



Research paper

What is offered and treated by non-medical complementary therapists in Switzerland: Results from a national web survey

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ABSTRACT

Introduction: Complementary therapy is implemented in Switzerland on a legal basis (i.e. by constitution) and can be reimbursed if offered either by physicians or by private health insurance coverage from non-medical therapists. This survey wanted to explore different types of interventions across Switzerland and to identify the most relevant complaints treated by therapists, their job satisfaction and satisfaction concerning the collaboration with medical doctors.

Methods: This cross sectional study of therapists registered in the Experience Medicine Register (EMR) was conducted as online survey in 2017 in Switzerland in three different languages. Therapists first selected one possible treatment option as their most often used intervention for their patients. Afterwards, they indicated the complaints treated with this kind of intervention. Data were analysed descriptively.

Results: Of 17,647 initially invited therapists 3942 responded (22.3%) and data from 3638 therapists could be analysed. Therapists were often females in their own practice and they had high job satisfaction, but were less satisfied with the collaboration with medical doctors. Therapists stated that they most often provide classical massage, craniosacral therapy, Traditional Chinese Medicine, naturopathic practices and medical massage. French speaking therapists stated that they more often provided osteopathy and manual lymphatic drainage but less often craniosacral therapy compared with the German speaking therapists. Headache and back pain were named as the most common treated complaints.

Conclusions: Therapies used by non-medical complementary therapists varied across the different regions in Switzerland. However, we found no regional differences in the complaints being treated by therapists.

1. Introduction

Complementary medicine was implemented in the Swiss constitution [1] after public voting [2] and health policy makers made efforts to make complementary therapies available for the public. Physicians can actually offer five different treatments in Switzerland (acupuncture, anthroposophic medicine, Traditional Chinese Medicine (TCM), homeopathy, and phytomedicine) within the basic health insurance [3,4]. In addition to that, in Switzerland, non-medical complementary therapists can also offer their service to patients. About 27,000 complementary therapists are registered in Switzerland, which is a pre-requisite for the reimbursement of their service. More than 200 different

types of non-medical complementary treatments are registered and therapists with an accreditation in a registry (like Experience Medicine Register EMR) can bill patients for such treatments in a standardised way. This is either reimbursed within a supplementary private health insurance or is paid out of pocket.

Despite the fact that around 200 different interventions are available in Switzerland, about 20 of them cover most of the reimbursed treatments from the supplementary private health insurance (health insurance company SWICA, personal communication). On a European level, acupuncture is the most prevalent treatment with a ratio of about 21 therapists per 100.000 inhabitants [5]. Also, in Switzerland acupuncture is often used and about 60% of the general practitioners refer

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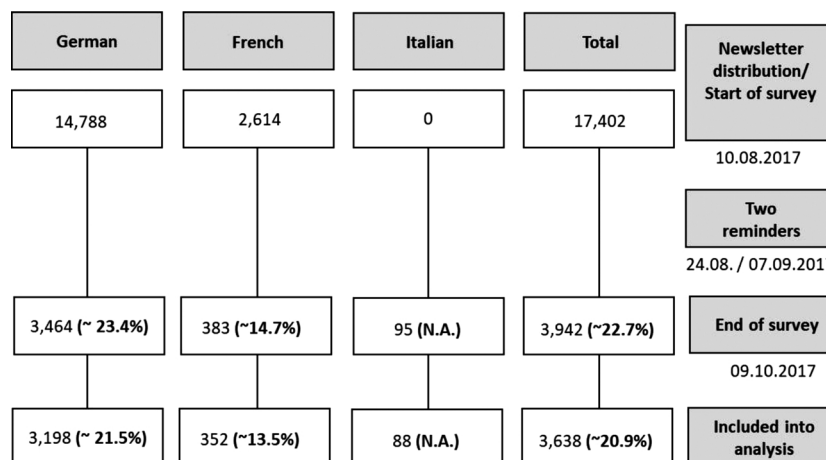


Fig. 1. Flowchart of recruitment stratified by language (response rate and number of included therapists in the analysis).

Schematic illustration of the study flow. In total, 3942 therapists started the survey, however, only 3638 were analysed since other participants did not fulfill the inclusion criteria.

patients to acupuncture [6]. Homeopathy (11/100.000), herbal medicine (6.5/100.000), naturopathy (5/100.000) also account for many consultations on a European level whereas manual therapies including osteopathy (1.2/100.000) and anthroposophic medicine (1/100.000) and others are less often used [5,6]. The professional interplay between regular medical care (i.e. general practitioners) and complementary treatments have not been studied well so far and upcoming studies might help to understand this interprofessional collaboration better.

From a consumer perspective there is a regional variability in the use of complementary therapy across Switzerland and also patient characteristics contribute to such user patterns. Results from the Swiss Health Survey showed a higher utilisation of osteopathy especially in the French part of Switzerland compared to other parts of the country [7]. Patients with chronic diseases, poor health status and an additional supplemental health insurance more often use complementary interventions in Switzerland [8]. According to an analysis that compared data from 2007 and 2012 there was an increase in the use of homeopathy, osteopathy and herbal medicine but other interventions were used less often [8].

The use of complementary therapies also depends on the complaints, which patients experience. A recent survey across Europe showed that neck and back pain, cancer, and digestive symptoms are the most important reasons to consult a complementary therapy provider [9]. Non-medical complementary therapists in Germany reported treating mainly general or unspecific complaints, musculoskeletal complaints and psychological disorders [10].

To get a better insight into the professional situation of complementary therapists and their use of treatments in Switzerland we aimed to explore the variation of the different interventions across the country and to identify the most relevantly treated medical complaints. In addition, we wanted to investigate work related job satisfaction of therapists and the satisfaction concerning the cooperation with medical practitioners.

2. Methods

2.1. Selection and description of therapists

All therapists who had been registered for at least 12 months in the Experience Medicine Register (EMR) for one of the most frequently used 20 treatments according to SWICA customer statistics were included in the study (the list of included treatments can be found in Appendix A). A total of 17,647 therapists (14,788 with German language, 2614 with French language) fulfilled this inclusion criteria and

where invited to participate in the online-survey. The EMR includes the information about preferred language (only German and French), however we also made the survey available in Italian. The higher number of German speaking therapists reflects the structure of the members in the database. Therapists who reported less than 10 h practicing time per week in the survey were excluded from the analysis.

All participating therapists were informed about the study aim before starting to fill in their responses. All data was collected in an anonymous way and no identification of therapists is possible since data from register is only available by EMR and survey data is only available by the Institute for Complementary and Integrative Medicine (IKI). The study protocol and the survey questions were sent to the cantonal ethics committee of Zurich (Req-2017-00136) and evaluated as not being under the scope of the Swiss human research law.

2.2. Study design

This cross-sectional survey was performed in Switzerland. The quantitative data was collected with an online survey which was distributed by email to therapists on the EMR registry, who offer one of the 20 most prevalent complementary interventions in Switzerland (see list in Appendix A). An email sent from the EMR informed the therapists about the study and encouraged them to participate. The email enclosed a link to the online survey, and the data was stored by an external server at the University Hospital Zurich. The study was announced in advance by the EMR through their newsletters in order to increase the response rate later on. Two reminder-emails were sent (two and four weeks after the initial email) to all registered therapists. The survey was accessible for a total of two months. A schematic illustration of the study design is displayed in Fig. 1.

2.3. Procedure and survey

The anonymous online-survey was created with the open source online-survey tool soSci Survey (soSci Survey GmbH, Munich, Germany). The survey was available in three languages (German, French, Italian), each representing one geographical part of Switzerland. Participants could freely choose their language on the entry page. The survey consisted of three sections.

