Health Services Research

Advice to patients in Swedish primary care regarding alcohol and other lifestyle habits: how patients report the actions of GPs in relation to their own expectations and satisfaction with the consultation

Kjell Johansson¹, Preben Bendtsen¹, Ingemar Åkerlind¹,²

Background: Lifestyle advice given by general practitioners (GPs) may be a cost-effective means of health promotion; however, it is not fully put into routine practice. The aim of this study was to explore to what extent GPs’ patients expect and receive advice concerning alcohol, tobacco, exercise and diet as part of routine practice.³⁻⁷

In a survey of GPs in the UK, the majority were very positive towards health promotion and disease prevention, several reports have pointed out the need for improvement concerning the offering of lifestyle advice as part of routine practice.³⁻⁷

A tertiary preventive perspective guides GPs’ practice of giving advice. A number of patients made a point of discussing life-style habits as a routine practice. In a study by Herbert and Bass, ¹⁰ 90% of primary care patients in Canada thought that the physician should ask about drinking behaviour, yet only 42% recalled ever being asked about their alcohol habits. In a British study, 36% of the patients thought that the GP should be interested in their lifestyle habits, but only a quarter of these had ever received lifestyle advice when visiting the primary care setting. Among specific habits, this discrepancy was largest for alcohol. The patients who received advice were more satisfied with their visit to the doctor. Conclusions: A tertiary preventive perspective guides GPs’ practice of giving advice. Male patients with advanced illnesses are given priority. Women and patients with long-term risk habits are more neglected. The GPs tend to misjudge the expectations and needs of their patients and are too restrained in their counselling practice. Alcohol is the most disregarded area of advice in proportion to the patients' expectations and needs.

Keywords: alcohol drinking, counselling, health behaviour, patient satisfaction, primary health care.

The evidence for the cost effectiveness of brief lifestyle advising in health service is still growing, showing a favourable outcome for issues such as smoking, alcohol use, physical exercise and diet. While an increasing number of general practitioners (GPs) recognize the importance of health promotion and disease prevention, several reports have pointed out the need for improvement concerning the offering of lifestyle advice as part of routine practice.³⁻⁷

In a survey of GPs in the UK, the majority were very positive towards health promotion and disease prevention, several reports have pointed out the need for improvement concerning the offering of lifestyle advice as part of routine practice.³⁻⁷

The primary health care setting is generally considered to be appropriate for health promotion and early alcohol intervention.¹⁻¹³ However, a low degree of application of such methods in regular practice has been demonstrated in several reports.¹³,¹⁵⁻¹⁷ Lack of skills and support but also uncertainty about the physician’s role legitimacy,¹¹,¹₆,¹₈,¹₉ as well as difficulties in integrating alcohol prevention with other activities at the health-care centres,¹₃,¹₄,¹₉⁻²² have been pointed out as reasons.

The aim of the present study was to explore to what extent people attending primary care in Sweden expect and receive advice concerning alcohol use in relation to other lifestyle advice about smoking, physical exercise and diet. In addition,
predictors of receiving advice were to be analysed, as well as the fulfillment of patients’ expectations concerning lifestyle advice and satisfaction with the visit.

Materials and Methods

Study setting
This study was part of a more comprehensive survey of patient satisfaction with consultation of GPs in primary care in the county of Östergötland, which is situated in southeast Sweden and has a population of ~420,000 (approximately 5% of the population of Sweden). All primary care in the region is managed by 41 centres, each with from 4000 to 19,000 patients listed during 1998.

Study group
All 41 primary care centres (PCCs) in the county were included, but two of them failed to participate. A representative sample of 250 patients was selected at each PCC from those patients 1 year of age or older who consulted GPs at the remaining 39 PCCs during a period of 6 weeks in 1998. The selection procedure was consecutive and adjusted in order to attain equal-sized samples from each PCC. In the present analysis, only patients aged 18–79 were included.

There were 2890 (62%) female and 1792 (38%) male respondents in the age groups included, i.e. in total 4682 respondents. The mean age was 52.5 years. The age distribution of the men was more positively skewed (mean 54.4 years, median 56 years) in comparison to the women (mean 51.3 years, median 52 years). There was good agreement between mean age in the samples at each PCC and register data for age in their listed populations.23 The selection procedure employing the same sample size at all PCCs implies some overrepresentation of patients from small PCCs in the total sample. However, there was no co-variation between PCC size and any outcome measure.23

Procedure
All patients who came to the PCCs to visit a GP were informed about the study by placards and leaflets in the waiting rooms. Patients who did not want to participate were requested to inform the receptionist of their waiver. These patients were excluded from the selection procedure. They were estimated to be a very small minority of all visiting patients. A questionnaire was sent by post within 2 weeks after the GP visit to the selected patients. Patients who made more than one GP visit during the study period were only included for the first visit.

