

Characteristics of Patients at a Complementary Medicine Clinic in Beer Sheva: Summary of the First Two Years of Operation

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Abstract

Background: “Complementary medicine” incorporates several methods of treatment, all of which aim to promote the health and quality of life of the patient. Public interest and demand for complementary medicine services have increased in recent years in Israel, as they have throughout the western world.

Objective: To characterize patients attending the Complementary Medicine Clinic in southern Israel at the completion of its first 2 years of operation.

Methods: Data for 398 patients selected at random from 4,400 patients treated in the clinic were collected retroactively from the patients' charts.

Results: Of those who visited the clinic, 68% were women with an average age of 49 years. Patients attending the clinic had higher rates of hypertension (20%), diabetes (6%) and heart disease (7%) than the general population of patients insured at the Clalit Health Services in the southern region. In addition to musculoskeletal problems (47%), the other most common complaint was emotional problems (13%) such as tension and anxiety. Acupuncture and Shiatsu were the most commonly used types of treatment (61%). Homeopathy was used by 7%. Among patients with musculoskeletal problems, there were significantly more men than women ($P=0.02$), the mean age was higher ($P=0.07$), and more of them were referred by friends or family ($P=0.06$) than those with other problems.

Conclusions: Characterizing patients attending a complementary medicine clinic is important for the planning of marketing and resource management, and can assist primary care physicians in decisions regarding the referral of patients to this type of healthcare.

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throughout the western world [1,4–6]. All branches of complementary medicine stress the need to listen and relate to patients' complaints. In addition, complementary medicine offers a pleasant and calming therapeutic touch, as compared to treatments used in conventional medicine that may at times be discomforting and even painful. Patients perceive complementary medicine as an approach that views health and therapy in the broader context of body and soul, as reflected in changes in daily lifestyle such as healthy diet and physical activity [7]. This form of healing is complementary rather than an alternative to conventional medicine since bodily harm may be severe enough to require conventional physical intervention, such as surgery, intensive care and/or medication. Nonetheless, total healing can be achieved in alliance with complementary medicine and is manifested by an improvement in the quality of life on all levels and not merely in the elimination of physical symptoms.

A nationwide telephone survey in the United States showed that 34% of the participants had utilized complementary medicine in the previous year and a third had visited a complementary medicine practitioner [4]. There is enormous economic potential in the fields of complementary and alternative medicine. In 1990, residents of the USA paid about 425 million visits to these practitioners (compared with 338 million visits to primary care physicians in the same period). Total expenditures by Americans for non-conventional medicine for that year were estimated to be 13.7 billion dollars [5].

The popularity of complementary medicine in Israel is reflected in the opening of complementary medicine clinics by the health funds. Clalit Health Services runs about 20 clinics for complementary medicine throughout the country.

The aim of this study was to characterize patients attending the Complementary Medicine Clinic in Beer Sheva at the completion of its first 2 years of operation. We assessed the demographic characteristics of the patients, their medical complaints, and the types of therapy offered and used.

Methods

The Complementary Medicine Clinic of Clalit Health Services in Beer Sheva, which serves the southern part of Israel, was

Complementary medicine includes several methods of treatment, all of which aim to promote health and quality of life [1]. Public interest and demand for complementary medicine services have increased in recent years in Israel [2,3] as well as

opened in December 1997. During the first 2 years of its operation about 4,400 patients visited the clinic. Patients who come to the clinic are diagnosed by doctors who conduct an initial screening. These doctors also follow the patients and are responsible for liaison with the patient's primary care physician. Treatment is provided in the clinic by certified therapists with appropriate training. The therapy offered includes acupuncture, reflexology, Shiatsu, chiropractics, biofeedback, naturopathy, herbal medicine, Feldenkreis, Bach flowers, homeopathy, osteopathy, and medical hypnosis.

For 1998, the first year of its operation, the total income of the clinic was US\$260,000, which increased to \$408,475 in 1999. This money was paid by the patients and not by health insurers. Only 2.9% of patients who came for initial screening did not receive complementary treatment.

Study population

The study population of 398 comprised about 10% of the 4,400 patients who visited the Clalit Health Services Clinic in Beer Sheva during the first 2 years of its operation (December 1997 – December 1999). Only patients aged 20 or above were included. The sampling was random, with every tenth patient on the roster of patients being included in the sample.

Checklist

A 45-item checklist was used for a retrospective collection of data from patients' charts and computerized records. The questionnaire included:

- Sociodemographic information – gender, age, year and country of birth, family status, health fund membership, branch clinic, type of medical insurance.
- Health status – chronic co-morbidity, previous surgery, family medical history, medications and smoking.
- Visits to the clinic – primary complaint, primary diagnosis, recommended therapy.

