Health status and health care utilisation of patients in complementary and conventional primary care in Switzerland—an observational study

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Background. The study is part of a nationwide evaluation of complementary and alternative medicine (CAM) in primary care in Switzerland.

Objectives. Patient health status with respect to demographic attributes such as gender, age, and health care utilisation pattern was studied and compared with conventional primary care.

Methods. The study was performed as a cross-sectional survey including 11 932 adult patients seeking complementary or conventional primary care. Patients were asked to document their self-perceived health status by completing a questionnaire in the waiting room. Physicians were performing conventional medicine and/or various forms of complementary primary care such as homeopathy, anthroposophic medicine, neural therapy, herbal medicine, or traditional Chinese medicine. Additional information on patient demographics and yearly consultation rates for participating physicians was obtained from the data pool of all Swiss health insurers. These data were used to confirm the survey results.

Results. We observed considerable and significant differences in demographic attributes of patients seeking complementary and conventional care. Patients seeking complementary care documented longer lasting and more severe main health problems than patients in conventional care. The number of previous physician visits differed between patient groups, which indicates higher consumption of medical resources by CAM patients.

Conclusions. The study supports the hypothesis of differences in socio-demographic and behavioural attributes of patients seeking conventional medicine or CAM in primary care. The study provides empirical evidence that CAM users are requiring more physician-based medical services in primary care than users of conventional medicine.

Keywords. Complementary and alternative medicine, health resources, primary care, technology assessment.

Introduction

The regulation of health insurance coverage for complementary and alternative medicine (CAM) varies considerably across various national health plans.[1–3]

Increased use of CAM and consistent lobbying from CAM practitioners and health consumer groups has resulted in higher pressure on policy makers to include CAM in basic health coverage in various countries.[4–8] Similarly, following a political discussion, the Swiss Federal Department of Home Affairs decided in 1998 to add four methods of complementary medicine to the benefit catalogue of basic health insurance on a temporary basis. The methods included homeopathy, anthroposophical medicine, neural therapy, and traditional Chinese herbal medicine. In this same context, acupuncture was included—based on a positive appraisal by the federal Expert Commission for Health Insurance Benefits—on a permanent basis. Reimbursement of expenditures for alternative medicine is

covered by the basic health insurance package only when these methods are provided by physicians with appropriate CAM training approved by the Swiss Medical Association. This interim arrangement ends in 2005 when a political decision will be made either to retain in or exclude CAM from the basic health insurance package. Several studies were therefore designed in a nationwide evaluation of CAM. As part of this project, the present study aimed at the evaluation and comparison of the self-perceived health status of adult patients (older than 16 years) and their use of resources in conventional and complementary primary medical care.

Methods

Design

We studied complementary primary medical care provided by conventionally trained and licensed physicians who have additional training outside of medical school in homeopathy, anthroposophical medicine, neural therapy, herbal medicine, or traditional Chinese herbal medicine (TCM). The study was performed as a cross-sectional survey in 363 primary care practices including initially 13 915 patients (14% children, 86% adults) seeking complementary or conventional care in Switzerland.

Physicians were invited by letter to participate in the study on a voluntary basis and were reimbursed 500 Swiss Francs (330€) each for their expenditures. Membership lists of societies of CAM physicians (Swiss medical associations for homeopathy, anthroposophic medicine, neural therapy, herbal medicine, and traditional Chinese medicine) were obtained and all members working as primary care providers for at least two days a week were asked to participate. A stratified random sample of physicians who were not listed as members of a CAM association also was invited to participate in the study. Stratification was used in this context to select a sample of conventional (COM) physicians matched to the regional distributions of CAM physicians.

Collection of patient data took place on four days distributed over a twelve-month period. Sampling times were October 2002, and January, May and August 2003. The physicians asked all their patients to participate in the study on one day in each of these periods (the day was chosen by the study coordination and equally distributed across weekdays).

For the present article, only patients older than 16 years were included (360 practices and 11 932 patients). Results from younger patients will be presented separately. Sampling took place in the waiting room prior to the consultation using a questionnaire. This questionnaire was developed in close cooperation with an expert group of Swiss primary care providers specializing in conventional and/or complementary

medicine. Questionnaires were provided in either German, French, or Italian depending on the mother tongue of patients.