The total response rate after two reminders was 69% (n = 6734/9750). The response rate at each PCC varied between 53% and 81%. In a multiple regression analysis, a high response rate at a PCC was predicted by a low rate of persons born outside Sweden in the population of their catchment area, together with a high mean for general satisfaction with the GP consultation.

Instrument
The questionnaire was constructed in accordance with the Quality Satisfaction and Performance model although the original 1–10 response scale was altered to 1–7,23,24

The entire questionnaire comprised 33 questions. The first 12 questions included age, sex, perceived health status, previous in- and out-patient care episodes during the last year, type of appointment, whether the patient met the same GP as at the last previous visit to the PCC, and whether the patient had a personal GP at the PCC. Eighteen questions explored the patients’ view of accessibility, availability, treatment, information, confidence, communication, participation, medical outcome and overall satisfaction with the consultation. In addition, the patients were asked whether they, in anticipation of the visit, had expected advice concerning diet, physical exercise, smoking and alcohol habits. They were also asked whether they had received any advice in these areas during the most recent visit to a GP.

Satisfactory validity properties of the questionnaire have been shown in analyses of differences between groups of patients as well as between PCCs.23

Statistical methods
The χ²-test was used in univariate analyses. The statistical significant variables in the univariate analyses were entered in a multivariate logistic regression model to assess their simultaneous impact as predictors of lifestyle advice and patient satisfaction. Odds ratios (ORs) were used in comparisons of univariate and multivariate analyses. The statistical analyses were performed using the computer software Statview version 5.01.

Results
The incidence of lifestyle advice
The great majority of patients could not recall having received any advice for the four lifestyle areas at their most recent visit to the PCC. Only 18% reported that they had received advice in at least one area. There was an almost four-fold variation between the most common type of advice (exercise) and the rarest type (alcohol) (table 1).

Age and gender differences
Among patients between 30 and 69 years of age, there was an almost linear increase with advancing age for exercise, diet and tobacco advice (figure 1). In the oldest age group (70–79 years), the growth levelled off for exercise and diet and declined for tobacco. The low level of alcohol advice was fairly independent

Table 1 Frequency of patient reported advice in the four lifestyle areas

<table>
<thead>
<tr>
<th>Lifestyle area</th>
<th>Received advice</th>
<th>Total responding (n)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>n</td>
<td>%</td>
</tr>
<tr>
<td>Exercise</td>
<td>677</td>
<td>16.3</td>
</tr>
<tr>
<td>Diet</td>
<td>553</td>
<td>13.3</td>
</tr>
<tr>
<td>Tobacco</td>
<td>358</td>
<td>8.8</td>
</tr>
<tr>
<td>Alcohol</td>
<td>187</td>
<td>4.7</td>
</tr>
</tbody>
</table>

Figure 1 Percentage of patients in different age groups who reported advice in the four lifestyle areas
of age. There was only a slight increase with age in the youngest half of the study group. When dividing the age span into three parts (18–39; 40–59; 60–79 years) and adjusting for gender, the older groups had significant ($P < 0.01$) ORs concerning advice for exercise (OR 1.5 and 1.9, respectively), diet (OR 1.4 and 2.0, respectively) and tobacco (OR 1.5 and 1.5, respectively). In the case of alcohol only the middle age group had a significant ($P < 0.05$) OR (1.5). In all lifestyle areas, male patients reported significantly ($P < 0.0001$) more often than female patients that they had both expected and received advice (figure 2). When adjusting for age, the male ORs for receiving advice were 1.6 for exercise, 1.5 for diet, 1.9 for tobacco and 2.4 for alcohol.

