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

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1 **What is offered and treated by non-medical complementary therapists in Switzerland:**

2 **Results from a national web survey**

3

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28

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30

31 **Abstract**

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

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

43 **Results:** Of 17,647 initially invited therapists 3,942 responded (22.3%) and data of 3,638  
44 therapists could be analysed. Therapists were often females in own practice and had high job  
45 satisfaction, but were less satisfied with the collaboration with medical doctors. Therapists  
46 stated that they most often provide classical massage, craniosacral therapy, Traditional  
47 Chinese Medicine, naturopathic practices and medical massage. French speaking therapists  
48 stated that they more often provide osteopathy and manual lymph drainage but less often  
49 craniosacral therapy than German speaking therapists. Headache and back pain were named  
50 as the most common treated complaints.

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

54

55 **Keywords:** Survey, complementary medicine, job satisfaction, health services research, cross  
56 sectional study, Switzerland

57 **1. Introduction**

58 Complementary medicine was implemented in the Swiss constitution [1] after public voting  
59 [2] and health policy makers made efforts to make complementary therapies available for the  
60 public. Physicians can actually offer five different treatments in Switzerland (acupuncture,  
61 anthroposophic medicine, Traditional Chinese Medicine (TCM), homeopathy, and  
62 phytomedicine) within the basic health insurance [3, 4]. In addition to that, in Switzerland,  
63 non-medical complementary therapists can also offer their service to patients. About 27,000  
64 complementary therapists are registered in Switzerland, which is a pre-requisite for the  
65 reimbursement of their service. More than 200 different types of non-medical complementary  
66 treatments are registered and therapists with an accreditation in a registry (like Experience  
67 Medicine Register EMR) can bill patients for such treatments in a standardised way. This is  
68 either reimbursed within a supplementary private health insurance or is paid out of pocket.

69 Despite the fact that around 200 different interventions are available in Switzerland,  
70 about 20 of them cover most of the reimbursed treatments from the supplementary private  
71 health insurance (health insurance company SWICA, personal communication). On a  
72 European level, acupuncture is the most prevalent treatment with a ratio of about 21 therapists  
73 per 100.000 inhabitants [5]. Also, in Switzerland acupuncture is often used and about 60% of  
74 the general practitioners refer patients to acupuncture [6]. Homeopathy (11/100.000), herbal  
75 medicine (6.5/100.000), naturopathy (5/100.000) also account for many consultations on an  
76 European level whereas manual therapies including osteopathy (1.2/100.000) and  
77 anthroposophic medicine (1/100.000) and others are less often used [5, 6]. The professional  
78 interplay between regular medical care (i.e. general practitioners) and complementary  
79 treatments are not studied well so far and upcoming studies might help to understand this  
80 interprofessional collaboration better.

81 From a consumer perspective there is a regional variability in the use of  
82 complementary therapy across Switzerland and also patient characteristics contribute to such

83 user patterns. Results from the Swiss Health Survey showed a higher utilisation of osteopathy  
84 especially in the French part of Switzerland compared to other parts of the country [7].  
85 Patients with chronic diseases, poor health status and an additional supplemental health  
86 insurance more often use complementary interventions in Switzerland [8]. According to an  
87 analysis that compared data from 2007 and 2012 there was an increase in the use of  
88 homeopathy, osteopathy and herbal medicine but other interventions were used less often [8].

89 The use of complementary therapies also depends on the complaints, which patients  
90 experience. A recent survey across Europe showed that neck and back pain, cancer, and  
91 digestive symptoms are the most important reasons to consult a complementary therapy  
92 provider [9]. Non-medical complementary therapists in Germany reported to treat mainly  
93 general or unspecific complaints, musculoskeletal complaints and psychological disorders  
94 [10].

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

100

## 101 **2. Methods**

### 102 *2.1 Selection and description of therapists*

103 All therapists who have been registered at least 12 months in the Experience Medicine  
104 Register (EMR) for one of the most frequently used 20 treatments according to SWICA  
105 customer statistics were included in the study (the list of included treatments can be found in  
106 Appendix 1). A total of 17,647 therapists (14,788 with German language, 2,614 with French  
107 language) fulfilled this inclusion criteria and were invited to participate in the online-survey.  
108 The EMR includes the information about preferred language (only German and French),

109 however we also made the survey available in Italian. The higher number of German speaking  
110 therapists reflects the structure of the members in the database. Therapists who reported less  
111 than 10 hours practicing time per week in the survey were excluded from the analysis.

