Predictive characteristics of users of alternative medicine

Introduction

Alternative medicine is a world-wide phenomena (1, 2, 3, 4, 5, 6, 7). Utilisation of alternative medicine practices differ from 6% up to 42% of the population in different countries (1, 2, 4, 5). Use of alternative practices in US exceeds total visits in primary care in 1997 (5). A wide range of alternative practices is available to the patients (8).

As physicians’ interest in alternative medicine is raising (3, 6), many of them providing it to their patients directly as part of GPs services or referring their patients to alternative practitioners (2, 3, 9), approximately 70% of patients do not tell their regular GPs about the use of alternative medicine (10). GP should be familiar with the possibilities for alternative treatments to facilitate open communication about the use (6).

Users of alternative medicine are more likely females (2), of higher education grade (2, 4), patients suffering from chronic conditions, such as low back pain, anxiety and depression (1, 5), express lower perception of health related quality of life (1, 2) and have higher expectations from conventional medicine (1). Patients with psychiatric disorders are more likely to seek out alternative treatments for a wide range of medical problems (11).

Slovenia is facing economic transition which reflects in health care field, too (12). We are adopting many western standards of living and there is general belief on high use of alternative practices. The attitude of the Ministry of health and health care officials in our country are very strict in recognising alternative practices, so this field is out of control left to demands of the market. There is not any reliable data on the use of alternative services in our country.

The aim of the study was to determine the rate of the utilisation of alternative medicine practices in Slovene GP patients, users socio-demographic characteristics, patient satisfaction with regular GP, health related quality of life, presence of chronic condition, anxiety and depressive symptoms, use of conventional medical services, characteristics of GP and his/her practice as compared to non-users and determine predictors for the use of alternative practices.

Methods and patients

Sampling

A representative stratified sample of Slovene GPs (15 male and 21 female physicians), working in group and solo general practices in urban areas with 30.000 inhabitants or more and in rural areas was approached. One GP from each of 36 practices from all over Slovenia was approached to participate in the study. The practices were stratified in order to represent all the regions of the country. The comparison of the practices in the sample and the data about GP offices from a national registry was made. The sample of practices did not differ from the main characteristics and is representative for the general practice of Slovenia (12).

In March 1998 60 consecutive adult patients who attended each practice on a randomly allocated day were offered a questionnaire in a prepaid envelope to fill in at home. Patients with reading problems or severely mentally disturbed patients were excluded (there were 8 cases of that kind). 2160 patients were approached. The questionnaires were sent to the research unit by mail. After 14 days they were posted a reminder. The analysis of non-responders was made according to age and sex and the differences were not statistically significant.

**Questionnaire**

A self-administered questionnaire was prepared on the basis of literature review about characteristics of alternative practices users (1, 2, 3, 4, 5, 6, 7): questions on the use of health care services, patient demographic, socio-economic and health characteristics, as well attitude and experiences with health services. Validated and tested instruments EUROPEP questionnaire on patient satisfaction (14), EuroQol 5D instrument for measuring well-being and functional status (15, 16), Duke-AD instrument for measuring symptoms of anxiety and depression (17) were used for measuring health related quality of life and presence of anxiety and depressive symptoms.

**Analysis**

An Epi Info statistical package was used for descriptive statistics. Multivariat analysis was performed using SPSS statistical package.

**Results**

Out of 1753 (81,2%) returned questionnaires, data on use of alternative practices were filled in. 115 (6,6%) patients reported to visit alternative practitioners in the previous year (1997). Users of alternative medicine were younger than the rest of the patients (mean 46 yrs. vs. 51 yrs.; p=0,001) (table 1) and did not differ regarding sex. Among users were 12,0% (6/50) of patients without primary school completed, 3,1% (12/383) with primary school, 5,6% (23/409) with vocational training, 6,8% (41/602) with secondary school diploma and 11,0% (33/299) university graduates (p<0,001).

Users were more likely to suffer from a chronic condition (odds ratio 1,56 (95% confidence interval 1,04 to 2,34); p=0,03), in the past year they were more likely to experience need of emergency care (odds ratio 1,58 (95% confidence interval 1,05 to 2,40); p=0,03). Users perceived their health related quality of life as worse (71 points vs. 74 points; p=0,04) and they had more signs of anxiety and depression (p=0,02).

