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Opinions and self-reported health status of Italians seeking homeopathic treatment

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The use of homeopathy is increasing worldwide. This multi-centre cross-sectional study aims to describe the opinions and self-reported health status of a sample of Italian people seeking homeopathic care. A self-administered questionnaire including socio-demographic characteristics, knowledge and opinions about homeopathy, personal experience with homeopathy, and, self-reported health status (SF-12), was administered to a sample of people who had sought homeopathy.

Of a possible 1229 individuals invited to participate, 1223 did so. The majority of the participants were female, young (mean age 42 years), well educated (mean 13 years of education). The reason for seeking care was for either physical or emotional conditions. Most participants had fair to good knowledge of homeopathy, and the self-experienced effect (subjective judgment on efficacy) was good regardless of the type of health condition reported. The Physical Component Summary (PCS-12) scores were similar to the general Italian population, but the Mental Component Summary (MCS-12) scores were lower in all relevant strata examined.

This study provides information on the characteristics of people seeking homeopathic care, in particular the results of the SF-12 self-reported health status evaluation.

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Introduction

Complementary and alternative medicine comprises a broad spectrum of different practices, beliefs, and preparations including vitamin, mineral, plant or herbal, naturopathic and homeopathic preparations.[1] Although the evidence regarding the efficacy of most of these practices is scanty and debatable, indeed no final agreement has yet been reached either on the question of efficacy or on the question of possible mechanisms of action,[2–6] the use of complementary and alternative medicine is increasing worldwide, as documented by the World Health Organization and others.[7–9] Of all forms of complementary and alternative medicine, homeopathy is one of the most popular and widely used; several studies have demonstrated its wide use by the general population and by patients with chronic disease,[10,11] and high levels of satisfaction with treatment have also been documented.[12]

In Italy, the National Health System does not reimburse the cost of complementary and alternative medicine, including homeopathic treatment, and unlike some other countries there are no homeopathic clinics. A recent survey showed that about 8000 physicians, mainly general practitioners and paediatricians, prescribe homeopathic medicines, and about 11 million people use homeopathic medicines.[13] In addition, the Italian national register of Classical Homeopathic Physicians has 350 members (SIMO, the Italian Society of Homeopathic Physicians and FIAMO, the Italian Federation of Homeopathic Physicians). Between 2003 and 2004, the Italian market for homeopathic remedies increased by 6%%A national survey conducted by ISTAT (Italian Institute of Statistics)[14] on a sample of 70,000 Italian people showed that between 1991 and 1999 the percentage of

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the population using complementary and alternative medicine rose rapidly. In particular, the use of acupuncture increased from 2.1% to 2.9%, phytotherapy from 3.6% to 4.8%, and homeopathy from 2.5% to 8.2%. A more detailed survey on a sub-sample of the ISTAT survey found that 20% of the general population in Tuscany reported having used complementary and alternative medicine at least once in the 3 years before the interview.[15]

This article reports the experience of a group of homeopathic physicians belonging to the Belladonna group,[16] a not for profit association for the diffusion of homeopathic treatment based in the northern and central region of Italy. Belladonna is part of the faculty of the Homeopathic School of Verona[17] and has been involved in evaluative research in the field of homeopathy for several years.[5] All members of the Belladonna group have a degree in Medicine, 3 years' training in classical homeopathy, and have been in clinical practice for at least 10 years. Physicians in the Belladonna group prescribe single homeopathic medicine only for the patient at the first consultation, following the principles of classical homeopathy.

Because little data is available on the profile of people using homeopathy in Italy, and no data has been published on the opinions and health status of homeopathic users, the Belladonna group decided to carry out a survey on these aspects. The core of the research was to collect information on homeopathic patients visiting the clinic in order to better understand their socio-demographic characteristics, opinions, level of knowledge and health status, and to accumulate data that would provide the basis for further discussion on homeopathy.

Materials and methods

Between September and December 2003, all eight homeopathic physicians of the Belladonna group distributed a standard questionnaire to all adults (over 18 years of age) seeking homeopathic care at their consulting rooms. A total of 1229 subjects were asked to participate.