112 All participating therapists were informed about the study aim before starting to fill in  
113 their responses. All data was collected in an anonymous way and no identification of  
114 therapists is possible since data from register is only available by EMR and survey data is  
115 only available by the Institute for Complementary and Integrative Medicine (IKI). The study  
116 protocol and the survey questions were sent to the cantonal ethics committee of Zurich (Req-  
117 2017-00136) and evaluated as not being under the scope of the Swiss human research law.

118

## 119 *2.2 Study design*

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

130

## 131 *2.3 Procedure and survey*

132 The anonymous online-survey was created with the open source online-survey tool soSci  
133 Survey (soSci Survey GmbH, Munich, Germany). The survey was available in three

134 languages (German, French, Italian), each representing one geographical part of Switzerland.  
135 Participants could freely choose their language on the entry page. The survey consisted of  
136 three sections.

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

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

151 In the analysis we grouped redundant data from the list of complaints into larger  
152 clusters in order to generate information about the prevalence of these comprehensive  
153 symptom domains. In the first step, this list of complaints was grouped based on medical  
154 reasoning (i.e. related disorders like stroke and paralysis were combined) and high  
155 correlations between complaints, which might result in these complaints being summarised  
156 into a broader cluster (like musculoskeletal disorders with complaints like osteoporosis,  
157 rheumatoid arthritis, fibromyalgia etc.). We generated a list of 25 clusters of complaints with  
158 1 to 8 single complaints. In the second step we calculated the mean prevalence across all



159 complaints in one cluster, resulting in one value for the prevalence of this domain in the  
160 therapist population.

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

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

167

## 168 *2.4 Analysis*

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

174

## 175 **3. Results**

### 176 *3.1 Sample description*

177 Of the 17,402 invited complementary therapists, 3,942 started the survey. Out of those, 304  
178 were excluded due to incomplete data about type of treatment the therapists provide, business  
179 hours with less than 10 hours per week or a working activity as therapist in own practice with  
180 less than 12 months. The data of 3,638 participants (3,198 using German language, 352  
181 French, 88 Italian) was analysed in a descriptive way (table 1). Interestingly the gender of the  
182 therapists varies across language regions with most female therapist with German language  
183 (84.2%; n = 2,692) and less females in French speaking (71.9 %; n = 253) or Italian speaking  
184 therapists (63.6% (n = 56). In total, the mean age was 51.1 ( $\pm$ 26.4) years and 91.1% (n =

185 3,332) of the therapists were self-employed. On average, the therapists worked for 14.0 years  
186 ( $\pm 7.8$ ) with a mean of 25.5 office hours ( $\pm 11.0$ ) per week. The mean duration of the first  
187 treatment was reported to be 73.8 ( $\pm 21.6$ ) minutes (mode 90 minutes), whereas the duration of  
188 the following treatment was around one hour ( $58.1 \pm 14.5$  minutes).

189

### 190 *3.2 Job satisfaction and satisfaction with professional cooperation*

191 The general job satisfaction of the therapists was high with a mean of 7.3 ( $\pm 2.3$ ) in the first  
192 year of their work as therapists (table 2). The current job satisfaction was even higher with a  
193 mean of 8.9 ( $\pm 1.3$ ), as well as the expected job satisfaction with work in five years with a  
194 mean of 8.9 ( $\pm 1.4$ ). However, the satisfaction with the cooperation with physicians was rather  
195 low with 4.4 ( $\pm 2.7$ ) with a considerable variation between therapists.

196

### 197 *3.3 Treatments*

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

204 The comparison of the therapeutic treatments across languages showed considerable  
205 variation. Classical massage was the most frequently offered treatment by German speaking  
206 therapists (16.2%, n = 519) whereas osteopathy/etiopathy was the most frequently offered by  
207 French speaking therapist (23.3%; n = 82). In Italian speaking therapists, medical massage  
208 was most prevalent (13.6%; n = 12). While craniosacral therapy ranked second for German  
209 speaking therapists (9.8%, n = 315), similar to French speaking therapists (16.8%, n = 59),  
210 only 0.6% (n = 2) of the Italian speaking therapists considered craniosacral therapy as their

211 major treatment. Acupunct(ure)-massage was mentioned by 6.6% (n = 212) of the German  
212 speaking therapists (8<sup>th</sup> rank), while none of the French or Italian speaking therapists used this  
213 treatment.