They were more likely to visit urban GP practices (odds ratio 1,56 (95% confidence interval 1,04 to 2,33); p=0,03), but did not differ regarding visiting solo practices, private practices or practices with appointment system. They were more likely to visit female physicians (odds ratio 1,60 (95% confidence interval 1,09 to 2,39); p=0,02) but did not differ according the age, years of experience, job satisfaction or workload of the physician. Users of alternative medicine were more frequent users of GP services (7,5 times in one year vs. 6,7 times;
p=0.04), more frequent users of specialist and hospital services (odds ratio 1.98 (95% confidence interval 1.32 to 2.97); p<0.001) and they were more likely to try to treat themselves (odds ratio 2.44 (95% confidence interval 1.61 to 3.69); p<0.001), but did not differ in use of out of hours services or home visits. They were more likely to change their regular GP a year before the study (odds ratio 2.78 (95% confidence interval 1.28 to 5.89); p=0.006) but their overall as well as satisfaction across specific aspects of care with regular physician through the year before the study did not differ.

**Multivariat analysis**

Variables showing significant levels in univariate analysis entered multivariate model: patient sociodemographic characteristics: younger age and higher education, patient health status: worse functional status, presence of symptoms of mental disorders and expressed need for emergency care, presence of a chronic condition, health related behaviour: higher frequency of office visits, higher specialist and hospital utilisation, changing personal GP recently and higher level of self-care, doctor and practice characteristics: urban area and female doctor. Step-wise discriminant analysis was used to calculate Wilks’ Lambda (0.962, Chi-square=56.860, df=7, p=0.00).

Multivariate modeling showed higher levels of self-care, change of a personal doctor in last year, younger age of the patient, higher levels of education and visiting specialist or hospital services in previous year were significant predictors for the use of alternative medicine (table 2).

*(table 2)*

**Discussion**

Alternative medicine inspite of universe use remains a subject of dispute in medicine (18) and we still have to learn a great deal about the needs, expectations and demands of the patients using these practices. The present study confirms results from previous studies in many ways: Firstly, albeit low levels of use of alternative medicine in Slovene patients, we have to admit co-existence of alternative medicine. The utilisation levels are very low comparing to the levels found by other authors (1, 2, 4, 5). This finding can be attributed to the fact that the patients in our health care system have good access to the primary as well to the secondary health care services. The patients in our country are relatively frequent users of primary care services, so they have an opportunity to communicate the majority of their health related problems in the institutionalised health care services. We have a long tradition of family medicine in Slovenia with patients lists and a grate emphasise on good doctor-patient relationship (12). As we have universal coverage for the majority of health care services, so the patients are not willing to pay out-of-pocket money for any medical treatment as well for the alternative services. Some bad outcomes that followed alternative treatments in our country made patients more cautious in selecting alternative methods for their problems.

Secondly, we could not demonstrate grater use of alternative practices of women found by Bernstein (2) but on the other hand we found age as an important factor in determining use of alternative practices. Middle aged patients were the most active in using alternative help (4).
Thirdly, we confirm findings of other authors, users of alternative practices suffer from chronic conditions, have lower perceptions of quality of life and greater presence of symptoms of anxiety and depression (1, 2, 5, 11). They felt more likely the need to seek emergency care. This findings show unresolved health care problems might be the trigger to seek besides conventional medical care unconventional ways for help, too.

Fourthly, distinctive features of user of alternative medicine emerge from studying health related behaviour of those patients. They are heavier users of primary as well secondary care services, changing their GP if their expectations are not met. Albeit satisfied with recent regular GP, indicating patients’ demands are whether due to more serious illness or higher expectations on health care services a powerful predictor of alternative medicine utilisation (1). This findings are in agreement with Davidson and co-workers who advocate physicians should be aware of patients’ health care seeking behaviour and health beliefs and should discuss the topic with their patients in order to make an early diagnosis of underlying (mental) disorder (11, 19).

Lastly, our multivariate model showed that five patient characteristics: higher levels of self-care, change of a personal doctor in last year, younger age of the patient, higher levels of education and visiting specialist or hospital services in previous year are predictors for the use of alternative medicine by the patients.

Alternative medicine as phenomena can not be overlooked. GPs should be taught about the characteristics of utilisers of alternative medicine. Doctors should not blame themselves, if their patients use alternative services besides their care. Seeking alternative medicine practices seems to be led by patient characteristics which can be attributed to more active patient practices in managing their problems. The doctors should inquire their patients about the use of practices especially in patients who are more likely to seek such help. Doctor – patient communication can be improved through discussion on use of alternative medicine and underlying health problems resolved. To better understand the problem of alternative medicine uptake by the populations further studies are needed which should include psychological characteristics of the users.
Summary. Background: Use of alternative practices became an important phenomena in health care delivery.

Objectives: To evaluate patient characteristics, morbidity, functional status, quality of life, satisfaction with care, practice characteristics and health care utilisation in general practice patients using alternative medicine.

Design: Cross sectional survey of GP patients completing a self-administered questionnaire.