Additional information regarding patient demographics and yearly consultation rates (number of consultations per patient) for participating physicians was obtained from the data pool for 2002/2003 of all Swiss health insurers (Santesuisse). The ethics committee of the Kanton Bern raised no objection to the study.

Participants

Patients were classified into three groups based on the professional qualification and on the self-declared medical activity of their physicians within the currently active legal framework of reimbursing CAM in Swiss primary care:

  COM patients: Patients who visited physicians providing no CAM services (conventional primary medical care physicians).
  CAM– patients: Patients who visited physicians providing CAM without professional certification in CAM and without reimbursement of expenditures for CAM procedures in basic health insurance (non-certified CAM physicians).
  CAM+ patients: Patients who visited certified CAM physicians with CAM procedures provisionally recognized by basic health insurance (homeopathy, anthroposophical medicine, neural therapy, traditional Chinese medicine).

Main outcomes

After signing informed consent, patients were asked to document their general health status, the nature of their main health problem, as well as its duration and severity. Further questions were aimed at demographic information and number and type of previous treatments.

All data were recorded using a relational database. Patients' forms were coded and recorded manually. Continuous variables such as age and yearly consultation rates were analysed using linear models with Bonferroni adjustments in case of multiple comparisons. Categorized variables were either analysed using chi-square tests for univariate analyses or logistic regression for binary outcomes and multiple explanatory variables. Multivariate analyses were performed primarily to account for effects of gender and age of patients, and stratification was used to investigate effects of disease duration. Patients with a disease duration of more than three months were defined as chronic and the remainder as acute. All analytical procedures accounted for non-independence of observations at the practice level using Taylor series expansion procedures. Ninety-five percent confidence intervals (95% CI) of means and proportions were calculated accordingly. The level of significance was set at $P < 0.05$ throughout the study. SAS 9.1 (SAS Institute Inc., Cary, NC, USA) was used for all calculations.

Results

The sample of 360 physicians represented six percent of all Swiss primary care providers in 2002. Patients were recruited by 84 COM physicians (23%), CAM– patients came from 87 physicians (24%) and CAM+ patients were treated by 189 physicians (53%). The average number of patients recorded per physician during the four days of sampling was 37 for conventional and 32 for both types of complementary physicians. 115 physicians (32%) were certified in homeopathy, 56 (16%) in traditional Chinese medicine, 23 (6%) in anthroposophic medicine, 19 (5%) in neural therapy, and 64 (18%) physicians had multiple CAM certificates.

Demographic attributes of patients

The frequency distribution of patients across groups was COM: 3103 (26%), CAM–: 2821 (24%) and CAM+: 6008 (50%). Significant differences of gender were observed between patient groups; the proportions of female patients were COM: 56%, CAM–: 61% and CAM+: 70%. Average age also differed significantly between patient groups (COM: 52.1 years, CAM–: 50.6 years, CAM+ 49.1 years).

The information obtained from the data pool of Swiss health insurers allowed the comparison of patient demographics in the sample with the entire patient population of each participating physician for 2002 and 2003. These comparisons indicate a slight overrepresentation of female patients in our sample (differences: COM: +1.8%, CAM–: +0.3%, CAM+: +2.7%), and that sampled patients were younger than the respective averages in the data pool (Differences: COM: –4.2 years, CAM–: –4.7 years, CAM+: –2.5 years).

Seventy-four percent of patients spoke German, 14.4% French, 5.1% Italian and 6.2% other languages. Significant differences were observed for educational levels between groups of patients. The proportion of patients with college or university degrees was highest in CAM+ patients (26%), followed by CAM– (21%) and COM patients (20%). No significant differences between patient populations were seen for place of residence with respect to urbanization.

Self-perceived health status

Patients were asked to rate their general health on a five-point Likert scale ranging from excellent to poor. Answer patterns indicate no significant differences in self-perceived health status between patient groups (Table 1). Age stratified analyses across age groups 16–30, 30–65 and 65–99 and analyses stratified by gender revealed consistent patterns across patient groups.

The patients were asked to indicate the main reason for the consultation as free text on the questionnaire. Answers were classified at data entry into 15 categories based on the top domain of the ICD10 classification. Significant differences were observed between patient groups (Table 2). Low proportions were seen in the CAM+ group for circulatory disorders and control examinations (included in the factors influencing health status and contact with health services) as the main reason for a consultation. High proportions for diseases of the nervous system and sense organs were found in the CAM+ group.