214

### 215 *3.4 Medical complaints*

216 As presented in table 4, most of the therapists commonly treat patients with both, chronic and  
217 acute complaints (63.6%, n = 3,211), whereas 30.9% (n = 1,123) mostly deal with chronic  
218 patients and only 5.4% (n = 197) work with acute ill patients. The most frequently treated  
219 complaint was headache/migraine, followed by neck-/back pain with 90.0% and stress with  
220 76.4%. These findings are presented in the Appendix 2.

221 These complaints were grouped into 25 clusters of complaints and table 5 shows the  
222 findings about the average percentage of complaints in each cluster. Again, headache, back  
223 pain, and mental disorders are commonly treated domains. But also, complaints of women  
224 during pregnancy and neuralgia in the face are often treated problems. Overall there was no  
225 clear difference between language regions. Information about the grouping of complaints is  
226 shown in Appendix 3.

227

## 228 **4. Discussion**

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

235 Our survey showed regional variation within Switzerland in the offered interventions  
236 of non-medical complementary therapists. This finding is in line with the considerable

237 differences in healthcare practice across regions, hospitals and physician practices for almost  
238 every condition and procedure around the world [15] and in Switzerland [16-18].

239         Many factors can explain variations in healthcare [19]. First, factors related to  
240 geographical regions might affect the demand for complementary therapies, such as patients'  
241 attitudes towards these treatments, cultural-related factors, the comorbidity of patients, or  
242 socioeconomic factors [20]. Second, differences in the supply of complementary therapies can  
243 also exist. These differences are based on the availability of healthcare providers, the absence  
244 of a standard training programme for healthcare professionals, the lack of standardisation of  
245 CAM practitioners and their practice standards [20], the scarcity of rigorous clinical  
246 guidelines, or the reimbursement and the government policies. In this line, complementary  
247 therapies may be considered as a good example of 'supply-sensitive care', as the frequency of  
248 its use might depend on the local availability of healthcare providers. However, this  
249 explanation is difficult to check in the Swiss context as the registration at EMR is not  
250 compulsory, and other registers can also be used to become reimbursed as a therapist.

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

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

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

271 The non-medical complementary therapists in our study were in general highly  
272 satisfied with their job. A study from Germany comparing general practitioners with or  
273 without CAM use found a similar job satisfaction between both groups [25]. However, the job  
274 satisfaction was much lower compared to a similar sample of GPs in Switzerland [26]. Since  
275 no predictors for job satisfaction of complementary therapist in Switzerland have been  
276 published we searched for studies about GPs and factors associated with high job satisfaction.  
277 This data showed, that autonomy and variation in work tasks is associated with high job  
278 satisfaction [27]. For general practitioners it was found that less working hours per week are  
279 associated with higher job satisfaction, which supports our findings [28] in our sample that is  
280 mainly working part time. As other drivers for the high job satisfaction of therapists in our  
281 sample, the lower number of patients per day and the large freedom in working tasks based on  
282 the own set agenda can be named. According to our findings, the mean duration of a regular  
283 consultation is about 60 minutes which considerably cuts down the number of patients seen  
284 per day by Swiss therapists. Also, the high number of females in our sample may contribute to  
285 the high job satisfaction. Female gender in itself might contribute to the overall job  
286 satisfaction across different jobs, which was in parts explained by a lower expectation of  
287 females towards their job in general [29]. In summary the working context of the therapist

288 might be characterised by criteria for low job dissatisfaction (i.e. negative working conditions,  
289 regulations, supervision) and criteria for high job satisfaction (i.e. recognition, salary,  
290 personal growth) according to the two factor theory by Frederick Herzberg [30]. Most of the  
291 therapist work in their own practice and the impact of the team is not that relevant neither for  
292 their satisfaction nor their dissatisfaction.

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

298 The therapists indicated a moderate satisfaction with the collaboration with physicians.  
299 A closer look for the distribution of this data showed that many therapists rated this item with  
300 5 on a 10-point scale. This might be interpreted as “this is not relevant for me in my work”.  
301 From a health services perspective there might be a need for care models, that build a bridge  
302 between medical care *and* treatments by complementary therapists. However, there might be  
303 beliefs on both sides that are barriers for a closer collaboration. There are studies that indicate  
304 that GPs and other medical professions have more favourable attitudes towards  
305 complementary care if they are, for example, of younger age, have positive own experiences,  
306 practice in an urban area [34, 35]. There are many medical practitioners who would refer  
307 patients to a therapist. In addition, the access to both health care professions might play a role:  
308 Since medical practitioners and therapists can be directly accessed by patients in Switzerland  
309 the collaboration of both professions might have a low impact from a patients’ perspective.  
310 Results from other countries showed that patients often use CAM in parallel to regular  
311 medical care [36], but it is also common not to disclose CAM treatment to medical  
312 practitioners [37]. Our results indicate that referral practice between both health care sectors is  
313 underdeveloped so far, which is a finding already reported in other countries [38].