**Comparison between the expected and received advice**

The proportion of patients that received advice was higher than the proportion that expected advice concerning exercise, diet and tobacco, but not concerning alcohol (figure 2). In all lifestyle areas, the advice outcome coincided to a large extent with the patients’ expectations. Seventy-six percent of the patients who expected advice concerning exercise also received it. Corresponding numbers for diet, tobacco and alcohol were 74%, 70% and 62%, respectively. However, in cases of mismatch between expectations and advice there were some notable differences between the lifestyle areas. Male patients reported a higher rate of unexpected advice than females in all lifestyle areas (figure 3). Female patients reported a higher rate of unfulfilled expectations in all areas except for alcohol (figure 4). Moreover, when comparing figures 3 and 4 it is obvious that the discrepancy between the unfulfilled expectations of advice and the unexpected advice was highest for alcohol.

**Predictors of receiving advice**

Predictors of receiving advice were first analysed by a series of univariate analyses. Patients with poorer self-rated health reported significantly more often advice in all lifestyle areas (OR 1.8–2.8). Patients with scheduled appointments had a significantly larger chance of receiving advice in comparison to patients with more acute visits (OR 0.1–0.8). A higher number of previous visits were positively related to the probability of receiving advice in all areas (OR 1.5–3.8). Patients with a personal GP reported a significantly higher degree of advice concerning exercise, tobacco and diet (OR 1.4–1.9), but not concerning alcohol.

Finally, all background factors that had appeared as significant predictors of lifestyle advice in the univariate analyses were included in a logistic regression analysis. Male gender, poorer self-rated health and scheduled appointments remained to be significant predictors of all kinds of advice (table 2). Regarding exercise, diet and alcohol advice, however, a higher amount of care consumption (number of visits to any PCC during the last 12 months) also appeared as a significant predictor. Continuity in the GP–patient contact (to have a personal GP) was beneficial for exercise and diet but not for tobacco and alcohol advice.

**Lifestyle advice in relation to patient satisfaction**

Overall patient satisfaction with the GP call (dichotomized: score 1–6, $n = 2197$ versus score 7, $n = 2333$) was predicted in relation to lifestyle advice while adjusting for gender and age.
in a series of logistic regression analyses. The patients who reported advice were significantly more satisfied with the visit (exercise, OR 1.3, \( P < 0.01 \); diet, OR 1.3, \( P < 0.01 \); tobacco, OR 1.5, \( P < 0.001 \); alcohol, OR 1.4, \( P < 0.05 \)).

### Discussion

The study explores clinical practice with regard to given alcohol and other lifestyle advice in primary health care as reported by the patients. The low percentage of patients (18%) that reported receiving lifestyle advice was at much the same level as reports from the UK and the USA.\(^4\)\(^5\) In contrast, however, the percentage of given lifestyle advice as reported by the physician has been higher in several studies.\(^4\)\(^,\)\(^8\)\(^,\)\(^10\)\(^,\)\(^25\) These discrepancies between perceived and actual communication\(^26\) are not necessarily contradictory. The doctor may have offered advice but the patient did not comprehend it because of defence mechanisms or cognitive shortcomings. Moreover, the doctor may have been too vague in an attempt not to provoke the patient. In any case, the patient’s report of advice reflects the effect of the encounter independent of the GP’s intention.

The great majority of previous studies concerning lifestyle advice have shown that alcohol advice is given the least attention compared with other lifestyle areas.\(^27\) In our study we found an almost four-fold variation between the most frequently reported types of advice (exercise, 16.3%) and the least frequently reported (alcohol, 4.7%).

Since our study did not examine the need for advice, it is not possible to make any conclusions about the accuracy of the GP behaviour in individual case. However, some inferences may be made when comparing our data with other data sources. A Swedish study of the general population showed that 18% of men and 11% of women exhibited hazardous or harmful alcohol consumption.\(^28\) A survey among primary care patients in Sweden identified 17% of the men and 8% of the women as heavy alcohol consumers.\(^29\) Henceforth, when considering the expected level of harmful alcohol consumption together with the reported tendency of overestimation in patient reports concerning advice,\(^30\) there seems to be considerable under-recognition by GPs. This is in line with a recent report from Finland, where only 12% of excessive drinkers were asked about their alcohol habits.\(^6\)

In order to explore why the practice of giving lifestyle advice is so sparse among GPs, it is important to analyse which type of patients they focus on and in which organizational setting the advising takes place. Male patients with advanced illness on recurrent scheduled appointments are given priority. The results indicate that a marked tertiary preventive perspective primarily guides the GPs advice practice, with special focus on the established medical consequences of inappropriate lifestyle habits. This is in line with findings of Flocke et al.\(^27\) and Beaudoin et al.,\(^31\) who concluded that GPs concentrate their energy on perceived high-risk patients. Younger patients with lifestyle habits that imply health risks in the long run are more neglected.