Index of independent variables

Three independent variables were chosen, which were grouped as categorical variables according to their frequency and data-processing constraints:

- Primary complaint (according to the patient): a) musculoskeletal, b) emotional, c) other
- Primary diagnosis (according to the doctor): a) musculoskeletal, b) neurological/psychological, c) other
- Recommended therapy (according to the doctor): a) acupuncture/Shiatsu, b) homeopathy, c) other

Due to the high degree of correlation between the primary complaint and the primary diagnosis ($P < 0.00001$), the data for diagnosis, as defined by the doctor providing the treatment, are presented first.

Statistical analysis

The data were processed with the SPSS software (Statistical Package for the Social Sciences, SPSS Inc. Chicago). The chi-square test was used to test categorical variables and ANOVA

was used for continuous variables. A multivariate logistic regression test was used to test explanatory models for the primary diagnosis. The primary diagnosis variable was grouped into a dichotomous variable, musculoskeletal problems or neurological/emotional problems because some of the cells were less than 25% for χ^2 analyses. Statistical significance was set at $P < 0.05$ throughout.

Results

The sociodemographic characteristics of the study population are presented in Table 1. Of 398 patients, 32% ($n = 123$) are men and 43% ($n = 171$) were born in Israel. The mean age is 49 years, with a standard deviation (SD) of 15. The majority – 53% ($n = 209$) – lives in the city of Beer Sheva. All the patients have medical insurance; 99% ($n = 392$) are insured by the Clalit Health Services Fund, 83% ($n = 329$) of whom have extended medical insurance.

Patient health status

Table 2 details the medical characteristics of the study population. Twenty percent ($n = 75$) have hypertension, 6% ($n = 24$) have diabetes, 7% ($n = 26$) have heart problems and 47% ($n = 178$) take medication regularly. Nineteen percent ($n = 70$) are smokers: 29% smoke 1–9 cigarettes a day, 56% smoke 10–20 cigarettes and 15% smoke 21 cigarettes or more a day.

Characteristics of the clinic visit

Thirty-one percent of the patients ($n = 121$) were referred to the clinic by a doctor or nurse, 24% ($n = 95$) came at their own initiative following recommendation by a friend or family member, 11% ($n = 46$) as a response to advertising, 9% ($n = 37$)

Table 1. Sociodemographic characteristics of the study population ($n = 398$)

	No.	(%)
Gender		
Male	123	(32)
Female	267	(68)
Country of birth		
Israel	171	(43)
Asia/Africa	115	(29)
Other	111	(28)
Place of residence		
Beer Sheva	209	(53)
Beer Sheva suburbs	78	(20)
Other	111	(27)
Family status*		
Married	190	(72)
Single	50	(19)
Separated/divorced	24	(9)
Age (mean \pm SD)	49 \pm 15	

* High level of missing data

Table 2. Health status of the study population (n = 398)

	No.	(%)
Co-morbidity		
Hypertension	75	(20)
Diabetes mellitus	24	(6)
Heart disease	26	(7)
Obesity	23	(6)
Cancer	8	(2)
Family medical history		
Hypertension	49	(13)
Diabetes mellitus	47	(13)
Heart disease	41	(11)
Obesity	3	(1)
Cancer	26	(7)
On medication	178	(47)
Active smoker	70	(19)

came as part of their extended medical insurance coverage and 4% (n = 15) came for other reasons.

Eighty-eight percent (n = 349) saw the screening physician only once, 12% (n = 46) visited twice and 0.75% (n = 3) visited three times.

Of the primary complaints, 47% (n = 181) were related to musculoskeletal problems, 13% (n = 50) to emotional problems (anxiety/tension) and 40% (n = 152) to other problems (ear/nose/throat, breathing, digestion, skin, etc.).

Of the primary diagnoses 44% (n = 168) were related to musculoskeletal problems, 21% (n = 82) to neurological/emotional problems and 35% (n = 132) to other problems (ENT, breathing, digestion, skin, etc.).

Acupuncture and Shiatsu were the most commonly used treatments (61%, n = 240), followed by homeopathy (7%, n = 29), and other types of therapy (hypnosis, reflexology, Feldenkreis, chiropractic, osteopathy, biofeedback, Bach flowers, and neuropathy) (32%, n = 127).

Characteristics of the primary diagnosis [Table 3]

A statistically significant association was found between the primary diagnosis and gender ($P=0.02$, $df=2$, $\chi^2=8.30$). Musculoskeletal problems were diagnosed more frequently in men than in women, while neurological and emotional problems were diagnosed more often in women.

No significant associations were found between the primary diagnosis and source of referral ($P=0.06$), age ($P=0.07$), country of birth ($P=0.23$), place of residence ($P=0.28$), hypertension ($P=0.57$), medications ($P=0.79$), or cigarette smoking ($P=0.96$).

