

Uporaba komplementarnih in alternativnih metod zdravljenja med polnoletnimi prebivalci Slovenije

Use of complementary and alternative treatment methods among adults in Slovenia

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Izvleček

Namen: Ugotoviti, kolikšen delež ljudi uporablja komplementarne in alternativne metode zdravljenja (KAMZ), kako je uporaba KAMZ odvisna od spola, starosti, izobrazbe in okolja, v katerem živi posameznik, izmeriti stopnjo naklonjenosti preiskovancev do izvajalcev KAMZ in prikazati najbolj priljubljene alternativne zdravilne pripravke.

Metode: Raziskava je bila presečna in je temeljila na anonimnem vprašalniku, ki smo ga aprila 2009 poslali na dom iz telefonskega imenika naključno izbranemu vzorcu (N = 1000), in sicer polnoletnim prebivalcem Republike Slovenije. Podatke smo statistično analizirali z metodo hi-kvadrat ter t-testom glede na naravo spremenljivk.

Abstract

Purpose: The aim of our research was to determine how many people use complementary and alternative medicine (CAM) and how the use of CAM depends on the gender, age, education, and the living environment of each individual person. We wanted to determine the level of fondness for the providers of CAM and define the most popular alternative medicinal preparations.

Methods: The cross-sectional study was based on an anonymous questionnaire sent to the houses of a randomly selected sample (N=1000) of adults from the Republic of Slovenia in April 2009. The sample was selected using the telephone book. The

Rezultati: Pravilno je odgovorilo in vrnilo ankete 410 (41,0 %) preiskovancev. Ugotovljeno je bilo, da 9,0 % preiskovancev uporablja komplementarne in alternativne metode zdravljenja. Uporaba KAMZ je neodvisna od starosti, spola, izobrazbe in okolja, v katerem živijo. Homeopatu po stopenjski lestvici zaupa 16,9 % ljudi, zdravilcu 11,0 %. Statistično značilno bolj zaupajo homeopatu ljudje s končno srednjo šolo. Najbolj priljubljeni alternativni pripravki so zelišča in čaji (74,4 %), sledijo vitamini in minerali (69,0 %). Homeopatske pripravke uporablja 4,6 % ljudi.

Zaključek: Ugotovili smo 9,0 % prisotnost alternativnega zdravljenja v Sloveniji, če ne upoštevamo zeliščarstva, zdravljenja z rastlinskimi pripravki in čaji ter akupunkture. Hkrati smo ugotovili, da zdravilcu zaupa 11,0 % in homeopatu 16,9 % populacije.

data was statistically analysed using the chi-square method and t-test, depending on the nature of the variables.

Results: The survey was returned and answered correctly by 410 (41.0%) subjects. According to the results, complementary and alternative medicine was used by 9.0% of the subjects. The use of CAM was independent of age, gender, education, and the living environment. According to the point scale, homeopathy was trusted by 16.9% of people, followed by healers who were trusted by 11.0%. From a statistical point of view, homeopaths were much more trusted by people who had completed a secondary education. The most popular medicinal preparations were herbs and different types of tea (74.4%), followed by vitamins and minerals (69.0%). Homeopathic preparations were used by 4.6% of people.

Conclusion: We confirmed a 9.0% presence of alternative medicine in Slovenia, not taking into account herbal medicines, treatments with herbal preparations or tea, and acupuncture. We also have established that 11.0% of the population trust healers and only 16.9% of the population trust homeopaths.

INTRODUCTION

Despite the amazing progress of so-called official medicine, people all over the world still use complementary and alternative medicine (CAM) (1). Alternative medicine is a form of medical treatment used instead of a standard medical approach (2). Complementary medicine represents the non-standard forms of treatment used in combination with standard treatment (3). Among other forms of treatment, CAM also includes chiropractic methods and treatments with herbal preparations and herbal medications (3, 4).

In 2009, greater than one-half of Australians (52.1%) used at least 1 complementary medication not prescribed by a physician (10). In Great Britain, CAM is used by 10%-30% of the population every year (5). In the USA, CAM is used by 40% of the American

population every year (5). Higher income, functional impairment, alcohol use, and frequent physician visits correlate with more frequent visits to alternative practitioners in the USA (6). Italy also indicated a greater consumption of complementary and alternative preparations among women (7). A significant increase has also been noticed among people with higher education (8). In 2008, Croatian statistics showed that among family practice patients, CAM was used more frequently by people 55-64 years of age and by those with higher education (9). The frequency of use of CAM also depends on the disease being treated (10). The findings of a study conducted in Austria, which included breast cancer patients, showed that female users of CAM deal with their disease more actively and more often seek solace in religion (12). A national study in the USA in 1998

revealed that CAM is more often used by patients with higher education and poorer health because such treatment is more compatible with personal values, beliefs, and philosophy of approaching health and life (13).