Section 1: The questions in the first section checked whether participants matched the inclusion criteria (>12 months registered at EMR, office hours >10 h per week, >12 months working in practice). Participants not matching those criteria could not proceed with the survey.

Section 2: The second section consisted of questions about the therapists' working environment and clients. We asked about the work site (i.e. agglomeration, urban, rural), the typical patients in terms of age group (i.e. children, adolescents, young adolescents, adults, elderly) and the type of disorders (acute, chronic, both). The duration of the treatment was examined with two questions: mean duration of the first treatment and mean duration of the follow-up treatments. We also assessed the therapists most frequently used intervention and the most prevalent complaints of the typical patients which were treated with the respective intervention. In total, therapists had a comprehensive list of 91 different complaints, which could be selected by respondents from this list. This list was generated from the International Classification of Primary Care (ICPC) [11,12].

In the analysis we grouped redundant data from the list of complaints into larger clusters in order to generate information about the prevalence of these comprehensive symptom domains. In the first step, this list of complaints was grouped based on medical reasoning (i.e. related disorders like stroke and paralysis were combined) and high correlations between complaints, which might result in these complaints being summarised into a broader cluster (like musculoskeletal disorders with complaints like osteoporosis, rheumatoid arthritis, fibromyalgia etc.). We generated a list of 25 clusters of complaints with 1 to 8 single complaints. In the second step we calculated the mean prevalence across all complaints in one cluster, resulting in one value for the prevalence of this domain in the therapist population.

Additionally, satisfaction concerning the collaboration with the physicians (numeric rating scale (NRS), 0–10) and job satisfaction (first year of activity, currently and in five years; NRS, 0–10) were assessed.

Section 3: In the last section, socio-demographic information was obtained, including sex, age, education, and level of employment of the therapists (i.e. fulltime/part-time employed, self-employed).

2.4. Analysis

Statistical analysis of the data was performed with the software SPSS Version 23 [13] and R (Version 3.5.1) [14]. For the analysis, data was stratified according to the language of the therapists. For the description of socio-demographic information, satisfaction, interventions and complaints we used descriptive statistics (frequencies and percentages for categorical variables, mean, standard deviation and median for continuous variables).

3. Results

3.1. Sample description

Of the 17,402 invited complementary therapists, 3942 started the survey. Out of those, 304 were excluded due to incomplete data about type of treatment the therapists provided, business hours with less than 10 h per week or a working activity as therapist in own practice with less than 12 months. The data of 3638 participants (3198 using German language, 352 French, 88 Italian) was analysed in a descriptive way (Table 1). Interestingly the gender of the therapists varied across language regions with most female therapists communicating in German (84.2%; $n = 2692$) and fewer females were French (71.9%; $n = 253$) or Italian speaking therapists (63.6% ($n = 56$)). In total, the mean age was 51.1 (± 26.4) years and 91.1% ($n = 3332$) of the therapists were self-employed. On average, the therapists worked for 14.0 years (± 7.8) with a mean of 25.5 office hours (± 11.0) per week. The mean duration of the first treatment was reported to be 73.8 (± 21.6) min (mode 90 min), whereas the duration of the following treatment was around one hour (58.1 \pm 14.5 min).

3.2. Job satisfaction and satisfaction with professional cooperation

The general job satisfaction of the therapists was high with a mean

of 7.3 (± 2.3) in the first year of their work as therapists (Table 2). The current job satisfaction was even higher with a mean of 8.9 (± 1.3), as well as the expected job satisfaction with work in five years with a mean of 8.9 (± 1.4). However, the satisfaction with the cooperation with physicians was rather low with 4.4 (± 2.7) with a considerable variation between therapists.

3.3. Treatments

The type of therapeutic treatments stratified by therapists' language is presented in Table 3. Within the total sample, classical massage was the most frequently mentioned treatment by therapists with 16.1% ($n = 586$), followed by craniosacral therapy (8.9%, $n = 325$) and Traditional Chinese Medicine (TCM) treatments (8.2%, $n = 298$). The least often mentioned treatments were acupressure (1.2%, $n = 42$), Western phytotherapy (0.5%, $n = 17$), and polarity (0.2%, $n = 6$).

The comparison of the therapeutic treatments across languages showed considerable variation. Classical massage was the most frequently offered treatment by German speaking therapists (16.2%, $n = 519$) whereas osteopathy/etiopathy was the most frequently offered by French speaking therapist (23.3%; $n = 82$). For Italian speaking therapists, medical massage was most prevalent (13.6%; $n = 12$). While craniosacral therapy ranked second for German speaking therapists (9.8%, $n = 315$), similar to French speaking therapists (16.8%, $n = 59$), only 0.6% ($n = 2$) of the Italian speaking therapists considered craniosacral therapy as their major treatment. Acupunct(ure)-massage was mentioned by 6.6% ($n = 212$) of the German speaking therapists (8th rank), while none of the French or Italian speaking therapists used this treatment.

3.4. Medical complaints

As presented in Table 4, most of the therapists commonly treat patients with both, chronic and acute complaints (63.6%, $n = 3211$), whereas 30.9% ($n = 1123$) mostly deal with chronic patients and only 5.4% ($n = 197$) work with acute ill patients. The most frequently treated complaint was headache/migraine, followed by neck-/back pain with 90.0% and stress with 76.4%. These findings are presented in the Appendix B.

These complaints were grouped into 25 clusters of complaints and Table 5 shows the findings about the average percentage of complaints in each cluster. Again, headache, back pain, and mental disorders are commonly treated domains. But also, complaints of women during pregnancy and neuralgia in the face are often treated problems. Overall there was no clear difference between language regions. Information about the grouping of complaints is shown in Appendix C.

4. Discussion

Our study is the first nation-wide survey in Switzerland investigating a large cohort of non-medical complementary therapists and indicated that such therapists offer a huge variability of treatment options. The first ten most prevalent treatments are offered by at least 5% of the therapists each. According to our findings, the therapists usually spend 90 min for the first session and 60 min for follow-up consultations. According to our findings, the therapists have a focus on treating pain and mental health.

Our survey showed regional variation within Switzerland in the offered interventions of non-medical complementary therapists. This finding is in line with the considerable differences in healthcare practice across regions, hospitals and physician practices for almost every condition and procedure around the world [15] and in Switzerland [16–18].

Many factors can explain variations in healthcare [19]. First, factors related to geographical regions might affect the demand for complementary therapies, such as patients' attitudes towards these

Table 1
Descriptive overview of the sample of therapists stratified by therapists' language.

	German (n = 3198) mean (SD); median; %	French (n = 352) mean (SD); median; %	Italian (n = 88) mean (SD); median; %	Total (n = 3638) mean (SD); median; %
Age	52.9 (26.7); 54.0	50.2 (28.3); 52.0	50.2 (27.5); 53.0	51.1 (26.4); 53.0
Sex				
female	84.2% (2692)	71.9% (253)	63.6% (56)	82.5% (3001)
male	15.8% (506)	28.1% (99)	36.4% (32)	17.5% (637)
Employment				
self-employed	92.0% (2937)	91.7% (320)	89.5% (77)	91.9% (3332)
employed	3.8% (121)	5.4% (19)	3.5% (3)	3.9% (143)
both	4.2% (135)	2.9% (10)	7.0% (6)	4.2% (151)
Duration of activity (ys)	13.9 (7.7); 13.0	14.5 (8.7); 13.0	13.3 (8.0); 12.5	14.0 (7.8); 13.0
Office hours per week (h)	25.3 (11.0); 24.0	26.7 (10.8); 25.0	29.0 (12.0); 30.0	25.5 (11.0); 24.0
Duration first consultation (min)	74.9 (21.7); 75.0	63.7 (18.0); 60.0	72.3 (21.1); 70.0	73.8 (21.6); 70.0
Duration follow-up consultation (min)	58.3 (13.8); 60.0	55.7 (21.1); 60.0	58.1 (12.4); 60.0	58.1 (14.5); 60.0

Table 2
Job satisfaction of the therapists stratified by therapists' language.