Questionnaire

After a review of the literature, a preliminary questionnaire was drafted, discussed and reviewed by experts not directly involved in the study. The preliminary version was then tested on a small sample of patients to evaluate difficulties in answering the questions, with a debriefing interview to test face validity. The final version of the self-administered questionnaire contained 32 questions in four sections. The first section covered socio-demographic characteristics including sex, age, education, marital status, and self-reported health conditions. The health conditions reported by participants were categorised for the analysis into six 'degrees' of problem, ranging from physical-only, emotional-only, to both physical and emotional. The second set of questions collected information on the patient's knowledge of complementary and alternative medicine with a particular emphasis on homeopathy (ie knowledge of principles of homeopathy, source of information, etc.). The third section investigated personal experience with homeopathy (ie use of homeopathy, self-experienced effect, etc.). All questions were closed, with pre-coded multiple choice answers.

The last section comprised the short-form health survey (SF-12). The SF-12 is a multi-purpose, generic, short health survey which produces two summary measures of physical and mental aspects of health, based on 12 questions. It was originally developed in the USA as a shorter alternative to the SF-36 for use in large samples to check the yield of medical interventions on subjective aspects of health and quality of life.[18] It was translated into several languages in the context of a wide international project and validated in several independent samples in Europe including Italy.[19–23] Empirical studies indicate that the 12-item version of the two summary scales (PCS-12-Physical Component Summary, and MCS-12-Mental Component Summary) correlate very well with SF-36. Both summary scores are standardised to have an expected mean of 50 and standard deviation of 10, higher scores indicate better health perception. Reference data from a large random sample of Italians is available for historical comparison.[23] Table 1 summarises the contents of the Physical Component Summary and the Mental Component Summary.

The sample

The questionnaire was administered to a sample of people seeking care at the participating physicians' consulting rooms. All consecutive patients were approached directly by physicians or their assistants who introduced the survey and asked for their participation. The only eligibility criteria were willingness to participate, and ability to read and understand Italian; no other selection criteria were applied. Those who gqucia were asked to complete the questionnaire before the consultation. Self-administration was recommended, but physicians or their assistants were allowed to explain questions if necessary. It is not necessary either to ask for ethical approval, or to request informed consent, in Italy, for this kind of study. Nevertheless, a simple presentation of the aims of the study was given on the first page of the questionnaire, and participants were guaranteed that questionnaires would remain anonymous and data were pooled for analysis.

Statistical analysis

Clinical and demographic variables were summarised using descriptive statistics. There were some discrepancies in the tables due to missing data.

Table 1 Significance of summary scores of SF-12

Physical Component Summary—PCS12
This score measures physical health through six questions exploring the following domains of health-related quality of life:

Physical function

- Do moderate activities such as moving a table, pushing a vacuum cleaner, bowling, or playing golf
- Climb several flights of stairs

Physical role

- Accomplished less than would like
- Be limited in the kind of work or other activities

Bodily pain

- How much pain interferes with normal work

General health

- Rating of health

Mental Component Summary—MCS12
This score measures mental health through six questions exploring the following domains of health-related quality of life:

Vitality

- Have a lot of energy

Social functioning

- Physical health and emotional problems interfere with social activities

Emotional role

- Accomplished less than would like
- Do work or other activities as carefully as usual

Mental health

- Felt calm and peaceful
- Felt downhearted and blue

Associations between answer and socio-demographic variables were estimated using chi-square test, $p<0.01$ was considered statistically significant. The mean differences in the SF-12 scores were expressed as mean standardised differences (effect size, ES). The ES represents the difference between two groups (in this case people recruited in the study and normal Italian population), enabling assessment of the difference in terms of SD units. Substantial differences between samples are expressed by value >0.4 or < -0.4.[24]

Results

Out of a total of 1229 subjects invited to participate, 1223 actually took part. The recruitment of subjects was completed in 4 months, during a total of 311 days of medical activity. The number of patients recruited per physician varied from 38 to 287, in a recruitment period of 19–52 days.