Obviously, actual practice is far from the advocated routines for prevention of health problems related to lifestyle, and especially for prevention of alcohol-related health problems, i.e. screening patients for high alcohol consumption followed by a brief intervention.\(^32\)\(^,\)\(^33\) This model requires that health-care personnel, as part of the daily routine, ask all patients about alcohol use, not only those with apparent alcohol-related symptoms.

It is also notable that female patients received less advice than the male patients in lifestyle areas such as exercise, diet and tobacco, areas in which the habits of women in the general population are not generally better than those of men. Some older studies have reported that women ask more questions and receive more information and advice.\(^33\)\(^,\)\(^34\) However, Beaudoin et al.\(^31\) found that male patients enjoyed discussions of greater length and a larger number of topics during their consultations.

Fear of disturbing the relationship with the patient is an often-mentioned barrier to giving lifestyle advice, especially concerning alcohol consumption.\(^2\) Thus, unfulfilled expectations of advice were much more common than unexpected advice in all lifestyle areas, and the discrepancy was most marked for alcohol. The fear of disturbing the relationship by giving advice was, however, contradicted by the patient satisfaction data. The patients who received advice were more content with their GP consultation. In a Canadian study,\(^35\) the authors found a positive satisfaction effect of questions or advice only in the case of tobacco, and concluded that other types of lifestyle advice did not at least diminish patient satisfaction. The patients who received tobacco advice were most satisfied in our study as well, but exercise, diet and even alcohol advice were also related to higher satisfaction.

Continuity in the contact between the GP and the patient is often referred to as a favourable condition for lifestyle counseling. In this study, however, that was only true for exercise and
diet, but not for alcohol and tobacco, which indicates that these topics are more delicate and that GPs are afraid of provoking negative reactions.\textsuperscript{3}

There are some limitations to our study. The patients were questioned retrospectively and only about receiving advice but not about receiving questions about lifestyle habits. Moreover, the patients could be under-reporting actual lifestyle advice and the patients could be under-reporting actual lifestyle advice. Besides, the patient called and got an appointment the same day; 4 called but did not get an appointment the same day; 5 was not documented at an individual level.

In conclusion, the lifestyle intervention potentialities in primary care appear to be far from optimally developed. Men and women with advanced illness are given priority at the expense of women and patients with hazardous habits who are still without symptoms. Patients who receive advice are more satisfied with their consultation. Alcohol is the most disregarded area of advice in proportion to the patients’ expectations and needs.

GPs tend to misjudge the expectations and needs of their patients and are obviously too restrained in their counselling practice. Accordingly, professional training would gain by focusing more on the actual opinions and reactions of their patients. The legitimacy of extending the focus in primary care from secondary to primary prevention has been called into question. Our results indicate that the issue is rather to complete a tertiary perspective with an adequate risk group conception and identification.

Acknowledgements

The authors wish to thank Anders Nordlund, PhD, for statistical guidance. This study was financed by the County Council of Östergötland, Sweden and by the Ester Johansons memorial fund. A preliminary version of the findings was presented at the EUPHA annual meeting in Dresden, 2002 [abstract in Eur J Public Health 2002;12(4 Suppl):35–6].

Key points

- The aim was to explore to what extent patients expect and receive life-style advice when visiting primary health care.
- Exercise was the most (16%) and alcohol the least (5%) common type of life-style advice and patients receive life-style advice more often than expected except for alcohol.
- Male gender, poorer self-rated health and scheduled appointment were independent predictors of life-style advice.
- The GPs tend to misjudge the expectations and needs of their patients and are too restrained in their counselling practice, especially concerning alcohol advice.
- There is a need to further elaborate routines for life-style advice counselling in primary health care.

References


23 Åkerlind I. Patientupplevd kvalitet i primärvården i Östergötland. [The quality of primary health care as experienced by patients.] Norrköping: Unit of R&D in Primary Care, County Council of Östergötland, 1999.


29 Nordström A, Winberg J, Persson S. Results of a primary health care study on alcohol: 17 per cent of men, 8 per cent of women were probable heavy consumers. *Lakartidningen* 1998;95:4739–40, 4743.


Received 30 March 2004, accepted 9 August 2004