	German mean (SD); median	French mean (SD); median	Italian mean (SD); median	Total mean (SD); median
Job satisfaction in the first year (NRS 0-10)	7.2 (2.4); 8.0	7.7 (2.2); 8.0	7.0 (2.6); 7.0	7.3 (2.3); 8.0
Current job satisfaction (NRS 0-10)	8.9 (1.3); 9.0	9 (1.3); 9.0	8.6 (1.7); 9.0	8.9 (1.3); 9.0
Expected job satisfaction in five years (NRS 0-10)	8.9 (1.4); 9.0	9 (1.5); 10.0	8.8 (1.3); 9.0	8.9 (1.4); 9.0
Satisfaction of cooperation with physicians (NRS 0-10)	4.3 (2.7); 5.0	4.7 (2.7); 5.0	4.9 (2.6); 5.0	4.4 (2.7); 5.0

Table 3
Frequency of therapists' training stratified by therapists' language.

	German (n=3,198) % (n)	French (n=352) % (n)	Italian (n=88) % (n)	Total (n=3,638) % (n)
Classical massage	16.2 (519)	16.8 (59)	9.1 (8)	16.1 (586)
Craniosacral therapy	9.8 (315)	0.6 (2)	9.1 (8)	8.9 (325)
Traditional chinese medicine (TCM)	8.1 (259)	9.1 (32)	8 (7)	8.2 (298)
Naturopathic practices (NHP)	8.3 (265)	3.4 (12)	9.1 (8)	7.8 (285)
Medical massage	7.9 (254)	3.7 (13)	13.6 (12)	7.7 (279)
Shiatsu	7.5 (240)	7.1 (25)	12.5 (11)	7.6 (276)
Kinesiology	7.7 (246)	7.1 (25)	1.1 (1)	7.6 (272)
Acupunct(ure)-massage	6.6 (212)	0 (0)	0 (0)	5.8 (195)
Classical homeopathy	5.8 (186)	1.7 (6)	3.4 (3)	5.4 (195)
Osteopathy/etiopathy	2.7 (85)	23.3 (82)	5.7 (5)	4.7 (172)
Foot reflexology	3.9 (126)	2.6 (9)	11.4 (10)	4 (145)
Respiratory therapy	3.8 (122)	0.9 (3)	0 (0)	3.4 (125)
Manual lymph drainage	2.1 (66)	12.5 (44)	8 (7)	3.2 (117)
Reflexology	1.8 (58)	8 (28)	4.5 (4)	2.5 (90)
Feldenkrais method	2.3 (73)	0.9 (3)	1.1 (1)	2.1 (77)
Bioresonance therapy	1.8 (58)	1.7 (6)	2.3 (2)	1.8 (66)
Painting therapy	1.6 (52)	0.3 (1)	0 (0)	1.5 (53)
Acupressure	1.3 (41)	0.3 (1)	0 (0)	1.2 (42)
Western phytotherapy	0.5 (15)	0.3 (1)	1.1 (1)	0.5 (17)
Polarity	0.2 (6)	0 (0)	0 (0)	0.2 (6)

The strength of the colour represents the prevalence of the type of treatment. White colour corresponds to the lowest and dark red to the highest prevalence.

treatments, cultural-related factors, the comorbidity of patients, or socio-economic factors [20]. Second, differences in the supply of complementary therapies can also exist. These differences are based on the availability of healthcare providers, the absence of a standard training

programme for healthcare professionals, the lack of standardisation of CAM practitioners and their practice standards [20], the scarcity of rigorous clinical guidelines, or the reimbursement and the government policies. In this line, complementary therapies may be considered as a

Table 4
Type of patients' complaints treated by therapists (stratified by language region).

	German % (n)	French % (n)	Italian % (n)	Total % (n)
Both equally often	63.0 (2012)	65.3 (230)	79.3 (69)	63.6 (3211)
Patients with chronic complaints	31.6 (1009)	27.8 (98)	18.4 (16)	30.9 (1123)
Patients with acute complaints	5.4 (171)	6.8 (24)	2.3 (2)	5.4 (197)

Table 5
Average percentage of complaints in one cluster of complaints stratified for the language of therapists.

Number	Complaint	Total avg. % (n = 3638)	German avg. % (n = 3198)	French avg. % (n = 352)	Italian avg. % (n = 88)
11	Headache	90.7%	91.1%	88.1%	86.4%
7	Backpain	90.0%	90.4%	87.8%	84.1%
2	Mental health	42.9%	42.7%	44.7%	42.4%
24	Pregnancy	36.1%	35.3%	42.6%	38.6%
5	Face neuralgia and tinnitus	34.7%	34.2%	39.5%	35.5%
23	Urology	33.6%	34.0%	29.5%	32.4%
12	Sensitivity problems	32.1%	32.5%	31.8%	20.5%
25	Sexual dysfunction	29.9%	29.3%	34.4%	32.3%
8	Rheumatic disorders	29.7%	28.9%	35.7%	35.4%
4	Gastrointestinal	27.7%	26.3%	38.7%	33.4%
3	Allergy	25.0%	25.2%	22.7%	26.9%
15	Cancer	24.4%	24.9%	21.6%	20.5%
16	Coronary heart disease	20.1%	20.5%	17.4%	17.5%
1	Infectious diseases	19.6%	19.5%	20.5%	17.8%
26	Children	17.7%	17.4%	19.6%	19.2%
10	Skin	16.6%	16.8%	14.8%	18.4%
20	Anaemia	15.6%	15.4%	17.3%	17.0%
18	Metabolic disorders	13.6%	13.5%	14.3%	17.0%
13	Neurological disorders	11.4%	11.3%	11.8%	12.9%
6	Obesity	11.3%	10.8%	14.9%	17.0%
14	Stroke	10.2%	10.0%	12.6%	9.7%
9	COPD	9.6%	9.8%	6.8%	12.5%
19	Addiction	8.6%	8.2%	11.1%	12.9%
17	Eye and ear	8.3%	8.4%	7.7%	8.0%
22	Blood / Lymph	7.9%	7.7%	9.4%	6.8%

good example of 'supply-sensitive care', as the frequency of its use might depend on the local availability of healthcare providers. However, this explanation is difficult to check in the Swiss context as the registration at EMR is not compulsory, and other registers can also be used to become reimbursed as a therapist.

An important point to mention is that variation in clinical practice is not always inappropriate as some variation is, in fact, adequate. An example of adequate variation may be due to the consideration of the patients' values and preferences. This survey did not aim to identify 'unwarranted variation', that is, a practice variation that is not explained by the illness, patient risk factors or patient preferences [15,21]. Therefore, it is yet to be determined if the heterogeneity in practices in non-medical complementary therapy in Switzerland is unwarranted or not.

Our study confirms earlier findings with patients suffering from chronic low back pain showing that osteopathy is the most often used complementary treatment in the French speaking part of Switzerland [22]. Dubois et al. found that about half of the patients received osteopathic treatment for their back pain.

According to our findings, the complaints treated by non-medical complementary therapists encompass chronic disorders and acute disorders equally with a strong focus on pain and mental health. Earlier studies from Switzerland emphasised that especially patients with a longer treatment history, a longer duration of complaints and non-responsiveness to conventional medical treatment might use complementary therapies [23,24]. We have no data on the non-responsiveness to conventional medical treatment since we did not ask the therapist about the motives of patients to seek their treatment. The most prevalent complaints mentioned by the therapists in our study are musculoskeletal disorders, pain and mental health disorders, which support the findings about reasons for CAM use from Busato et al, 2006.