Patients recorded the duration of their main health problem. Using a logistic regression model, significant differences of the gender and age adjusted proportion of chronic diseases were observed across patient groups, indicating a longer disease duration in CAM+ patients followed by CAM– and COM patients (Table 3). Significant effects of the patient group × age interaction in this model indicate that differences between groups are not constant across patient age; i.e. differences decrease with increasing age (Table 3).

Patients were further asked to rate the severity of their main health problem using a three-level scale (minor, moderate, or serious). Significant differences of severity scores were observed between groups. The highest proportion of patients considering their main health problem as serious was found in the CAM+ group (Table 4). A multivariate logistic regression model with self-reported severity as outcome (answer

TABLE 1   *Self-perceived health status of patients*

Health status	COM		CAM–		CAM+	
	%	95% CI	%	95% CI	%	95% CI
Excellent	4.7	4.0–5.5	4.5	3.6–5.4	3.4	2.8–3.9
Very good	20.4	18.5–22.4	20.9	19.2–22.7	19.7	18.3–21.1
Good	50.9	49.1–52.7	50.4	48.4–52.3	51.1	49.6–52.5
Fair	20.4	18.3–22.5	20.7	19.0–22.3	21.9	20.3–23.5
Poor	3.5	2.8–4.3	3.5	2.7–4.3	4.0	3.3–4.7

TABLE 2   *Main reason for consultations as seen by patients*

Indication (ICD 10)	Overall frequency	COM %	CAM– %	CAM+ %	Overall %
Diseases of the musculoskeletal system and connective tissue	2690	21.8	22.8	25.1	23.7
Diseases of the circulatory system	1107	13.5	10.9	7.4	9.8
Diseases of the respiratory system	1097	9.8	9.2	9.8	9.7
Factors influencing health status and contact with health services	1042	13.2	11.5	6.1	9.2
Mental and behavioural disorders	936	7.1	7.0	9.4	8.3
Diseases of the nervous system[a]	841	5.0	5.1	9.7	7.4
Endocrine, nutritional and metabolic diseases	627	6.0	6.3	4.9	5.5
Diseases of the digestive system	590	5.1	4.8	5.5	5.2
Injury, poisoning and certain other consequences of external causes	569	5.8	5.9	4.2	5.0
Diseases of the genitourinary system	540	3.3	5.8	5.0	4.8
Diseases of the skin and subcutaneous tissue	499	3.5	3.5	5.3	4.4
Symptoms, signs and abnormal clinical and laboratory findings, not elsewhere classified	416	2.9	3.2	4.3	3.7
Certain infectious and parasitic diseases	174	1.6	1.7	1.4	1.5
Neoplasms	153	0.6	1.7	1.6	1.3
Diseases of the blood and blood-forming organs and certain disorders involving the immune mechanism	63	0.8	0.6	0.4	0.6
Total	11344	100.0	100.0	100.0	100.0

[a] The category Nervous system, sense organs include chapter G and H of ICD-10 classification.

TABLE 3   *Proportion of patients with self reported health problems lasting longer than three months*

	COM		CAM–		CAM+	
	%	95% CI	%	95% CI	%	95% CI
16–30 years	34.9	29.1–40.7	40.1	33.8–46.3	59.9	55.1–64.8
30–65 years	52.9	49.5–56.3	59.0	55.9–62.1	70.7	67.7–73.6
>65 year	73.1	69.5–76.7	73.3	68.9–77.7	77.1	73.8–80.4
Overall	55.2	52.3–58.1	58.9	55.9–61.9	70.2	67.5–73.0

TABLE 4   *Self reported severity of health problems of patients*

Severity	COM		CAM–		CAM+	
	%	95% CI	%	95% CI	%	95% CI
Minor	23.4	21.3–25.6	19.4	17.4–21.4	13.6	12.2–14.9
Moderate	55.5	53.0–57.9	59.4	57.0–61.7	59.7	58.1–61.4
Serious	21.1	19.0–23.2	21.2	19.0–23.5	26.7	24.8–28.7

level minor coded as 0 and levels moderate and serious coded as 1) indicated that severity of problems remained highest in CAM+ after adjusting for gender and age.