314

#### 315 *4.1 Strengths and limitations*

316 Our survey had a response rate of more than 20%, which is a good result for an anonymous  
317 web-based survey without any reimbursement, but self-selection bias might be present (i.e.  
318 therapists with less duties have more time to contribute). Some subsamples are quite small  
319 which is caused by the fact that some regions or interventions strategies are not that often  
320 represented in the EMR registry and registration at EMR is not compulsory. The  
321 generalisability of the results is limited by these two aspects (non-response and  
322 overrepresentation of German speaking therapists). As a reader one might assume that it is a  
323 weakness to force therapists to select one specific treatment they use most often since they  
324 might be trained for more than one therapy. However, the number of therapists having only  
325 one therapy registered is about 70%. This is a large nation-wide study on an important group  
326 of health care providers in Switzerland using a widespread register of these therapists. The  
327 combination of different medical complaints was necessary to allow a better overview about  
328 complex information, but as each summary approach it is based on assumptions and has its  
329 limitations. Therefore, we present in Appendix 4 the original data about prevalence of treated  
330 complaints across regions with all complaints before clustering. The complaints are grouped  
331 in this presentation according to the clusters of the analyses.

332

#### 333 *4.2 Conclusion*

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

337

#### 338 **Consent for publication**

339 All authors approved this manuscript for publication.

340

341 **Availability of data and material**

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

343

344 **Conflict of interest & funding**

345 The authors do not have any conflict of interest to declare. This study was funded by SWICA  
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348