Despite not having a register of providers of CAM, there were approximately 500 non-registered healers in Slovenia in 2006 (14). It is estimated that between 6% and 49% of Slovenians use CAM (15, 16). According to the Slovenian Study (11), users of Slovenian CAM were middle age with chronic diseases. The assessments of life quality were low, and there were a number of cases diagnosed with anxiety disorders and depression. Many of the users of Slovenian CAM expressed a need for emergency medical attention. These people pay frequent visits to their general practitioners and specialists at the secondary level. CAM users are patients who seek solutions to their medical problems in a more active manner (11). As a small study indicated, Slovenia patients use the following forms of self-care: massage (30.0%); herbs (23.0%); multivitamins (18.0%); energy (14.0%); thermal baths (14.0%); products for spine pain (12.0%); chiropractic services (11.0%); relaxation techniques (8.7%); weight loss programs and diets (7.7%); acupuncture (3.8%); homeopathy (2.0%); and self-help groups (2.9%; 17).

The aim of the current study was to determine how many people in Slovenia use CAM and how the use of CAM depends on gender, age, education, and the living environment of each individual person. We measured the level of fondness for the providers of CAM and tried to define the most popular alternative medicinal preparations. Another aim of the study was to draw attention to the use and approval of alternative and complementary methods among the Slovenian population.

MATERIAL AND METHODS

Type of Study

This cross-sectional study was based on a questionnaire sent by mail to the homes of adult residents

of the Republic of Slovenia and was part of a larger study conducted at the Slovenia-wide level by the Primary Health Care of Gorenjska in cooperation with the Department of Family Medicine of the Faculty of Medicine in Maribor (18, 19). At the end of April 2009, the survey was sent to 1,000 respondents selected randomly from the Slovenian telephone book using a computer program. The sample was stratified according to the number of inhabitants in geographical regions in Slovenia. Therefore, we invited 147 participants from the Celje region, 90 from the Novo Mesto region, 99 from the Kranj region, 252 from the Maribor region, 130 from the Koper region, and 283 from the Ljubljana region.

The research was approved by the National Medical Ethics Committee of the Republic of Slovenia.

Subjects

Only adult residents of Slovenia (age > 18 years) who were randomly selected (N=1000) from the Slovenian telephone book were invited to participate in the research. The anonymous questionnaire on the subject of CAM was sent to their homes. The exclusion criteria included minors (age < 18 years).

Collection of Data

The detailed methodology of the study is reported elsewhere (18, 19). Here we report only on data on the research aim of this article.

We collected data on gender, age, education (primary, vocational, secondary, tertiary, or university education, Master's degree, and PhD), and living environment (rural, suburban, or urban).

The first question concerned the use of CAM in 2008 (chiropractic services, homeopathy, or other). The participants had to answer with a "Yes", "No," or "Don't know." The research considered the following complementary and alternative methods of treatment: chiropractic; homeopathy; and other alternative practices. We excluded acupuncture, medications (non-prescribed), herbal preparations, tea, vitamins, and minerals. The answers were analysed by gender, age, educa-

tion, and the living environment of the respondents. The second question involved trust in CAM (“How much do you trust the following sources of information?”). The participants rated the level of trust on a 1-5 Likert scale, whereby 1 meant that they do not trust the indicated source(s) at all, and 5 meant that they place great trust in the indicated source(s). Those answers which referred to homeopaths or healers were taken into account. Other methods of alternative treatment classified as “Other” were also taken into account.

The third question asked the following question: “Which medicines and preparations for self-medication have you used?” We analysed those answers which related to medicinal plants, tea, and homeopathic medicines.

Statistical Analysis

The data were statistically analysed using SPSS 13.0 (SPSS, Inc., Chicago, IL, USA) using a chi-square test and an independent t-test depending on the nature of the variables. A statistically significant difference was defined as a $p < 0.05$.