Health care utilisation

Health care utilisation of patients was estimated and compared between groups using five variables: 1) the time interval between the present and the last

TABLE 5 *Time to last GP consultation*

Type of patients	Time to last consultation	COM		CAM–		CAM+	
		%	95% CI	%	95% CI	%	95% CI
Acute patients*	2 wk	24.7	21.6–27.8	21.0	18.2–23.7	23.2	20.9–25.4
	2–6 wk	18.3	16.2–20.4	21.0	18.9–23.0	22.2	20.1–24.3
	6 wk–6 mo	27.7	25.6–29.8	30.4	27.8–33.1	31.3	29.0–33.5
	>6 mo	29.3	26.5–32.0	27.6	24.7–30.5	23.3	21.4–25.3
Chronic patients	2 wk	33.4	29.8–36.9	32.2	28.9–35.6	31.5	28.6–34.3
	2–6 wk	27.7	24.8–30.7	27.7	24.5–30.8	28.5	26.5–30.5
	6 wk–6 mo	24.5	21.7–27.3	25.6	23.0–28.2	24.8	22.4–27.3
	>6 mo	14.4	12.0–16.8	14.5	12.6–16.4	15.2	13.7–16.8
Overall*	2 wk	28.5	25.8–31.1	26.2	24.0–28.4	28.0	25.7–30.3
	2–6 wk	22.4	20.5–24.3	24.1	22.1–26.0	25.9	24.3–27.5
	6 wk–6 mo	26.3	24.4–28.3	28.2	26.1–30.3	27.5	25.5–29.5
	>6 mo	22.8	20.7–24.9	21.6	19.6–23.6	18.6	17.2–20.0

* Significant ($P < 0.05$) differences of distributions between patient groups.

encounter with a physician (any physician and for any disease, but excluding dental problems and vaccinations); 2) the number of doctor consultations during the last six months (any physician and for any disease, but without dental problems and vaccinations); 3) the medical discipline of previous treatments for the same health problem (conventional and/or CAM); 4) type of previous usage of health care (GP, specialist, hospitalisation or other therapies); and 5) yearly consultation rate as calculated from billing data of Swiss health insurers.

The distribution of the time intervals between the last and the present consultation was extremely skewed to the left. The results were therefore categorized into quartiles of two weeks, six weeks, six months, and longer than six months. The respective proportions of patients across this classification are given in Table 5. The COM group had significantly the highest proportion of patients having their last consultation more than six months ago. The comparison of medians between groups shows that the time lag between the present and the last consultation was longest in the CAM– group, median = 2.0 months and equal in the other groups (COM and CAM+: median = 1.5 months). Stratification by disease duration revealed significant differences for patients with acute health problems but non-significant differences for patients with chronic diseases.

Significant differences between groups were observed for the number of recent doctor visits. The proportions of patients who saw their doctors more than four times in the last six months were 27% for COM, 28% for CAM– and 33% for CAM+.

Differences between groups COM and CAM+ remained significant after adjusting for gender and age using a multivariate logistic regression model. The proportions of patients not having seen a doctor during the same period were 20%, 19% and 15% for COM, CAM– and CAM+, respectively.

Sixty-two percent of COM patients had previous consultations for the same main health problems. The respective proportions for CAM– and CAM+ were 62% and 76% and proportions differed significantly between COM and CAM+, and CAM– and CAM+.

The majority of COM and CAM– patients were treated previously with conventional medicine only (COM: 79%, CAM– 60%) whereas 33% of CAM+ had solely conventional previous therapies. Forty-five percent of CAM+ patients were treated previously with both conventional and complementary treatments, compared to 26% in CAM– and 14% in COM. Solely CAM as previous treatment was provided for 23% of CAM+ patients, the respective proportions for CAM– and COM were 14% and 7%. All frequencies in this context differed significantly between groups.

CAM+ patients required a greater diversity of ambulatory care than COM patients. No significant differences were seen for hospitalisations. A detailed overview of categories of self-reported health care utilisation during the last six months is given in Table 6.