349 **Authors' contributions**

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

353

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358

359



360 **References**

- 361 [1] M. Fritsch, C.C.S. Man, C. Vennos, C. Loepfe, C. Ganz, B. Meli, C. Bachmann, Y.T. Christ, J.-M.  
362 Jeannin, M. Kluge, *Mitteilungen Dakomed, Schweizerische Zeitschrift für Ganzheitsmedizin/Swiss*  
363 *Journal of Integrative Medicine* 26(4) (2014) 250-251.
- 364 [2] Die Bundesversammlung - Das Schweizer Parlament, *Komplementärmedizin. Stand der*  
365 *Umsetzung von Artikel 118a der Bundesverfassung und Ausblick*, 2014.  
366 <https://www.parlament.ch/de/ratsbetrieb/suche-curia-vista/geschaeft?AffairId=20143089>. (Accessed 7  
367 Dec 2018).
- 368 [3] Der Bundesrat - Das Portal der Schweizer Regierung, *Verordnung des EDI über Leistungen in der*  
369 *obligatorischen Krankenpflegeversicherung*, 1995. [https://www.admin.ch/opc/de/classified-](https://www.admin.ch/opc/de/classified-compilation/19950275/index.html)  
370 [compilation/19950275/index.html](https://www.admin.ch/opc/de/classified-compilation/19950275/index.html). (Accessed 7 Dec 2018).
- 371 [4] Bundesamt für Gesundheit BAG, *Ärztliche Komplementärmedizin*, 2017.  
372 [https://www.bag.admin.ch/bag/de/home/versicherungen/krankenversicherung/krankenversicherung-](https://www.bag.admin.ch/bag/de/home/versicherungen/krankenversicherung/krankenversicherung-leistungen-tarife/Aerztliche-Leistungen-in-der-Krankenversicherung/Aerztliche-Komplementaermedizin.html)  
373 [leistungen-tarife/Aerztliche-Leistungen-in-der-Krankenversicherung/Aerztliche-](https://www.bag.admin.ch/bag/de/home/versicherungen/krankenversicherung/krankenversicherung-leistungen-tarife/Aerztliche-Leistungen-in-der-Krankenversicherung/Aerztliche-Komplementaermedizin.html)  
374 [Komplementaermedizin.html](https://www.bag.admin.ch/bag/de/home/versicherungen/krankenversicherung/krankenversicherung-leistungen-tarife/Aerztliche-Leistungen-in-der-Krankenversicherung/Aerztliche-Komplementaermedizin.html). (Accessed 7 Dec 2018).
- 375 [5] K. von Ammon, M. Frei-Erb, F. Cardini, U. Daig, S. Dragan, G. Hegyi, P. Roberti di Sarsina, J.  
376 Sorensen, G. Lewith, *Complementary and alternative medicine provision in Europe - first results*  
377 *approaching reality in an unclear field of practices*, *Forsch Komplementmed* 19 Suppl 2 (2012) 37-43.
- 378 [6] A. Deglon-Fischer, J. Barth, B. Ausfeld-Hafter, *Complementary and alternative medicine in primary*  
379 *care in Switzerland*, *Forsch Komplementmed* 16(4) (2009) 251-5.
- 380 [7] S.D. Klein, M. Frei-Erb, U. Wolf, *Usage of complementary medicine across Switzerland: results of*  
381 *the Swiss Health Survey 2007*, *Swiss Med Wkly* 142 (2012) w13666.
- 382 [8] S.D. Klein, L. Torchetti, M. Frei-Erb, U. Wolf, *Usage of complementary medicine in Switzerland:*  
383 *results of the swiss health survey 2012 and development since 2007*, *PLoS One* 10(10) (2015)  
384 e0141985.
- 385 [9] L.M. Kempainen, T.T. Kempainen, J.A. Reippainen, S.T. Salmenniemi, P.H. Vuolanto, *Use of*  
386 *complementary and alternative medicine in Europe: Health-related and sociodemographic*  
387 *determinants*, *Scand J Public Health* 46(4) (2018) 448-455.
- 388 [10] S. Kattge, K. Goetz, K. Glassen, J. Steinhäuser, *Job profile of non-medical practitioners: A cross-*  
389 *sectional study from the health service perspective*, *Complement Med Res* 24(5) (2017) 285-289.
- 390 [11] WONCA International Classification Committee, *International Classification of Primary Care ICPC-*  
391 *2-R, Revised second ed.*, Oxford University Press, New York, 2005.
- 392 [12] G. Laux, T. Rosemann, T. Körner, M. Heiderhoff, A. Schneider, T. Kühlein, J. Szecsenyi, *Detailed*  
393 *data collection regarding the utilization of medical services, morbidity, course of illness and outcomes*  
394 *by episode-based documentation in general practices within the CONTENT project*,  
395 *Gesundheitswesen (Bundesverband der Ärzte des Öffentlichen Gesundheitsdienstes (Germany))*  
396 69(5) (2007) 284-291.
- 397 [13] IBM, *SPSS Statistics 23*, in: E. IBM Deutschland GmbH, Germany (Ed.) 2017.
- 398 [14] R Development Core Team, *R: A language and environment for statistical computing.*, R  
399 Foundation for Statistical Computing, Vienna, Austria, 2008.
- 400 [15] A.N. Corallo, R. Croxford, D.C. Goodman, E.L. Bryan, D. Srivastava, T.A. Stukel, *A systematic*  
401 *review of medical practice variation in OECD countries*, *Health policy (Amsterdam, Netherlands)*  
402 114(1) (2014) 5-14.
- 403 [16] P.A. Camenzind, *Explaining regional variations in health care utilization between Swiss cantons*  
404 *using panel econometric models*, *BMC health services research* 12 (2012) 62.
- 405 [17] O. Reich, C. Weins, C. Schusterschitz, M. Thoni, *Exploring the disparities of regional health care*  
406 *expenditures in Switzerland: some empirical evidence*, *The European journal of health economics :*  
407 *HEPAC : health economics in prevention and care* 13(2) (2012) 193-202.
- 408 [18] M. Widmer, P. Matter, L. Staub, F. Schoeni-Affolter, A. Busato, *Regional variation in orthopedic*  
409 *surgery in Switzerland*, *Health & place* 15(3) (2009) 761-8.
- 410 [19] J. Appleby, V. Raleigh, F. Frosini, G. Bevan, H. Gao, T. Lyscom, *Variations in health care. The*  
411 *good, the bad and the inexplicable*, 2011.
- 412 [20] E. Jones, L. Nissen, A. McCarthy, K. Steadman, C. Windsor, *Exploring the Use of Complementary*  
413 *and Alternative Medicine in Cancer Patients*, *Integr Cancer Ther* 18 (2019).
- 414 [21] J.E. Wennberg, E.S. Fisher, J.S. Skinner, *Geography and the debate over Medicare reform*,  
415 *Health affairs (Project Hope) Suppl Web Exclusives* (2002) W96-114.
- 416 [22] J. Dubois, E. Scala, M. Faouzi, I. Decosterd, B. Burnand, P.Y. Rodondi, *Chronic low back pain*  
417 *patients' use of, level of knowledge of and perceived benefits of complementary medicine: a cross-*  
418 *sectional study at an academic pain center*, *BMC Complement Altern Med* 17(1) (2017) 193.