The non-medical complementary therapists in our study were in general highly satisfied with their job. A study from Germany comparing general practitioners with or without CAM use found a similar job satisfaction between both groups [25]. However, the job satisfaction was much lower compared to a similar sample of GPs in Switzerland [26]. Since no predictors for job satisfaction of complementary therapist in Switzerland have been published we searched for studies about GPs and factors associated with high job satisfaction. This data showed, that autonomy and variation in work tasks is associated with high job satisfaction [27]. For general practitioners it was found that less working hours per week are associated with higher job satisfaction, which supports our findings [28] in our sample that is mainly working part time. As other drivers for the high job satisfaction of therapists in our sample, the lower number of patients per day and the large freedom in working tasks based on the own set agenda can be named. According to our findings, the mean duration of a regular consultation is about 60 min which considerably cuts down the number of patients seen per day by Swiss therapists. Also, the high number of females in our sample may contribute to the high job satisfaction. Female gender in itself might contribute to the overall job satisfaction across different jobs, which was in parts explained by a lower expectation of females towards their job in general [29]. In summary the working context of the therapist might be characterised by criteria for low job dissatisfaction (i.e. negative working conditions, regulations, supervision) and criteria for high job satisfaction (i.e. recognition, salary, personal growth) according to the two factor theory by Frederick Herzberg [30]. Most of the therapists work in their own practice and the impact of the team is not that relevant neither for their satisfaction nor their dissatisfaction.

A positive job satisfaction can also be regarded as a positive starting point for a therapeutic encounter. Studies on medical personal found an association between job satisfaction of the service provider and the satisfaction with the care of the patients [31,32]. Based on our findings, we can hypothesise that these therapists face in general a rather low risk of burn out, which is often driven by low job satisfaction [33].

The therapists indicated a moderate satisfaction with the collaboration with physicians. A closer look for the distribution of this data showed that many therapists rated this item with 5 on a 10-point scale. This might be interpreted as "this is not relevant for me in my work". From a health services perspective there might be a need for care models, that build a bridge between medical care and treatments by complementary therapists. However, there might be beliefs on both sides that are barriers for a closer collaboration. There are studies that indicate that GPs and other medical professions have more favourable attitudes towards complementary care if they are, for example, of younger age, have positive own experiences, practice in an urban area [34,35]. There are many medical practitioners who would refer patients to a therapist. In addition, the access to both health care professions might play a role: Since medical practitioners and therapists can be directly accessed by patients in Switzerland the collaboration of both professions might have a low impact from a patients' perspective. Results from other countries showed that patients often use CAM in parallel to regular medical care [36], but it is also common not to disclose CAM treatment to medical practitioners [37]. Our results indicate that referral practice between both health care sectors is underdeveloped so

far, which is a finding already reported in other countries [38].

4.1. Strengths and limitations

Our survey had a response rate of more than 20%, which is a good result for an anonymous web-based survey without any reimbursement, but self-selection bias might be present (i.e. therapists with less duties have more time to contribute). Some subsamples are quite small which is caused by the fact that some regions or interventions strategies are not that often represented in the EMR registry and registration at EMR is not compulsory. The generalisability of the results is limited by these two aspects (non-response and overrepresentation of German speaking therapists). As a reader one might assume that it is a weakness to force therapists to select one specific treatment they use most often since they might be trained for more than one therapy. However, the number of therapists having only one therapy registered is about 70%. This is a large nation-wide study on an important group of health care providers in Switzerland using a widespread register of these therapists. The combination of different medical complaints was necessary to allow a better overview about complex information, but as each summary approach it is based on assumptions and has its limitations. Therefore, we present in Appendix D the original data about prevalence of treated complaints across regions with all complaints before clustering. The complaints are grouped in this presentation according to the clusters of the analyses.

4.2. Conclusion

The type of therapy used by non-medical complementary therapists varied across the different regions in Switzerland. However, we found no regional difference in the complaints being treated by therapists.

Appendix A. List of included kind of therapists (according to the top 20 number of registered therapists which was cross checked with SWICA reimbursements)

Acupressure; Acupunct(ure)-massage; Bioresonance therapy; Classical homeopathy; Classical massage; Craniosacral therapy; Feldenkrais method; Foot reflexology; Kinesiology; Manual lymph drainage; Medical massage; Naturopathic practices; Osteopathy/etiopathy; Painting therapy; Reflexology; Respiratory therapy; Shiatsu; Traditional chinese medicine (TCM); Western phytotherapy; Polarity.

Appendix B. Prevalence of 91 complaints in descending order of percentage. The percentage represents the percentage of therapists treating this disease and does neither reflect the prevalence in the patient population nor the prevalence in the community

Name	Number	%	Cluster
Neurologie: Kopfschmerzen / Migräne	41	90.7%	12
Bewegungsapparat: Nacken- / Rückenschmerzen	14	90.0%	8
Häufige Beschwerden Liste: Stress / Nervosität	4	76.4%	2
Bewegungsapparat: Allgemeine Gelenkschmerzen	15	66.9%	9
Verdauungssystem: Verdauungsstörungen (Durchfall, Verstopfung, Blähungen)	22	65.8%	4
Häufige Beschwerden Liste: Schlafstörungen	5	63.1%	2
Psyche: Depressive Störungen	35	57.8%	2
Psyche: Burnout	37	57.5%	2
Häufige Beschwerden Liste: Schwäche / allgemeine Müdigkeit	3	54.2%	2
Genitale/ Brust: Prämenstruelle / menstruelle Beschwerden	78	53.4%	26
Augen und Ohren: Tinnitus / Hörsturz	56	52.9%	6
Schwangerschaft, Geburt, Familienplanung: Schwangerschaftsbegleitung	76	50.6%	25
Genitale/ Brust: Menopausale Beschwerden (z.B. Hitzewallungen)	79	48.1%	26
Urologie: Blasenbeschwerden	73	45.2%	24
Bewegungsapparat: Arthrose	16	41.1%	9
Psyche: Angststörungen und Phobien	36	40.7%	2
Kinder: Unruhiges Kind / ADHS	85	38.0%	27
Verdauungssystem: Reizdarmsyndrom	23	37.2%	4
Häufige Beschwerden Liste: Schwindel	10	36.4%	6
Herz-Kreislauf: Hoher Blutdruck	54	35.7%	17
Schwangerschaft, Geburt, Familienplanung: Kinderwunsch	75	35.3%	25
Atmungsorgane: Asthma	29	32.8%	3
Neurologie: Empfindungsstörungen / Missempfindungen	42	32.1%	13
Bewegungsapparat: Fibromyalgie	20	30.8%	9
Häufige Beschwerden Liste: Allergien / Heuschnupfen	6	29.7%	3

Consent for publication

All authors approved this manuscript for publication.

Availability of data and material

Access to data sets will be granted individually upon a reasonable request.

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Declaration of Competing Interest

The authors do not have any conflict of interest to declare. SWICA did not have any influence on the analysis and interpretation of findings.

Authors' contributions

JB and SM drafted the manuscript and analysed the data. JB and CW developed the study protocol and interpreted the data. All authors read, revised and approved the final version of this manuscript.