RESULTS

We sent out 1000 questionnaires, of which 410 (41.0%) were completed entirely correctly. Of 410 respondents, 216 (52.7%) were men and 191 (46.6%) were women. Gender was not indicated in 3 questionnaires (0.7%). The average age of the patients who indicated their age (398 respondents [97%]) was 51.5 years (SD = 0.5 years), while 12 patients (2.9%) did not reveal their age. Most respondents lived in rural areas (147 [35.9%]), 119 respondents (29.0%) lived in the suburbs, and 142 respondents (34.6%) came from urban areas (Table 1).

Use of CAM

Considering the question regarding the use of CAM in the previous year (2008), we used only those answers classified as “Chiropractic,” “Homeopathy,” and “Other.” Other answers, such as medications, herbal preparations, tea, vitamins, and minerals were not taken into account, as they represent a standard method of treatment. In addition, acupuncture was also not taken into consideration because it is considered a part of the official or standard medicine in Slovenia.

Table 1: Demographic characteristics of the respondents

CHARACTERISTICS	No. of respondents	% of respondents
GENDER		
Men	216	52.7
Women	191	46.6
No data	3	0.7
EDUCATION		
Primary education	50	12.2
Vocational education	66	16.1
Secondary education	146	35.6
Higher education	123	30.0
Master's degree / PhD	19	4.6
No data	6	1.5
ENVIRONMENT		
Rural	147	35.9
Suburban	119	29.0
Urban	142	34.6

Table 2: Use of different alternative forms of treatment

	No.	%
Chiropractic (N=352)	15	3.7
Homeopathy (N=349)	17	4.9
Other (N=398)	12	2.9
Total (N=345)	31	9.0

The "Other" category most frequently included massage, meditation, and help through spiritual guidance; each of these forms of treatment was indicated by two respondents (0.5%). Considering other forms of treatment, individual persons (0.2% each) also mentioned Ayurveda, bioenergy, bioresonance therapy, treatment with a Biopton lamp, self-medication with essential oils, meditation, yoga, inhalation therapy, laser acupuncture, recreation, self-medication with healthy nutrition or diets, self-medication with

honey products, traditional tea drinking, self-care according to one's own judgement, healing through music, and treatment with heated crystal salt.

Complementary and alternative methods of treatment were used by 9% of the research population. Differences in the use of CAM. The differences in the use of alternative medicine by gender, education, and the living environment are presented below in Tables 3-5.

Table 3 demonstrates how the use of alternative medicine differs by gender.

There was no statistically significant difference in the use of alternative medicine based on gender. There was no statistically significant difference in the use of alternative medicine based on education.

Table 3: Use of alternative medicine by gender

	Total		Men		Women	
	No.	%	No.	%	No.	%
Chiropractic	15	4.3	7	3.9	8	4.7
Homeopathy	17	4.9	6	3.4	11	6.5
Other	12	2.9	5	2.3	7	3.7
Total	31	9.1	11	6.3	20	12.0

Table 4: Use of alternative medicine by education

	Total		Primary education		Vocational education		Secondary education		Tertiary education		Master's degree / PhD	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Chiropractic	14	4.0	1	2.7	5	9.3	4	3.1	4	3.6	0	0
Homeopathy	17	4.9	1	2.8	2	3.7	5	3.9	7	6.4	2	11.1
Other	12	3.0	0	0	1	1.5	5	3.4	6	4.9	0	0
Total	31	9.1	2	5.6	4	7.5	11	8.7	13	11.9	1	5.9

Table 5: Use of alternative medicine by the users' living environment

	Total		Rural		Suburban		Urban	
	No.	%	No.	%	No.	%	No.	%
Chiropractic	15	4.3	2	1.7	7	6.9	6	4.7
Homeopathy	17	4.9	7	5.7	5	5.1	5	4.0
Other	12	4.8	7	2.9	2	1.7	3	2.1
Total	31	9.0	11	9.2	9	9.2	11	8.8

There was no statistically significant difference in the use of alternative medicine based on the living environment of alternative medicine users.

No statistically significant difference existed in the use of alternative medicine by gender, education, and the living environment of the respondents.

The data involving the questions about which alternative medicines and preparations the respondents used are presented in Table 6.

Trust in CAM

According to the data acquired, homeopaths are trusted by 16.9% of respondents and 11% trust the healers (Table 7). Considering the education of the respondents, we found no statistically significant difference with respect to their trust in healers, but a statistically significant difference was detected for the case of their trust in homeopaths, who are more trusted by people who completed secondary education ($p=0.024$). Considering trust in healers or homeopaths by gender, age and environment, we found no statistically significant difference.