Selected socio-demographic characteristics are outlined in Table 2. The majority of the patients were female, young, mean age of 41.7 years, and a mean of 12.9 years of education. For most patients (79.2%) this was not the first contact with the recruiting doctor. Most participants visited the homeopathic doctor for only one physical problem; a large percentage (34.6%) reported no particular clinical symptoms or problems but only general health complaints (recorded as health promotion, prevention). No statistical difference emerged between male and female populations, expect in the marital status of participants in the female group which was more predominantly single, divorced or widowed.

Table 3 reports data on knowledge and personal experience with homeopathy. Most participants declared they had fair, good or very good knowledge of homeopathy. The most common sources of information were friends, relatives or acquaintances (43.1%)

Table 2 Characteristics of the population gquciruited

	Overall no. 1223	Male no. *265*	*Female no. 954*	*P-value*
No. females (%)	954 (78.28)	265 (100)	954 (100)	
Age (years)				
Mean (sd)	41.71 (11.51)	42.10 (11.66)	41.57 (11.37)	
Range	15–84	18–81	15–84	
18–24 years	70 (5.74)	18 (6.82)	51 (5.36)	
25–44 years	750 (61.53)	155 (58.71)	594 (62.46)	0.5543
45–64 years	341 (27.97)	80 (30.30)	260 (27.34)	
>65 years	58 (4.76)	11 (4.17)	46 (4.84)	
Education (years)				
Mean (sd)	12.87 (3.91)	13.16 (3.59)	12.92 (3.99)	
Range	1–24	2–24	1–24	
Primary school	42 (3.47)	7 (2.65)	35 (3.69)	
Secondary school	231 (19.10)	54 (20.45)	177 (18.69)	0.8011
General certificate of education	623 (51.48)	135 (51.13)	488 (51.53)	
University	314 (25.95)	68 (25.75)	247 (26.08)	
Marital status				
Single	288 (23.84)	76 (29.23)	212 (22.29)	
Living together/married	785 (64.98)	175 (67.31)	611 (64.24)	0.0001
Divorced	36 (2.98)	1 (0.38)	37 (3.89)	
Widowed	99 (8.19)	8 (3.08)	91 (9.57)	
First contact no. (%)	947 (79.18)	214 (81.99)	733 (78.40)	0.2057
Self-reported health conditions no. (%)				
One physical problem	340 (27.80)	87 (32.83)	253 (26.52)	
Two or more physical problems	175 (14.31)	32 (12.08)	143 (14.99)	
One emotional problem	101 (8.25)	22 (8.30)	78 (8.18)	0.2021
One physical and one emotional problem	93 (7.60)	21 (7.92)	71 (7.44)	
More physical and one emotional problem	91 (7.44)	13 (4.91)	78 (8.18)	
No physical and/or emotional problems*	423 (34.58)	90 (33.96)	331 (34.70)	

*No reported medical condition or problem or generic statement like 'general well being'.

Table 3 Information and personal experience of homeopathy

	Overall no. (%)	*Male no.* (%)	*Female no.* (%)
Total sample	1223	265	954
Knowledge of homeopathy			
Very limited–little	449 (36.95)	113 (42.64)	336 (35.37)
Fair	492 (40.49)	103 (38.87)	389 (40.95)
Good–very good	274 (22.55)	49 (18.49)	225 (23.68)
Sources of information on homeopathy			
Journal, newspaper, television, books, course	692 (31.54)	108 (24.43)	584 (33.33)
Friends, relatives, acquaintances	945 (43.07)	215 (48.64)	730 (41.66)
Doctor, Pharmacist, nurse, other therapist	557 (25.38)	119 (26.92)	438 (25.00)
Homeopathic doctor consulted in the last 2 years	1026 (85.64)	217 (84.11)	809 (86.06)
Homeopathic medicine used in the last 2 years	1036 (84.71)	222 (86.38)	812 (87.59)
Users of homeopathy	1036	222	812
Reasons for use			
Less adverse reactions	291 (29.54)	85 (40.09)	206 (26.65)
Inefficacy of conventional medicine	295 (29.95)	48 (22.64)	247 (31.95)
Confidence in 'natural' treatment	332 (33.71)	59 (27.83)	273 (35.32)
Advice of friends, acquaintances and relatives	54 (5.48)	19 (8.96)	35 (4.53)
Advice of the druggist	13 (1.32)	1 (0.47)	12 (1.55)
Judgement on efficacy			
Little or no effect	46 (4.50)	20 (9.17)	26 (3.23)
Fairly good	568 (55.52)	132 (60.55)	436 (54.16)
Very good	409 (39.98)	66 (30.28)	343 (42.61)
Judgement on self-experienced effect by self-reported health conditions*			
One physical problem	305 (92.14)	75 (89.28)	230 (93.12)
Two or more physical problem	163 (95.88)	25 (83.33)	138 (98.57)
One emotional problem	89 (94.68)	20 (90.90)	69 (95.83)
One physical and one emotional problem	87 (96.67)	19 (95.00)	68 (97.14)
More physical and one emotional problem	91 (98.90)	12 (92.30)	78 (100.00)
No physical and/or emotional problem	243 (94.19)	47 (88.68)	196 (95.61)