419 [23] A. Busato, A. Donges, S. Herren, M. Widmer, F. Marian, Health status and health care utilisation  
420 of patients in complementary and conventional primary care in Switzerland - an observational study,  
421 *Fam Pract* 23(1) (2006) 116-24.  
422 [24] V. Wapf, A. Busato, Patients' motives for choosing a physician: comparison between conventional  
423 and complementary medicine in Swiss primary care, *BMC Complementary and Alternative Medicine*  
424 7(1) (2007).  
425 [25] S. Joos, B. Musselmann, J. Szecsenyi, K. Goetz, Characteristics and job satisfaction of general  
426 practitioners using complementary and alternative medicine in Germany-is there a pattern?, *BMC*  
427 *Complementary and Alternative Medicine* 11(1) (2011) 131.  
428 [26] K. Goetz, M. Jossen, J. Szecsenyi, T. Rosemann, K. Hahn, S. Hess, Job satisfaction of primary  
429 care physicians in Switzerland: an observational study, *Fam Pract* 33(5) (2016) 498-503.  
430 [27] I. Van Ham, A.A. Verhoeven, K.H. Groenier, J.W. Groothoff, J. De Haan, Job satisfaction among  
431 general practitioners: a systematic literature review, *Eur J Gen Pract* 12(4) (2006) 174-180.  
432 [28] B. Sibbald, C. Bojke, H. Gravelle, National survey of job satisfaction and retirement intentions  
433 among general practitioners in England, *BMJ* 326(7379) (2003) 22.  
434 [29] A.E. Clark, Job satisfaction and gender: why are women so happy at work?, *Labour Economics*  
435 4(4) (1997) 341-372.  
436 [30] J. Paul, K.B. Robertson, F. Herzberg, Job enrichment pays off, *Harv. Bus. Rev.* (1969).  
437 [31] L.S. Linn, R.H. Brook, V.A. Clark, A.R. Davies, A. Fink, J. Kosecoff, Physician and patient  
438 satisfaction as factors related to the organization of internal medicine group practices, *Medical Care*  
439 23(10) (1985) 1171-1178.  
440 [32] J.S. Haas, E.F. Cook, A.L. Puopolo, H.R. Burstin, P.D. Cleary, T.A. Brennan, Is the professional  
441 satisfaction of general internists associated with patient satisfaction?, *Journal of General Internal*  
442 *Medicine* 15(2) (2000) 122-128.  
443 [33] T.D. Shanafelt, O. Hasan, L.N. Dyrbye, C. Sinsky, D. Satele, J. Sloan, C.P. West, Changes in  
444 burnout and satisfaction with work-life balance in physicians and the general US working population  
445 between 2011 and 2014, *Mayo Clinic Proceedings*, Elsevier, 2015, pp. 1600-1613.  
446 [34] G. Easthope, B. Tranter, G. Gill, *Medicine*, General practitioners' attitudes toward complementary  
447 therapies, *Soc. Sci. Med.* 51(10) (2000) 1555-1561.  
448 [35] K. Linde, A. Alscher, C. Friedrichs, S. Wagenpfeil, M. Karsch-Völk, A. Schneider, Belief in and use  
449 of complementary therapies among family physicians, internists and orthopaedists in Germany—cross-  
450 sectional survey, *Fam. Pract.* 32(1) (2014) 62-68.  
451 [36] M. Artus, P. Croft, M. Lewis, The use of CAM and conventional treatments among primary care  
452 consultants with chronic musculoskeletal pain, *BMC Fam. Pract.* 8(1) (2007) 26.  
453 [37] A. Robinson, M.R. McGrail, Disclosure of CAM use to medical practitioners: a review of qualitative  
454 and quantitative studies, *Complement. Ther. Med.* 12(2-3) (2004) 90-98.  
455 [38] G. Lewith, M. Hyland, S. Gray, Attitudes to and use of complementary medicine among physicians  
456 in the United Kingdom, *Complement. Ther. Med.* 9(3) (2001) 167-172.  
457

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

	German (n=3'198)	French (n=352)	Italian (n=88)	Total (n=3'638)
	mean (SD); median; % (n)	mean (SD); median; %	mean (SD); median; %	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% (2'692)	71.9% (253)	63.6% (56)	82.5% (3'001)
male	15.8% (506)	28.1% (99)	36.4% (32)	17.5% (637)
Employment				
self-employed	92.0% (2'937)	91.7% (320)	89.5% (77)	91.9% (3'332)
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 ( <i>ys</i> )	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 ( <i>h</i> )	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 ( <i>min</i> )	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 ( <i>min</i> )	58.3 (13.8); 60.0	55.7 (21.1); 60.0	58.1 (12.4); 60.0	58.1 (14.5); 60.0