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Genitale/ Brust: Unterbauch- / Unterleibsbeschwerden	81	28.2%	26
Haut: Hautausschläge	32	28.1%	11
Häufige Beschwerden Liste: Bauchschmerzen	8	27.6%	4
Bewegungsapparat: Kiefergelenkschmerzen	21	27.0%	6
Herz-Kreislauf: Herzschmerzen / Druck oder Engegefühl in der Brust	51	25.4%	17
Bösartige Neubildungen: ja	50	24.4%	16
Häufige Beschwerden Liste: Infektanfälligkeit	2	24.3%	1
Kinder: Dreimonatskoliken	86	23.8%	27
Neurologie: Neuralgien	48	22.6%	6
Schwangerschaft, Geburt, Familienplanung: Stillbeschwerden oder Beschwerden nach der Geburt	77	22.4%	25
Urologie: Nierenbeschwerden	74	21.9%	24
Verdauungssystem: Sodbrennen	25	21.2%	4
Kinder: Bettnässen / Stuhlinkontinenz	87	21.1%	27
Bewegungsapparat: Rheumatoide Arthritis	18	20.9%	9
Verdauungssystem: Chronisch entzündliche Darmerkrankung	24	20.0%	4
Augen und Ohren: Ohrenschmerzen	57	17.4%	1
Herz-Kreislauf: Herzrhythmusstörungen	53	17.3%	17
Psyche: Somatisierungsstörungen / Hypochondrie	38	17.2%	2
Neurologie: Multiple Sklerose	45	17.2%	14
Häufige Beschwerden Liste: Grippe / Erkältung / Infektionen der oberen Luftwege	1	17.0%	1
Herz-Kreislauf: Niedriger Blutdruck	55	17.0%	17
Häufige Beschwerden Liste: Lebensstil im Rahmen einer Erkrankung inkl. Ernährung	12	16.1%	7
Haut: Juckreiz	31	15.9%	11
Haut: Psoriasis	33	15.8%	11
Hämatologie/Immunologie: Anämie (Blutarmut)	70	15.6%	21
Kinder: Mittelohrentzündung	90	15.6%	27
Stoffwechsel: Hypo- / Hyperthyreose	64	15.5%	19
Haut: Überempfindlichkeiten der Haut inkl. Schmerzen	30	15.1%	11
Stoffwechsel: Diabetes mellitus	63	13.7%	19
Neurologie: Folgen von Schlaganfall	49	12.8%	15
Häufige Beschwerden Liste: Nahrungsmittelsensitivitäten (Gluten etc.)	7	12.5%	3
Verdauungssystem: Gastritis	26	12.3%	4
Suchterkrankungen: Tabakabhängigkeit	66	11.8%	20
Stoffwechsel: Erhöhte Blutfettwerte	62	11.7%	19
Kinder: Zahnen	84	11.5%	27
Psyche: Essstörungen (Anorexie, Bulimie)	39	10.8%	2
Augen und Ohren: Trockenes Auge	61	10.6%	18
Genitale/ Brust: Beschwerden der Brust	82	10.1%	26
Bewegungsapparat: Osteoporose	17	10.1%	9
Genitale/ Brust: Sexuelle Funktionsstörungen	80	9.8%	26
Atmungsorgane: Chronisch obstruktive Lungenerkrankung (COPD)	28	9.6%	10
Verdauungssystem: Lebererkrankungen	27	9.5%	4
Neurologie: Morbus Parkinson	46	8.5%	14
Neurologie: Krampfanfälle / neurologische Anfälle	43	8.4%	14
Haut: Warzen	34	8.2%	11
Bewegungsapparat: Gicht	19	8.2%	9
Psyche: Stammeln, Stottern, Tic	40	7.9%	2
Hämatologie/Immunologie: Andere Blut- / Lymph- / Milzkrankungen	72	7.9%	23
Neurologie: Lähmungen	44	7.6%	15
Augen und Ohren: Einschränkungen der Sehschärfe	58	7.5%	18
Kinder: Mandelentzündung	91	7.5%	27
Suchterkrankungen: Alkoholabhängigkeit	65	7.3%	20
Augen und Ohren: Erhöhter Augeninnendruck (Glaukom)	60	6.9%	18
Suchterkrankungen: Medikamentenabhängigkeit	67	6.6%	20
Häufige Beschwerden Liste: Adipositas	11	6.5%	7
Kinder: Fieber bei Kindern	88	6.3%	27
Herz-Kreislauf: Herzinsuffizienz	52	5.5%	17
Kinder: Kinderkrankheiten (Masern, Windpocken etc.)	89	4.0%	27
Neurologie: Demenz	47	3.8%	14
Suchterkrankungen: Drogenabhängigkeit	68	3.6%	20
Augen und Ohren: Schielen	59	3.2%	18
Häufige Beschwerden Liste: Zahnbeschwerden	13	3.2%	6
Suchterkrankungen: Internet- und Spielsucht	69	2.4%	20
Häufige Beschwerden Liste: Fieber unklaren Ursprungs	9	1.8%	5
Genitale/ Brust: Geschlechtskrankheiten	83	1.2%	26
Hämatologie/Immunologie: HIV-Infektion / Aids	71	1.2%	22

Appendix C. Clustering of complaints (total sample)

Beschwerde	Nummer	Häufigkeit in %	Häufigkeit MW %	Beschwerden-cluster
Häufige Beschwerden Liste: Grippe / Erkältung / Infektionen der oberen Luftwege	1	17.0%	19.6%	1
Häufige Beschwerden Liste: Infektanfälligkeit	2	24%		1
Augen und Ohren: Ohrenschmerzen	57	17.4%		1
Häufige Beschwerden Liste: Schwäche / allgemeine Müdigkeit	3	54.2%	42.9%	2
Häufige Beschwerden Liste: Stress / Nervosität	4	76.4%		2
Häufige Beschwerden Liste: Schlafstörungen	5	63.1%		2
Psyche: Depressive Störungen	35	57.8%		2