*The options 'fairly good' and 'very good' have been pooled for this analysis.

Table 4 SF-12 Health-related quality of life results

	PCS-12	*Effect size***	*MCS-12*	*Effect size***
Study population	50.34 (7.90)		40.96 (11.05)	
Standardised Italian population†	50.03 (9.49)	0.0380	50.07 (9.98)	0.9128
Male study population	50.42 (7.70)	0.0740	42.69 (10.14)	
Standardised Italian population†	51.07 (8.68)		51.53 (9.09)	0.9720
Female study population	50.31 (8.00)		40.48 (11.24)	
Standardised Italian population†	49.07 (10.09)	0.1228	48.70 (10.57)	0.7776
Self-reported health conditions				
One physical problem	50.39 (7.96)		43.01 (10.46)	
Two or more physical problems	50.24 (7.55)		42.43 (10.18)	
One emotional problem	52.60 (6.59)	na	36.72 (10.67)	na
One physical and one emotional problem	52.21 (8.06)		36.35 (11.26)	
More physical and one emotional problem	50.88 (8.19)		41.03 (11.15)	
No physical and/or emotional problem	49.23 (8.18)		40.50 (11.38)	

**For the Effect size calculation the normed Italian population is the reference group.
†Reference data from a large random sample of Italians are available for historical comparison (ISTAT).
na = data not available.

followed by the media (31.5%), and doctors or druggists. Although females in general were more informed than males (23.7% vs 18.5%, respectively, for good or very good knowledge of homeopathy) the difference is not statistically significant. Age and education were statistically significantly correlated with reported better knowledge, knowledge increased with age ($p<0.009$), but decreased with education ($p<0.0001$) indicating better knowledge in groups with a lower level of education. People with a history of homeopathic visits (ie not the first visit) and people who indicated fewer self-reported conditions were found to have a better knowledge of homeopathy (for both $p<0.0001$).

Of those who had already received homeopathic treatment, the most common reason for using this kind of medicine was 'confidence in natural treatment' (33.7%), 'ineffectiveness of conventional medicine' (29.95%), or 'less adverse reactions' (29.5%). Regarding subjective opinions about the self-experienced effect of homeopathy, 95.5% of people using homeopathy (85% of sample studied) declared that homeopathy was effective or very effective. This percentage is not related to the number of visits, but to the sex of the participant, with a high proprotion of female respondents 'very good' efficacy (30.3% for males vs 42.6% for females). The judgment on self-experienced effect remains high, around 90%, in each of the self-reported health conditions reported by participants. Self-experienced effect was evaluated statistically significantly better by females ($p<0.0001$), and by people who had already had experience with homeopathic physicians ($p<0.0001$).

The two summary scores, PCS-12 and MCS-12 from the SF-12 questionnaire, are reported in Table 4, where data are available, Italian reference figures are shown for comparison. In general the PCS-12 scores were similar to the Italian population (around 50), but the MCS-12 scores were somewhat lower—indicating a worse self-assessed metal health state.