Consultation rates were calculated based on data of 471 414 consultations documented and reimbursed for study physicians in 2002 and 2003 by Swiss basic health insurers. Consultations are defined in this context as any type of encounter between physicians and patients

TABLE 6   *Type of previous utilization of health care within the past six months*

Type of previous care	COM		CAM–		CAM+	
	%	95% CI	%	95% CI	%	95% CI
GP	62.4	58.2–66.7	70.4*	66.8–73.9	67.1*	64.8–69.4
Specialist	26.4	24.6–28.2	28.2	25.8–30.5	36.5*	33.6–39.5
Other medical services[a]	19.7	17.8–21.6	21.9	20.1–23.7	28.6*	26.9–30.3
Hospitalization	12.9	11.5–14.4	13.8	12.4–15.2	11.2	10.0–12.4
Other[b]	5.4	4.5–6.3	7.0	5.9–8.0	9.9*	8.9–10.9

* Significant ($P < 0.05$) difference to COM group (logistic regression with age and gender as additional cofactors).
[a] Physiotherapy, osteopathy, massage, etc.
[b] Procedures performed by non MD's (healers, etc.).

including face-to-face consultations, telephonic consultations and patient visits. Unadjusted consultation rates per patient were almost equal in the study groups: 4.4 consultations/year in COM, 4.3 in CAM– and 4.4 in CAM+. However, age and gender adjusted rates indicated considerable and significant differences between groups: CAM+: 4.7 (95% CI: 4.5–4.9), CAM–: 4.1 (95% CI: 3.8–4.3) and COM: 3.7 (95% CI: 3.4–4.0).

Discussion

Individual perceptions of health and illness are the main driving forces when patients decide to seek care and start utilising health care resources. Utilisation patterns are therefore not only a direct function of individual morbidity and mortality risks but also interrelated with demographic attributes, coping mechanisms, social status, and cultural background of patients.[9] Furthermore, resource use is also associated with accessibility and quality of available care.[10]

Limited resources imply the need to set priorities for health care utilisation and influence the current debate about the inclusion of CAM in the basic health insurance package. Within this discussion, CAM is being criticized for generating additional and unnecessary resource use and added cost.[11] Thus, the intent of this article is to provide empirical information on utilisation of ambulatory medical services by patients seeking conventional and complementary primary care in relation to their self-rated health status.

Socio-demographic attributes of patients
In accordance with other work we found that CAM patients tend to be younger,[12–14] female,[13–16] and have higher levels of education.[14] In contrast to other research,[12,13,17–22] our study analysed only therapies performed by medical doctors with formal academic training who were providing either conventional or complementary and alternative, CAM, or combined conventional and CAM treatments. Even with these differences, patients' socio-demographic attributes and self-perceived health are consistent with those reported in recent studies conducted in other western countries.[12–16,21,23]

Perceived health status of patients
Perceived health status of patients was based on self-reported subjective assessments that have proven to be valid measures of health in general populations.[24,25] An important finding in this context is that CAM patients rated their main health problems as more severe than did COM patients, although general health assessments were not different between patient groups. Our data therefore provide some evidence that individual morbidity is not directly associated with overall self-rated assessment of health. The differing perceptions of severity of illness may primarily be linked to different frequencies of major symptoms in the three patient populations of the study, but also may be related to different adjustments and coping strategies with disease in patients seeking COM or CAM.[26]

The high proportions for problems of the nervous system and sense organs observed in the CAM+ group are comparable with other European studies.[15,27] This distinct attraction of CAM may be associated with the fact that conventional therapies are not always perceived as effective for these problems. We also observed that patients who were using CAM are characterized by higher disease chronicity.[12,15,21,23]

There is evidence[22,28,29] that patients choose conventional physicians first when dealing with illnesses such as angina pectoris, hypertension, bronchitis and cancer. These findings are consistent with our observations of lower rates for cardio-vascular disorders in CAM+ patients. The high rate of musculo-skeletal and mental disorders found among CAM patients found in certain studies[14,15,20,21,30,31] are less pronounced in our survey. The low number of appointments for screening

and vaccination in CAM+ patients can be explained by persisting reservations and ongoing controversial discussions in complementary medicine with regard to immunization procedures.[32,33]

Health care utilisation

Consistent with other studies,[34,35] our data indicate significant and considerably higher utilisation of outpatient care by CAM+ patients and to a lesser extent by CAM– patients. Billing data confirmed the findings of the field study and indicated that age and gender adjusted consultation rates of certified CAM physicians were 27% higher than in COM physicians. The utilisation patterns for previous medical treatments show that CAM+ patients utilise consistently more conventional and complementary medical care supplied by a wider diversity of providers including GPs, specialists, other medical services and non-medical therapists. In contrast to other work,[13] we observed a considerable proportion of patients who relied completely on CAM, most likely as a result of sampling only a considerable number of patients treated by CAM+ physicians trained in both conventional and complementary medicine.