Setting: A stratified sample of 36 GP offices in Slovenia.

Subjects: 60 consecutive patients in sampled practices contacting the doctor in the office during study period in March 1998.

Main outcome measures: patients’ age, sex, educational status, residence, presence of chronic condition, measures of anxiety or depressive symptoms, rates of patient expressed need for emergency care in one year, rates of self-care, measures of functional status, quality of life, satisfaction with care, rates of using out of hours services, specialist or hospital services in users vs. non-users.

Results: 115/1753 (6.6 %) patients reported to visits alternative practitioner in 1997. Users of alternative medicine were from middle age group, have more likely chronic conditions, had lower perception of quality of life, greater presence of symptoms of anxiety and depression and express greater needs for emergency treatment. They are heavier users of primary as well secondary care services they have changed their GP recently but they are not significantly dissatisfied with current regular GP.

Conclusions: Seeking alternative medicine practices seems to be led by patient characteristics which can be attributed to more active patient practices in managing their problems. GPs should inquire their patients about the use of practices especially in patients who are more likely to seek such help. Doctor – patient communication can be improved through discussion on use of alternative medicine and underlying health problems resolved.

Key words:
- Alternative medicine
- Health services accessibility
- Primary health care
- Family practice
- Patient satisfaction
References


Table 1. Users of alternative medicine according to the age groups.

<table>
<thead>
<tr>
<th>AGEGROUP</th>
<th>USERS*</th>
<th>%</th>
<th>NON-Users</th>
<th>%</th>
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<tbody>
<tr>
<td>18-39</td>
<td>34</td>
<td>7.3</td>
<td>429</td>
<td>92.7</td>
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<tr>
<td>40-54</td>
<td>49</td>
<td>8.6</td>
<td>520</td>
<td>91.4</td>
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<tr>
<td>55-64</td>
<td>20</td>
<td>5.6</td>
<td>340</td>
<td>94.0</td>
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<tr>
<td>65-HI</td>
<td>11</td>
<td>3.2</td>
<td>336</td>
<td>96.8</td>
</tr>
<tr>
<td>Total</td>
<td>114</td>
<td>6.6</td>
<td>1625</td>
<td>93.4</td>
</tr>
</tbody>
</table>

*a Data on one patient are missing, ^p=0.01

Table 2. Coefficients of regression analysis.

<table>
<thead>
<tr>
<th>Variable</th>
<th>B</th>
<th>Std. Error</th>
<th>Beta</th>
<th>t</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Self-care</td>
<td>4.447E-02</td>
<td>.013</td>
<td>.089</td>
<td>3.398</td>
<td>.001</td>
</tr>
<tr>
<td>Change of personal doctor</td>
<td>9.929E-02</td>
<td>.036</td>
<td>.071</td>
<td>2.768</td>
<td>.006</td>
</tr>
<tr>
<td>Age of the patient</td>
<td>1.208E-03</td>
<td>.000</td>
<td>.074</td>
<td>2.696</td>
<td>.007</td>
</tr>
<tr>
<td>Education</td>
<td>-1.374E-02</td>
<td>.006</td>
<td>-.063</td>
<td>-2.420</td>
<td>.016</td>
</tr>
<tr>
<td>Visiting specialist or hospital</td>
<td>3.006E-02</td>
<td>.014</td>
<td>.061</td>
<td>2.222</td>
<td>.026</td>
</tr>
<tr>
<td>(Constant)</td>
<td>1.647</td>
<td>.067</td>
<td></td>
<td>24.692</td>
<td>.000</td>
</tr>
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</table>

*a Dependent Variable: use of alternative services

Table 3. Extraction of components using principal component analysis for users of alternative medicine services and equamax rotation method with Kaiser normalization.

<table>
<thead>
<tr>
<th>Variable</th>
<th>Component 1</th>
<th>Component 2</th>
<th>Component 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Self-care</td>
<td>-.759</td>
<td>-7.302E-03</td>
<td>.114</td>
</tr>
<tr>
<td>Change of personal doctor</td>
<td>.225</td>
<td>.770</td>
<td>-.265</td>
</tr>
<tr>
<td>Age of the patient</td>
<td>6.131E-02</td>
<td>-3.429E-03</td>
<td>.870</td>
</tr>
<tr>
<td>Education</td>
<td>.237</td>
<td>-.714</td>
<td>-.327</td>
</tr>
<tr>
<td>Visiting specialist or hospital</td>
<td>.656</td>
<td>7.482E-03</td>
<td>.380</td>
</tr>
<tr>
<td>% variance explained</td>
<td>22.3 %</td>
<td>22.1 %</td>
<td>21.8 %</td>
</tr>
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</table>