This difference is found for the whole population (40.96 vs 50.07, respectively for the homeopathic population and reference population), or the female and male sub-groups (42.69 vs 51.53 in the male group, and 40.48 vs 48.70 in the female group). The greatest differences between the study population and the normal Italian population were observed for MCS. ES = 0.91 for the whole population, ES = 0.97 for the male population, and ES = 0.77 for the female population.

Discussion

To our knowledge this is the first survey carried out in Italy on a sample of homeopathic users for the purpose of investigating opinions on homeopathy, and assessing the self-reported health status.

The sample collected is the entire population seeking care at the participating homeopathic centres in the defined period, selection criteria were applied and only six people refused to take part. The characteristics of the participants showed users of homeopathy tend to be female, young, and well educated, most had previous experience of homeopathy. This population is younger and more educated with respect to a non-probabilistic Italian convenience sample of people seeking care at the office of a GP or outpatient clinic recruited for a randomised clinical trial.[25] A variety of self-reported health conditions, either physical or emotional, were given as the reason for the consultation. Contrary to common belief, about 42% of participants reported only physical problems, only 8% reported only emotional problems. The majority of the participants visited the homeopathic physician for no specific physical or emotional complaint, but for general health concerns such as the promotion of health or prevention of disease. The variety of self-reported health conditions implies that confidence is generally given to homeopathy for a number of different clinical problems, and not just emotional ones.

Most of the sample reported a knowledge of homeopathy ranging from fair to good or very good, one third said they had only very limited or poor

knowledge indicating the need for future education activities. The principal source of information was friends or relatives, as documented elsewhere.[26] One third of the sample also indicated journals, newspaper or television as a source of information, this reflects the increased interest of the media in homeopathy. Confidence in 'natural' treatment, lack of effectiveness of conventional medicine, and the idea that homeopathy causes less adverse reactions than traditional medicine, were the principal reasons for choosing it. In general, the self-reported effect of homeopathy was very good, always more than 90%, regardless of the type of health condition reported.

In this sample of people consulting a homeopathic physician, the SF-12 Physical Component Summary score was no different from the reference Italian population, with little variation in relation to sex and self-reported health conditions. In contrast, the SF-12 Mental Component Summary score differed substantially from the reference Italian population (40.96 vs 50.07 in the overall sample); this difference–unexpected and considerable (one standard deviation)–is present in all the relevant strata examined, even in the sub-group of people without any physical and/or emotional problem. The fact that people seeking homeopathic care have a low self-assessment of mental–emotional health calls for further evaluation and discussion. Unfortunately, no data are available in literature to permit comparison of these results with those of others, as the SF-12 Health Status has rarely has been used in this setting. A small sample of patients with migraine surveyed using the SF-36 Health Status (the long version of the SF-12) showed similar trends for mental scores with respect to the reference Italian population.[5] Given that the study is cross-sectional and observational, and the sample (ie predominantly female, young and well educated) was found to have physical health similar to the reference Italian population, the low self-perception in mental–emotional health does not allow any causal inference, but suggests that this category of people finds a health care alternative in homeopathic remedies that better fits their opinions and beliefs. As suggested by Sirois, health-awareness behaviour is associated with the complementary and alternative medicine used.[27] Therefore this population, with apparently physical health status comparable to the reference Italian population, is seeking a treatment that is better suited to the emotional status. If confirmed, these results may help in understanding the reasons people turn to homeopathic medicine.

This survey has some limitations. In particular, the study design and sampling strategy may have led to the selection of a group not representative of all people seeking homeopathic care. This was probably due to a selection bias introduced by the recruitment strategy: only people referring to a selected group of homeopathic physicians were invited to participate. Secondly, given the observational nature of this study the findings were not compared to a control group, and the study design does not allow inferences to be made. For instance deviations from the general population values might be found in individuals seeking other forms of treatment.

In conclusion, considering the ever increasing number of people seeking homeopathic treatment in spite of the controversy surrounding homeopathy in literature, there is a need for further research programmes in order to better understand patients' expectations and the true benefits of homeopathy.

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