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

	German	French	Italian	Total
	mean (SD); median	mean (SD); median	mean (SD); median	mean (SD); median
Job satisfaction in the first year ( <i>NRS 0-10</i> )	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 ( <i>NRS 0-10</i> )	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 ( <i>NRS 0-10</i> )	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 ( <i>NRS 0-10</i> )	4.3 (2.7); 5.0	4.7 (2.7); 5.0	4.9 (2.6); 5.0	4.4 (2.7); 5.0

462

463 **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)

464 The strength of the colour represents the prevalence of the type of treatment. White colour

465 corresponds to the lowest and dark red to the highest prevalence.

466

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

	German	French	Italian	Total
	% (n)	% (n)	% (n)	% (n)
Both equally often	63.0 (2,012)	65.3 (230)	79.3 (69)	63.6 (3,211)
Patients with chronic complaints	31.6 (1,009)	27.8 (98)	18.4 (16)	30.9 (1,123)
Patients with acute complaints	5.4 (171)	6.8 (24)	2.3 (2)	5.4 (197)

468

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

Number	Complaint	Total avg. % (n=3,638)	German avg. % (n=3,198)	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	Allergia	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	Anaemie	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%

470



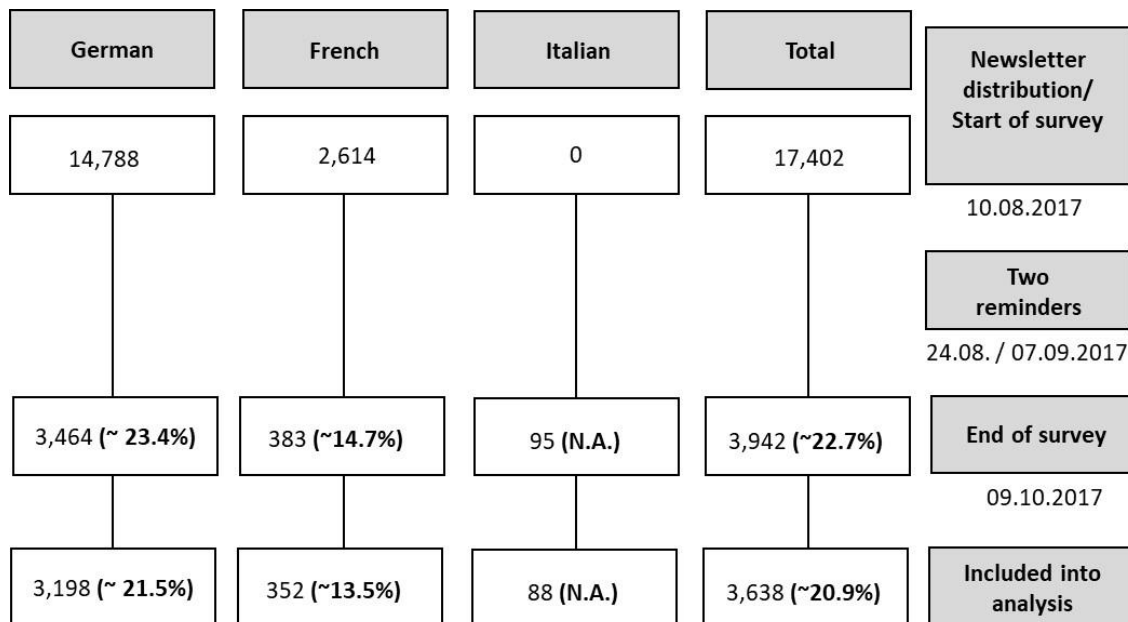
471 **Figure legends**

472 **Legend Figure 1.** Schematic illustration of the study flow. In total, 3,942 therapists started  
 473 the survey, however, only 3,638 were analysed since other participants did not fulfill the  
 474 inclusion criteria.

475

476 **Figures**

477 **Figure 1:** Flowchart of recruitment stratified for language (response rate and number of  
 478 included therapists in the analysis).



479

480

481 **Appendix**

482 Appendix 1: List of included kind of therapists (according to the top 20 number of registered  
483 therapists which was cross checked with SWICA reimbursements).