Psyche: Angststörungen und Phobien	36	40.7%		2
Psyche: Burnout	37	57.5%		2
Psyche: Somatisierungsstörungen / Hypochondrie	38	17.2%		2
Psyche: Essstörungen (Anorexie, Bulimie)	39	10.8%		2
Psyche: Stimmeln, Stottern, Tic	40	7.9%		2
Häufige Beschwerden Liste: Allergien / Heuschnupfen	6	29.7%	25.0%	3
Häufige Beschwerden Liste: Nahrungsmittelsensitivitäten (Gluten etc.)	7	12.5%		3
Atmungsorgane: Asthma	29	32.8%		3
Häufige Beschwerden Liste: Bauchschmerzen	8	27.6%	27.7%	4
Verdauungssystem: Verdauungsstörungen (Durchfall, Verstopfung, Blähungen)	22	65.8%		4
Verdauungssystem: Reizdarmsyndrom	23	37.2%		4
Verdauungssystem: Chronisch entzündliche Darmerkrankung	24	20.0%		4
Verdauungssystem: Sodbrennen	25	21.2%		4
Verdauungssystem: Gastritis	26	12.3%		4
Verdauungssystem: Lebererkrankungen	27	9.5%		4
Häufige Beschwerden Liste: Schwindel	10	36.4%	34.7%	5
Bewegungsapparat: Kiefergelenkschmerzen	21	27.0%		5
Neurologie: Neuralgien	48	22.6%		5
Augen und Ohren: Tinnitus / Hörsturz	56	52.9%		5
Häufige Beschwerden Liste: Adipositas	11	6.5%	11.3%	6
Häufige Beschwerden Liste: Lebensstil im Rahmen einer Erkrankung inkl. Ernährung	12	16.1%		6
Bewegungsapparat: Nacken- / Rückenschmerzen	14	90.0%	90.0%	7
Bewegungsapparat: Allgemeine Gelenkschmerzen	15	66.9%	29.7%	8
Bewegungsapparat: Arthrose	16	41.1%		8
Bewegungsapparat: Osteoporose	17	10.1%		8
Bewegungsapparat: Rheumatoide Arthritis	18	20.9%		8
Bewegungsapparat: Gicht	19	8.2%		8
Bewegungsapparat: Fibromyalgie	20	30.8%		8
Atmungsorgane: Chronisch obstruktive Lungenerkrankung (COPD)	28	9.6%	9.6%	9
Haut: Überempfindlichkeiten der Haut inkl. Schmerzen	30	15.1%	16.6%	10
Haut: Juckreiz	31	15.9%		10
Haut: Hautausschläge	32	28.1%		10
Haut: Psoriasis	33	15.8%		10
Haut: Warzen	34	8.2%		10
Neurologie: Kopfschmerzen / Migräne	41	90.7%	90.7%	11
Neurologie: Empfindungsstörungen / Missempfindungen	42	32.1%	32.1%	12
Neurologie: Krampfanfälle / neurologische Anfälle	43	8.4%	11.4%	13
Neurologie: Multiple Sklerose	45	17.2%		13
Neurologie: Morbus Parkinson	46	8.5%		13
Neurologie: Lähmungen	44	7.6%	10.2%	14
Neurologie: Folgen von Schlaganfall	49	12.8%		14
Bösartige Neubildungen: ja	50	24.4%	24.4%	15
Herz-Kreislauf: Herzschmerzen / Druck oder Engegefühl in der Brust	51	25.4%	20.1%	16
Herz-Kreislauf: Herzinsuffizienz	52	5.5%		16
Herz-Kreislauf: Herzrhythmusstörungen	53	17.3%		16
Herz-Kreislauf: Hoher Blutdruck	54	35.7%		16
Herz-Kreislauf: Niedriger Blutdruck	55	17.0%		16
Augen und Ohren: Einschränkungen der Sehschärfe	58	7.5%	8.3%	17
Augen und Ohren: Erhöhter Augeninnendruck (Glaukom)	60	6.9%		17
Augen und Ohren: Trockenes Auge	61	10.6%		17
Stoffwechsel: Erhöhte Blutfettwerte	62	11.7%	13.6%	18
Stoffwechsel: Diabetes mellitus	63	13.7%		18
Stoffwechsel: Hypo- / Hyperthyreose	64	15.5%		18
Suchterkrankungen: Alkoholabhängigkeit	65	7.3%	8.6%	19
Suchterkrankungen: Tabakabhängigkeit	66	11.8%		19
Suchterkrankungen: Medikamentenabhängigkeit	67	6.6%		19
Hämatologie/Immunologie: Anämie (Blutarmut)?	70	15.6%	15.6%	20
Hämatologie/Immunologie: Andere Blut- / Lymph- / Milzkrankungen	72	7.9%	7.9%	22
Urologie: Blasenbeschwerden	73	45.2%	33.6%	23
Urologie: Nierenbeschwerden	74	21.9%		23
Schwangerschaft, Geburt, Familienplanung: Kinderwunsch	75	35.3%	36.1%	24
Schwangerschaft, Geburt, Familienplanung: Schwangerschaftsbegleitung	76	50.6%		24
Schwangerschaft, Geburt, Familienplanung: Stillbeschwerden oder Beschwerden nach der Geburt	77	22.4%		24
Genitale/ Brust: Prämenstruelle / menstruelle Beschwerden	78	53.4%	29.9%	25
Genitale/ Brust: Menopausale Beschwerden (z.B. Hitzewallungen)	79	48.1%		25
Genitale/ Brust: Sexuelle Funktionsstörungen	80	9.8%		25
Genitale/ Brust: Unterbauch- / Unterleibsbeschwerden	81	28.2%		25
Genitale/ Brust: Beschwerden der Brust	82	10.1%		25
Kinder: Zahnen	84	11.5%	17.7%	26
Kinder: Unruhiges Kind / ADHS	85	38.0%		26
Kinder: Dreimonatskoliken	86	23.8%		26
Kinder: Bettmässen / Stuhlinkontinenz	87	21.1%		26
Kinder: Fieber bei Kindern	88	6.3%		26
Kinder: Mittelohrentzündung	90	15.6%		26
Kinder: Mandelentzündung	91	7.5%		26

Appendix D. Clustering of complaints stratified by language (total sample)

