</td>
<td>United States*</td>
</tr>
<tr>
<td>Exercise</td>
<td>83</td>
<td>57</td>
</tr>
<tr>
<td>Smoking</td>
<td>56</td>
<td>23</td>
</tr>
<tr>
<td>Stress</td>
<td>48</td>
<td>23</td>
</tr>
<tr>
<td>Seat-belt use</td>
<td>47</td>
<td>42</td>
</tr>
<tr>
<td>Dental health</td>
<td>37</td>
<td>4</td>
</tr>
<tr>
<td>Nutrition</td>
<td>36</td>
<td>3</td>
</tr>
<tr>
<td>Drug use in family or friends</td>
<td>24</td>
<td>3</td>
</tr>
<tr>
<td>Alcohol use</td>
<td>6</td>
<td>3</td>
</tr>
<tr>
<td>Sexually transmitted diseases prevention knowledge</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>Contraception knowledge</td>
<td>3</td>
<td>3</td>
</tr>
</tbody>
</table>

*National health habits as reported in the 1991 Behavioral Risk Factor Surveillance System are shown for comparison.

### Table 2. Chart Documentation of Counseling at the Index Visit for All Patients Regardless of Personal Health Habits

<table>
<thead>
<tr>
<th>Topic Documented in Chart</th>
<th>Questionnaire Completed, % (n=206)</th>
<th>Questionnaire Absent, % (n=153)</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td>Exercise</td>
<td>12</td>
<td>5</td>
<td>.02</td>
</tr>
<tr>
<td>Smoking</td>
<td>27</td>
<td>28</td>
<td>.77</td>
</tr>
<tr>
<td>Stress</td>
<td>11</td>
<td>4</td>
<td>.02</td>
</tr>
<tr>
<td>Seat-belt use</td>
<td>7</td>
<td>1</td>
<td>.005</td>
</tr>
<tr>
<td>Dental health</td>
<td>5</td>
<td>1</td>
<td>.02</td>
</tr>
<tr>
<td>Nutrition</td>
<td>12</td>
<td>7</td>
<td>.06</td>
</tr>
<tr>
<td>Alcohol or drug use</td>
<td>8</td>
<td>3</td>
<td>.05</td>
</tr>
<tr>
<td>Sexually transmitted diseases prevention knowledge</td>
<td>12</td>
<td>13</td>
<td>.79</td>
</tr>
<tr>
<td>Contraception knowledge</td>
<td>14</td>
<td>14</td>
<td>.92</td>
</tr>
</tbody>
</table>

COMMENT

The Health Habits Questionnaire has been useful to the clinic in several ways. First, it provided a simple means of documenting the health habits of the patients and pointing out the major problem areas. Table 1 clearly indicates that the health habits of this population are poor. Their habits are worse than those reported nationally and far from the goals suggested by Healthy People 2000. For example, the goals of Healthy People 2000 include reducing cigarette smoking to 15% of adults, and increasing seat-belt use to 85% of motor vehicle occupants.

Second, the questionnaire provided an easy way for patients to request more information about the health habits and for physicians to learn about patient interest in the particular topics. Most patients did request information, confirming previous reports that most patients welcome health promotion counseling from their physicians.

Third, the questionnaire led to improved documentation of health promotion counseling. The improvement was noted in areas that otherwise received the least counseling: exercise, stress, seat-belt use, dental health, and drug and alcohol use. Unfortunately, many patients with poor health habits and many who requested information did not have chart documentation of receiving counseling. One reason for less than optimal counseling documentation may be poor documentation rather than lack of counseling. However, counseling may have indeed been omitted in visits by the many patients who, although presenting for a routine examination, had many psychosocial as well as medical concerns that needed to be addressed.

Because patients were not randomly assigned to receive questionnaires, it is possible that differences in patient characteristics could be the cause of improved counseling documentation rather than the use of the questionnaire. Although patient age and gender were similar in the two groups, other confounding factors could have influenced the results.

A variety of other methods have been used to try to improve health promotion counseling in a busy clinic setting. Smoking cessation, nutrition, and weight control counseling have received the most study. Physician health maintenance flow sheets have been successful in improving counseling for a few health habits. Other strategies include the use of computerized health risk appraisals and special health promotion clinics. However, these latter approaches have been criticized as costly, time-consuming, impractical to implement in nonacademic settings, and as not reaching most patients.

In contrast, the Health Habits Questionnaire and accompanying booklets are simple and inexpensive, and appear to be an effective method of improving health promotion counseling. Physicians trying to meet the challenge of the counseling recommendations of the US Preventive Services Task Force should consider using a similar tool.

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REFERENCES


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