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

489

490 Appendix 2: Prevalence of 91 complaints in descending order of percentage. The percentage  
 491 represents the percentage of therapists treating this disease and does neither reflect the  
 492 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
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

493

<b>Name</b>	<b>Number</b>	<b>%</b>	<b>Cluster</b>
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

Name	Number	%	Cluster
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

496 Appendix 3: 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: Stammelnen, Stottern, Tic	40	7.9%		2
Häufige Beschwerden Liste: Allergien / Heuschnupfen	6	29.7%		25.0%
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: Bettnässen / 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

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498 Appendix 3: 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%		18.8%		20.5%		1
Häufige Beschwerden Liste: Infektanfälligkeit	2	25.4%	19.5%	16.8%	20.5%	15.9%	17.8%	1
Augen und Ohren: Ohrenschmerzen	57	16.5%		26.1%		17.0%		1
Häufige Beschwerden Liste: Schwäche / allgemeine Müdigkeit	3	54.9%		49.7%		47.7%		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%	42.7%	46.9%	44.7%	50.0%	42.4%	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: Stammelnen, Stottern, Tic	40	8.0%		7.7%		6.8%		2
Häufige Beschwerden Liste: Allergien / Heuschnupfen	6	30.0%		27.3%		27.3%		3
Häufige Beschwerden Liste: Nahrungsmittelsensitivitäten (Gluten etc.)	7	12.1%	25.2%	13.6%	22.7%	19.3%	26.9%	3
Atmungsorgane: Asthma	29	33.4%		27.3%		34.1%		3
Häufige Beschwerden Liste: Bauchschmerzen	8	25.0%		49.4%		33.0%		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%	26.3%	24.7%	38.7%	28.4%	33.4%	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%		34.7%		23.9%		5
Bewegungsapparat: Kiefergelenkschmerzen	21	25.7%	34.2%	36.1%	39.5%	35.2%	35.5%	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%		78.7%		71.6%		8
Bewegungsapparat: Arthrose	16	40.0%		48.9%		50.0%		8
Bewegungsapparat: Osteoporose	17	9.6%	28.9%	12.5%	35.7%	15.9%	35.4%	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%		13.1%		13.6%		10
Haut: Juckreiz	31	15.4%		19.0%		20.5%		10
Haut: Hautausschläge	32	29.3%	16.8%	17.0%	14.8%	26.1%	18.4%	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%		3.7%		8.0%		13
Neurologie: Multiple Sklerose	45	16.6%	11.3%	22.4%	11.8%	15.9%	12.9%	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%		18.8%		10.2%		16
Herz-Kreislauf: Herzinsuffizienz	52	5.2%		8.0%		5.7%		16
Herz-Kreislauf: Herzrhythmusstörungen	53	17.3%	20.5%	18.8%	17.4%	11.4%	17.5%	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%		7.1%		9.1%		17
Augen und Ohren: Erhöhter Augeninnendruck (Glaukom)	60	7.2%	8.4%	4.5%	7.7%	4.5%	8.0%	17
Augen und Ohren: Trockenes Auge	61	10.6%		11.4%		10.2%		17
Stoffwechsel: Erhöhte Blutfettwerte	62	11.8%		9.4%		15.9%		18
Stoffwechsel: Diabetes mellitus	63	14.0%	13.5%	11.1%	14.3%	13.6%	17.0%	18
Stoffwechsel: Hypo- / Hyperthyreose	64	14.5%		22.4%		21.6%		18
Suchterkrankungen: Alkoholabhängigkeit	65	7.1%		8.8%		10.2%		19
Suchterkrankungen: Tabakabhängigkeit	66	11.1%	8.2%	16.5%	11.1%	18.2%	12.9%	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%		39.5%		39.8%		23
Urologie: Nierenbeschwerden	74	22.0%	34.0%	19.6%	29.5%	25.0%	32.4%	23
Schwangerschaft, Geburt, Familienplanung: Kinderwunsch	75	34.3%		42.3%		40.9%		24
Schwangerschaft, Geburt, Familienplanung: Schwangerschaftsbegleitung	76	49.7%	35.3%	59.4%	42.6%	50.0%	38.6%	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%		57.1%		60.2%		25
Genitale/ Brust: Menopausale Beschwerden (z.B. Hitzewallungen)	79	47.5%		50.9%		58.0%		25
Genitale/ Brust: Sexuelle Funktionsstörungen	80	9.2%	29.3%	14.8%	34.4%	11.4%	32.3%	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%		9.1%		18.2%		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%	17.4%	21.9%	19.6%	28.4%	19.2%	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

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