Beschwerden	Nummer	Deutsch %	Deutsch MW %	Franz. %	Franz. MW %	Ital. %	Ital. MW %	Beschwerden-cluster
Häufige Beschwerden Liste: Grippe / Erkältung / Infektionen der oberen Luftwege	1	16.7%	19.5%	18.8%	20.5%	20.5%	17.8%	1
Häufige Beschwerden Liste: Infektanfälligkeit	2	25.4%		16.8%		15.9%		1
Augen und Ohren: Ohrenscherzen	57	16.5%		26.1%		17.0%		1
Häufige Beschwerden Liste: Schwäche / allgemeine Müdigkeit	3	54.9%	42.7%	49.7%	44.7%	47.7%	42.4%	2
Häufige Beschwerden Liste: Stress / Nervosität	4	76.1%		79.0%		76.1%		2
Häufige Beschwerden Liste: Schlafstörungen	5	63.0%		64.8%		61.4%		2
Psyche: Depressive Störungen	35	58.8%		52.3%		43.2%		2
Psyche: Angststörungen und Phobien	36	39.8%		46.9%		50.0%		2
Psyche: Burnout	37	58.1%		54.8%		45.5%		2
Psyche: Somatisierungsstörungen / Hypochondrie	38	15.5%		28.4%		34.1%		2
Psyche: Essstörungen (Anorexie, Bulimie)	39	9.7%		18.8%		17.0%		2
Psyche: Stammeln, Stottern, Tic	40	8.0%		7.7%		6.8%		2
Häufige Beschwerden Liste: Allergien / Heuschnupfen	6	30.0%	25.2%	27.3%	22.7%	27.3%	26.9%	3
Häufige Beschwerden Liste: Nahrungsmittelsensitivitäten (Gluten etc.)	7	12.1%		13.6%		19.3%		3
Atmungsorgane: Asthma	29	33.4%		27.3%		34.1%		3
Häufige Beschwerden Liste: Bauchschmerzen	8	25.0%	26.3%	49.4%	38.7%	33.0%	33.4%	4
Verdauungssystem: Verdauungsstörungen (Durchfall, Verstopfung, Blähungen)	22	64.9%		74.4%		64.8%		4
Verdauungssystem: Reizdarmsyndrom	23	36.7%		41.8%		37.5%		4
Verdauungssystem: Chronisch entzündliche Darmerkrankung	24	19.3%		24.7%		28.4%		4
Verdauungssystem: Sodbrennen	25	18.8%		41.2%		31.8%		4
Verdauungssystem: Gastritis	26	10.5%		23.6%		29.5%		4
Verdauungssystem: Lebererkrankungen	27	8.8%		15.6%		9.1%		4
Häufige Beschwerden Liste: Schwindel	10	36.9%	34.2%	34.7%	39.5%	23.9%	35.5%	5
Bewegungsapparat: Kiefergelenkschmerzen	21	25.7%		36.1%		35.2%		5
Neurologie: Neuralgien	48	20.0%		40.9%		40.9%		5
Augen und Ohren: Tinnitus / Hörsturz	56	53.9%		46.3%		42.0%		5
Häufige Beschwerden Liste: Adipositas	11	5.6%	10.8%	12.5%	14.9%	15.9%	17.0%	6
Häufige Beschwerden Liste: Lebensstil im Rahmen einer Erkrankung inkl. Ernährung	12	15.9%		17.3%		18.2%		6
Bewegungsapparat: Nacken- / Rückenschmerzen	14	90.4%	90.4%	87.8%	87.8%	84.1%	84.1%	7
Bewegungsapparat: Allgemeine Gelenkschmerzen	15	65.5%	28.9%	78.7%	35.7%	71.6%	35.4%	8
Bewegungsapparat: Arthrose	16	40.0%		48.9%		50.0%		8
Bewegungsapparat: Osteoporose	17	9.6%		12.5%		15.9%		8
Bewegungsapparat: Rheumatoide Arthritis	18	20.6%		24.4%		18.2%		8
Bewegungsapparat: Gicht	19	8.2%		8.0%		8.0%		8
Bewegungsapparat: Fibromyalgie	20	29.1%		41.5%		48.9%		8
Atmungsorgane: Chronisch obstruktive Lungenerkrankung (COPD)	28	9.8%	9.8%	6.8%	6.8%	12.5%	12.5%	9
Haut: Überempfindlichkeiten der Haut inkl. Schmerzen	30	15.4%	16.8%	13.1%	14.8%	13.6%	18.4%	10
Haut: Juckreiz	31	15.4%		19.0%		20.5%		10
Haut: Hautausschläge	32	29.3%		17.0%		26.1%		10
Haut: Psoriasis	33	15.0%		20.7%		23.9%		10
Haut: Warzen	34	8.6%		4.3%		8.0%		10
Neurologie: Kopfschmerzen / Migräne	41	91.1%	91.1%	88.1%	88.1%	86.4%	86.4%	11
Neurologie: Empfindungsstörungen / Missempfindungen?	42	32.5%	32.5%	31.8%	31.8%	20.5%	20.5%	12
Neurologie: Krampfanfälle / neurologische Anfälle	43	9.0%	11.3%	3.7%	11.8%	8.0%	12.9%	13
Neurologie: Multiple Sklerose	45	16.6%		22.4%		15.9%		13
Neurologie: Morbus Parkinson	46	8.3%		9.4%		14.8%		13
Neurologie: Lähmungen	44	7.8%	10.0%	7.1%	12.6%	5.7%	9.7%	14
Neurologie: Folgen von Schlaganfall	49	12.2%		18.2%		13.6%		14
Bösartige Neubildungen: ja	50	24.9%	24.9%	21.6%	21.6%	20.5%	20.5%	15
Herz-Kreislauf: Herzschmerzen / Druck oder Engegefühl in der Brust	51	26.5%	20.5%	18.8%	17.4%	10.2%	17.5%	16
Herz-Kreislauf: Herzinsuffizienz	52	5.2%		8.0%		5.7%		16
Herz-Kreislauf: Herzrhythmusstörungen	53	17.3%		18.8%		11.4%		16
Herz-Kreislauf: Hoher Blutdruck	54	36.5%		27.3%		37.5%		16
Herz-Kreislauf: Niedriger Blutdruck	55	17.1%		14.2%		22.7%		16
Augen und Ohren: Einschränkungen der Sehschärfe	58	7.5%	8.4%	7.1%	7.7%	9.1%	8.0%	17
Augen und Ohren: Erhöhter Augeninnendruck (Glaukom)	60	7.2%		4.5%		4.5%		17
Augen und Ohren: Trockenes Auge	61	10.6%		11.4%		10.2%		17
Stoffwechsel: Erhöhte Blutfettwerte	62	11.8%	13.5%	9.4%	14.3%	15.9%	17.0%	18
Stoffwechsel: Diabetes mellitus	63	14.0%		11.1%		13.6%		18
Stoffwechsel: Hypo- / Hyperthyreose	64	14.5%		22.4%		21.6%		18
Suchterkrankungen: Alkoholabhängigkeit	65	7.1%	8.2%	8.8%	11.1%	10.2%	12.9%	19
Suchterkrankungen: Tabakabhängigkeit	66	11.1%		16.5%		18.2%		19
Suchterkrankungen: Medikamentenabhängigkeit	67	6.3%		8.0%		10.2%		19
Hämatologie/Immunologie: Anämie (Blutarmut)	70	15.4%	15.4%	17.3%	17.3%	17.0%	17.0%	20
Hämatologie/Immunologie: Andere Blut- / Lymph- / Milzerkrankungen	72	7.7%	7.7%	9.4%	9.4%	6.8%	6.8%	22
Urologie: Blasenbeschwerden	73	46.0%	34.0%	39.5%	29.5%	39.8%	32.4%	23
Urologie: Nierenbeschwerden	74	22.0%		19.6%		25.0%		23
Schwangerschaft, Geburt, Familienplanung: Kinderwunsch	75	34.3%	35.3%	42.3%	42.6%	40.9%	38.6%	24
Schwangerschaft, Geburt, Familienplanung: Schwangerschaftsbegleitung	76	49.7%		59.4%		50.0%		24
Schwangerschaft, Geburt, Familienplanung: Stillbeschwerden oder Beschwerden nach der Geburt	77	21.9%		26.1%		25.0%		24

Genitale/ Brust: Prämenstruelle / menstruelle Beschwerden	78	52.8%	29.3%	57.1%	34.4%	60.2%	32.3%	25
Genitale/ Brust: Menopausale Beschwerden (z.B. Hitzewallungen)	79	47.5%		50.9%		58.0%		25
Genitale/ Brust: Sexuelle Funktionsstörungen	80	9.2%		14.8%		11.4%		25
Genitale/ Brust: Unterbauch- / Unterleibsbeschwerden	81	27.6%		34.1%		25.0%		25
Genitale/ Brust: Beschwerden der Brust	82	9.6%		15.1%		6.8%		25
Kinder: Zahnen	84	11.5%	17.4%	9.1%	19.6%	18.2%	19.2%	26
Kinder: Unruhiges Kind / ADHS	85	38.7%		32.7%		34.1%		26
Kinder: Dreimonatskoliken	86	22.5%		34.9%		27.3%		26
Kinder: Bettnässen / Stuhlinkontinenz	87	20.8%		21.9%		28.4%		26
Kinder: Fieber bei Kindern	88	6.4%		5.4%		6.8%		26
Kinder: Mittelohrentzündung	90	14.5%		26.1%		11.4%		26
Kinder: Mandelentzündung	91	7.5%		7.4%		8.0%		26

Appendix E. Supplementary data

Supplementary material related to this article can be found, in the online version, at doi:<https://doi.org/10.1016/j.eujim.2020.101109>.