DISCUSSION

The current research established that Slovenians do not use alternative medicine very often. There was

no statistically significant difference with respect to the educational structure of the respondents. also In addition, we did not find a statistically significant difference with respect to the living environment; alternative medicine was used by 11 respondents (9.2%) from the rural environment, 9 respondents (9.2%) from the suburbs, and 11 respondents (8.8%) from the urban environment, which is comparable with other study findings (17, 18, 20). Herbal medicine, vitamins, and minerals were not considered to be a form of alternative medicine. If herbal medicine, vitamins, and minerals were considered a form of alternative medicine, the total share would have been significantly higher, as demonstrated by the answer to the question involving which medications and preparations the respondents used. As many as 74.4% of the respondents reported using medicinal plants and tea. Of the respondents, 69% selected minerals and vitamins, and 4.6% used homeopathic medicines. Other alternative methods of treatment, which were mentioned by 12 respondents (2.9%), were somewhat more questionable, as follows: massage; meditation; and help through spiritual guidance, each of these was indicated by 2 respondents (0.5%). Considering other forms of treatment, individual persons (0.2% each) also mentioned Ayurveda, bioenergy, bioresonance therapy, treatment with a Bioptron lamp, self-medication with essential oils, meditation, yoga, inhalation therapy, laser acupuncture

Table 6: Alternative medicines and preparations the respondents used

Used alternative preparations	No.	%
Medicinal plants and tea (N=379)	305	74.4
Vitamins and minerals (N=377)	283	69.0
Homeopathic medicines (N=341)	19	4.6

Table 7: The scale of trust in homeopaths and healers

Source of health information	Scale of Trust									
	1		2		3		4		5	
	No.	%	No.	%	No.	%	No.	%	No.	%
Homeopath (N=254)	96	37.8	49	19.3	66	26.0	31	12.2	12	4.7
Healer (N=283)	125	44.2	64	22.6	63	22.3	26	9.2	5	1.8

ture, recreation, self-medication with healthy nutrition or diets, self-medication with honey products, traditional tea drinking, self-care according to one's own judgement, healing through music, and treatment with heated crystal salt. Recreation, self-medication with healthy nutrition and diets, treatment with honey products, and massages are not typical methods of alternative medicine.

As in a number of previous studies (9, 10, 11, 17, 19, 21), our research also showed that CAM is more often used by women and those with higher education; however, the difference was not statistically significant. There was almost no difference in the frequency of use of CAM between the rural, suburban, and urban communities.

In addition, greater than one-third of respondents expressed complete distrust, which can be attributed to the negative attitude of Slovenian official medicine towards healing practices (22). The research from 2008 established that 81% of the Slovenian population understand the term "alternative medicine" as a method of treatment which is not recognized by official medicine (20). Alternative medicine and everything related to alternative medicine (homeopathy and healing practices) is often viewed negatively in Slovenia.

Despite the above, we still found that 12.2% or 9.2% of the population trust homeopaths or healers, and 4.7% or 1.8% completely trust homeopaths or healers. Taking into account that Slovenia lacks appropriate professional and legal regulation of healing practices and offers no recognized education program, thus enabling individuals with no adequate medical education to practice alternative medicine without any supervision, such a level of trust in healers might be alarming if the healer or homeopath convinced the patient not to undergo standard treatment or prescribed a medicine that would do more harm than good.

The main strength of this study was the random sampling that was stratified to all Slovenian regions. The study also had several limitations. In comparison to the demographic characteristics of the Slovenian

population, there were more men in the sample and the average age of the respondents was higher (23). Nevertheless, we should take into account that we included only people > 18 years of age. Also, the education status of our sample was slightly higher than the entire population (23). The response rate could have been higher, but is common and expected for postal surveys. Another limitation was the use of a telephone directory, as we were unable to access individuals without a telephone and also those that were not telephone account holders in the household. This could also be a source of selection bias. Because the questionnaire was self-administered, it is possible that participants misunderstood some of the questions, which should be taken into account when interpreting the results

Slovenians occasionally seek alternative methods of treatment, such as chiropractic, homeopathy, and a number of other methods. Slovenians like herbal preparations, but only a small number of Slovenians use homeopathic preparations. The decision of adult Slovenians to use alternative medicine does not depend on gender, education, or the living environment. Fondness for homeopathy and healers is lower than anticipated, which can be attributed to the negative attitude of the Slovenian medical profession towards alternative medicine. The patients cannot be prevented from choosing alternative methods of treatment, but it is of utmost importance that the physicians ask their patients about the eventual use of CAM when establishing their social history and history of self-medication.

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