The facts that the majority of CAM+ patients had already encountered conventional procedures and that 20% of COM-patients sought previous CAM treatments for the same health problems points to substantial multiple utilisation of medical resources in Swiss primary care patients. However, our data provide no information whether this utilization was supplemental or a substitution, although stratification indicated that differences between groups were not necessarily related to higher chronicity in CAM patients.

The dissimilarities between patient populations in our study reflect different preoccupations with health and illness and subsequent health seeking behaviour. Such differences between CAM and COM users are well documented[22,27,31,36] and the observed difference between the assessment of general health and perceived severity of disease may also be seen in this same context. However, the higher use of resources in CAM+ patients despite comparable general health with COM patients may also be interpreted as frequent attender behaviour[37] and inappropriate utilization of resources. Whether this behaviour is prompted by distinct treatment modalities of CAM and/or by socio-behavioural attributes of CAM+ patients cannot be determined with our data. The existence of frequent attenders in primary care is well documented[38,39] and CAM patients appear to be characterised with some recognized frequent attender attributes. These include higher frequencies of psychiatric complaints, chronic conditions, and a greater diversity of used medical resources. However, the fact that CAM users have higher education contrasts with other observations indicating that frequent attendance is also associated with lower levels of education.[9,40]

Utilisation patterns are consistent across different levels of professional qualification for CAM, and utilisation was generally higher in certified CAM physicians than in non-certified CAM physicians. Utilisation may therefore be related to the way CAM is provided, or how the respective quality of care is perceived by patients.

Limitations and strengths

The study incorporated a wide spectrum of primary care practices in order to provide a real world picture of CAM in the setting of Swiss primary care. The data therefore suffer from a number of limitations common to this type of research. These include selection bias, non-representative sampling and effects of confounding variables unaccounted for. Recall bias with reference to previous appointments and treatments may additionally have affected results of self-reported utilisation of health care by patients. It remains impossible to assess indications of differential recall bias with reference to patient groups in our study, although it is known that self-reported resource utilisation tends toward under-reporting.[41] Another limitation is the cross-sectional nature of the survey, which prevents the investigation of cause-effect relationships. The strengths of the study include the availability of billing data from health insurers that provide estimates of validity with reference to patient demographics and resource utilisation. For example, it appears that elderly people were either less willing or unable to participate in the study, consequently average patient-age in the sample was lower than the overall patient population of the participating physicians. In addition, billing data quantified and confirmed the questionnaire-based findings on utilisation patterns. A direct comparison of our data with comparable information that was made available from another large Swiss study performed recently in conventional primary care[42,43] indicated almost identical patterns for general health in COM patients. However, no more other data are available that would allow further comparisons and external validation of our data with reference to overall resource utilisation in Swiss primary care and health status of CAM patients.

The importance of patient perceived health status and self-reported morbidity in analysing utilisation behaviour is controversial.[44] The interpretation of our data was based on the assumption that CAM is delivered and consumed by populations of physicians and patients with strong mutual beliefs on holism, patient centred, and individualized treatment modalities.[36,45] Furthermore, data analysis was based on a behavioural model in which predisposing factors such as beliefs and socio-demographic and behavioural attributes of patients indirectly influence health care use over direct medical needs.[46,47] Self-perceived health

of patients was therefore regarded as an intrinsic component of providing and consuming care within a specific treatment philosophy. It was therefore not deemed appropriate to model resource utilisation as a function of CAM or COM by additionally controlling for self-perceived health.

Additional research within the scope of this project will provide more information on these issues, including patient health as seen by physicians and fulfilment of patient expectations. Economic analyses will investigate the relationships between use of resources, patient satisfaction, and treatment cost.

Conclusions

Our study confirms that CAM patients require more consultations with primary care physicians and use more diverse outpatient medical services compared to COM patients. CAM patients are younger, more likely to be female, and psychological or neurological complaints are more often the reason for a consultation. Furthermore, CAM patients see their main health problems as more severe than COM patients, although self-perceived general health levels appear to be equal. Our study supports the hypothesis of differences in socio-demographic and behavioural attributes of patients seeking COM or CAM, and the study provides empirical evidence that CAM users are requiring more medical services in primary care than COM users.

Acknowledgements

Declaration

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