References

- [1] M. Fritzsche, C.C.S. Man, C. Vennos, C. Loepfe, C. Ganz, B. Meli, C. Bachmann, Y.T. Christ, J.-M. Jeannin, M. Kluge, *Mitteilungen Dakomed, Schweizerische Zeitschrift Für Ganzheitsmedizin/Swiss J. Integr. Med.* 26 (4) (2014) 250–251.
- [2] Die Bundesversammlung - Das Schweizer Parlament, *Komplementärmedizin. Stand der Umsetzung von Artikel 118a der Bundesverfassung und Ausblick, (2014)* <https://www.parlament.ch/de/ratsbetrieb/suche-curia-vista/geschaefft?AffairId=20143089>.
- [3] Der Bundesrat - Das Portal der Schweizer Regierung, *Verordnung des EDI über Leistungen in der obligatorischen Krankenpflegeversicherung, (1995)* <https://www.admin.ch/opc/de/classified-compilation/19950275/index.html>.
- [4] Bundesamt für Gesundheit B.A.G., *Ärztliche Komplementärmedizin, 2017.* <https://www.bag.admin.ch/bag/de/home/versicherungen/krankenversicherung/krankenversicherung-leistungen-tarife/Aerztliche-Leistungen-in-der-Krankenversicherung/Aerztliche-Komplementaermedizin.html>. (Accessed 7 December 2018).
- [5] K. von Ammon, M. Frei-Erb, F. Cardini, U. Daig, S. Dragan, G. Hegyi, P. Roberti di Sarsina, J. Sorensen, G. Lewith, *Complementary and alternative medicine provision in Europe - first results approaching reality in an unclear field of practices, Forsch.* 19 (Suppl 2) (2012) 37–43.
- [6] A. Deglon-Fischer, J. Barth, B. Ausfeld-Hafter, *Complementary and alternative medicine in primary care in Switzerland, Forsch Komplementmed* 16 (4) (2009) 251–255.
- [7] S.D. Klein, M. Frei-Erb, U. Wolf, *Usage of complementary medicine across Switzerland: results of the Swiss Health Survey 2007, Swiss Med.* 142 (2012) w13666.
- [8] S.D. Klein, L. Torchetti, M. Frei-Erb, U. Wolf, *Usage of complementary medicine in Switzerland: results of the Swiss health survey 2012 and development since 2007, PLoS One* 10 (10) (2015) e0141985.
- [9] L.M. Kempainen, T.T. Kempainen, J.A. Reippainen, S.T. Salmenniemi, P.H. Vuolanto, *Use of complementary and alternative medicine in Europe: health-related and sociodemographic determinants, Scand. J. Public Health* 46 (4) (2018) 448–455.
- [10] S. Kattge, K. Goetz, K. Glassen, J. Steinhauser, *Job profile of non-medical practitioners: a cross-sectional study from the health service perspective, Complement. Med. Res.* 24 (5) (2017) 285–289.
- [11] WONCA International Classification Committee, *International Classification of Primary Care ICPC-2-R, Revised, second ed., Oxford University Press, New York, 2005.*
- [12] G. Laux, T. Rosemann, T. Körner, M. Heiderhoff, A. Schneider, T. Kühlein, J. Szecsenyi, *Detailed data collection regarding the utilization of medical services, morbidity, course of illness and outcomes by episode-based documentation in general practices within the CONTENT project, Gesundheitswesen (Bundesverband der Ärzte des Öffentlichen Gesundheitsdienstes (Germany))* 69 (5) (2007) 284–291.
- [13] IBM, *SPSS Statistics 23, E. IBM Deutschland GmbH, Germany, 2017.*
- [14] R Development Core Team, *R: a Language and Environment for Statistical Computing, R Foundation for Statistical Computing, Vienna, Austria, 2008.*
- [15] A.N. Corallo, R. Croxford, D.C. Goodman, E.L. Bryan, D. Srivastava, T.A. Stukel, *A systematic review of medical practice variation in OECD countries, Health Policy* 114 (1) (2014) 5–14.
- [16] P.A. Camenzind, *Explaining regional variations in health care utilization between Swiss cantons using panel econometric models, BMC Health Serv. Res.* 12 (2012) 62.
- [17] O. Reich, C. Weins, C. Schusterschitz, M. Thoni, *Exploring the disparities of regional health care expenditures in Switzerland: some empirical evidence, Eur. J. Health Econ.* 13 (2) (2012) 193–202 HEPAC: Health Economics in Prevention and Care.
- [18] M. Widmer, P. Matter, L. Staub, F. Schoeni-Affolter, A. Busato, *Regional variation in orthopedic surgery in Switzerland, Health Place* 15 (3) (2009) 761–768.
- [19] J. Appleby, V. Raleigh, F. Frosini, G. Bevan, H. Gao, T. Lyscom, *Variations in Health Care. The Good, the Bad and the Inexplicable, (2011).*
- [20] E. Jones, L. Nissen, A. McCarthy, K. Steadman, C. Windsor, *Exploring the use of complementary and alternative medicine in cancer patients, Integr. Cancer Ther.* 18 (2019).
- [21] J.E. Wennberg, E.S. Fisher, J.S. Skinner, *Geography and the Debate Over Medicare Reform, Health affairs (Project Hope) Suppl Web Exclusives, 2002, pp. W96–114.*
- [22] J. Dubois, E. Scala, M. Faouzi, I. Decosterd, B. Burnand, P.Y. Rodondi, *Chronic low back pain patients' use of, level of knowledge of and perceived benefits of complementary medicine: a cross-sectional study at an academic pain center, BMC Complement. Altern. Med.* 17 (1) (2017) 193.
- [23] A. Busato, A. Donges, S. Herren, M. Widmer, F. Marian, *Health status and health care utilisation of patients in complementary and conventional primary care in Switzerland — an observational study, Fam. Pract.* 23 (1) (2006) 116–124.
- [24] V. Wapf, A. Busato, *Patients' motives for choosing a physician: comparison between conventional and complementary medicine in Swiss primary care, BMC Complement. Altern. Med.* 7 (1) (2007).
- [25] S. Joos, B. Musselmann, J. Szecsenyi, K. Goetz, *Characteristics and job satisfaction of general practitioners using complementary and alternative medicine in Germany—is there a pattern? BMC Complement. Altern. Med.* 11 (1) (2011) 131.
- [26] K. Goetz, M. Jossen, J. Szecsenyi, T. Rosemann, K. Hahn, S. Hess, *Job satisfaction of primary care physicians in Switzerland: an observational study, Fam. Pract.* 33 (5) (2016) 498–503.
- [27] I. Van Ham, A.A. Verhoeven, K.H. Groenier, J.W. Groothoff, J. De Haan, *Job satisfaction among general practitioners: a systematic literature review, Eur. J. Gen. Pract.* 12 (4) (2006) 174–180.
- [28] B. Sibbald, C. Bojke, H. Gravelle, *National survey of job satisfaction and retirement intentions among general practitioners in England, BMJ* 326 (7379) (2003) 22.
- [29] A.E. Clark, *Job satisfaction and gender: why are women so happy at work? Labour Econ.* 4 (4) (1997) 341–372.
- [30] J. Paul, K.B. Robertson, F. Herzberg, *Job enrichment pays off, Harv. Bus. Rev.* (1969).
- [31] L.S. Linn, R.H. Brook, V.A. Clark, A.R. Davies, A. Fink, J. Kosecoff, *Physician and patient satisfaction as factors related to the organization of internal medicine group practices, Med. Care* 23 (10) (1985) 1171–1178.
- [32] J.S. Haas, E.F. Cook, A.L. Puopolo, H.R. Burstin, P.D. Cleary, T.A. Brennan, *Is the professional satisfaction of general internists associated with patient satisfaction? J. Gen. Intern. Med.* 15 (2) (2000) 122–128.
- [33] T.D. Shanafelt, O. Hasan, L.N. Dyrbye, C. Sinsky, D. Satele, J. Sloan, C.P. West, *Changes in burnout and satisfaction with work-life balance in physicians and the general US working population between 2011 and 2014, Mayo Clinic Proceedings* (2015) 1600–1613 Elsevier.
- [34] G. Easthope, B. Tranter, G. Gill, *Medicine, general practitioners' attitudes toward complementary therapies, Soc. Sci. Med.* 51 (10) (2000) 1555–1561.
- [35] K. Linde, A. Alschner, C. Friedrichs, S. Wagenpfeil, M. Karsch-Völk, A. Schneider, *Belief in and use of complementary therapies among family physicians, internists and orthopaedists in Germany—cross-sectional survey, Fam. Pract.* 32 (1) (2014) 62–68.
- [36] M. Artus, P. Croft, M. Lewis, *The use of CAM and conventional treatments among primary care consultants with chronic musculoskeletal pain, BMC Fam. Pract.* 8 (1) (2007) 26.
- [37] A. Robinson, M.R. McGrail, *Disclosure of CAM use to medical practitioners: a review of qualitative and quantitative studies, Complement. Ther. Med.* 12 (2–3) (2004) 90–98.
- [38] G. Lewith, M. Hyland, S. Gray, *Attitudes to and use of complementary medicine among physicians in the United Kingdom, Complement. Ther. Med.* 9 (3) (2001) 167–172.