Logistic regression analysis [Table 4]

Variables that were statistically significant in the univariate analyses were introduced into the regression model, as were variables that were close to statistical significance on univariate

Table 3. Variables associated with the primary diagnosis

	Primary diagnosis [No. (%)]			P
	Musculoskeletal (n = 168)	Neurological/ emotional (n = 82)	Other (n = 132)	
Gender				
Male	65 (55)	22 (18)	32 (27)	0.02
Female	99 (39)	60 (24)	96 (38)	
Country of birth				
Israel	65 (40)	33 (20)	49 (47)	0.23
Asia/Africa	53 (47)	29 (26)	20 (19)	
Other	49 (47)	31 (27)	35 (34)	
Place of residence				
Beer Sheva	92 (46)	38 (19)	72 (36)	0.28
Beer Sheva suburbs	38 (50)	17 (22)	21 (28)	
Other	38 (36)	27 (26)	39 (38)	
Source of referral				
Medical staff	50 (44)	30 (26)	35 (30)	0.06
Friends/family	48 (52)	10 (11)	34 (37)	
Other source	68 (40)	41 (24)	59 (35)	
Hypertension				
Yes	30 (40)	15 (20)	30 (40)	0.57
No	136 (45)	66 (22)	102 (34)	
On medication				
Yes	75 (42)	39 (22)	64 (36)	0.79
No	90 (46)	41 (21)	66 (34)	
Active smoker				
Yes	32 (46)	15 (22)	23 (33)	0.96
No	134 (44)	64 (21)	105 (35)	
Age (mean \pm SD)	51 \pm 14	47 \pm 16	49 \pm 15	0.07

Table 4. Logistic regression – primary diagnosis

	B	SE	Pv	Exp (B)	95% CI
Gender	0.559	0.300	0.047	1.82	1.007, 3.297
0 Female					
1 Male					
Source of referral*	1.039	0.422	0.01	2.83	1.237, 6.462
0 Else					
1 Family/friend					
Source of referral*	0.004	0.301	0.88	1.04	0.570, 1.191
0 Else					
1 Other source					
Age	0.017	0.010	0.07	1.02	0.998, 1.037

* Reference group = medical staff

analyses and had logical or clinical relevance to the model. The explanatory model showed that more men than women had musculoskeletal problems ($P=0.047$; relative risk = 1.82, confidence interval = 1.007, 3.297), and that patients who are referred by family or friends have more musculoskeletal problems than those who are referred by others ($P=0.01$, RR = 2.83, CI = 1.237, 6.462).

ENT = ear/nose/throat

Discussion

In this study we characterized patients attending the Complementary Medicine Clinic in Beer Sheva, Israel. Our finding that women constituted two-thirds of the visits to the clinic concurs with other reports from Great Britain [8] and Australia [6], although other studies conducted in Israel reported no difference in the number of visits made by men and women [3,9]. Patients at the Complementary Medicine Clinic had higher rates of chronic diseases such as hypertension (20%), diabetes (6%), heart disease (7%) and obesity (6%) compared with the general population of patients aged ≥ 20 insured by the Clalit Health Services in southern Israel: hypertension (8.2%), diabetes (3.7%), heart disease (3.5%) and obesity (3.7%). In addition, a higher rate of chronic diseases was also found among family members of clinic patients.

There are five possible explanations for the finding that more people with chronic disease visit the Complementary Medicine Clinic [1]:

- Patients report that the consultation time is lengthy and satisfying as compared to the short visits with doctors in the regular health services.
- Greater attention is paid to the patient's personality and personal experience. Practitioners of complementary medicine base their therapy primarily on patients' descriptions of and attitudes to their complaints, including psychological reactions to the illness.
- Involvement of the patient as a partner in care who participates in the choice of therapy.
- Therapists in the Complementary Medicine Clinic offer hope to patients who come to the clinic following disappointment or lack of satisfaction with conventional medicine. This hope is generated through attempts to treat the illness and to improve emotional aspects, energy levels, coping styles and other aspects that contribute to quality of life.
- Complementary medicine provides seemingly logical explanations for chronic conditions, such as describing the illness as the result of environmental factors or the physical expression of an emotional disturbance.

Most visitors to the clinic were recommended by health fund medical staff (31%) or by friends or family members (24%). The fact that only 11% came as the result of advertising may be explained by the limited amount of advertising that does not reach the target population. It may also reflect patients' confidence in the recommendations of the medical team or of relatives who tried complementary medicine themselves.

Use of the range of services offered by complementary medicine can vary from one culture and population to another. Our study showed that acupuncture and Shiatsu (61%) and homeopathy (7%) were the most common forms of therapy. An earlier study from the central region of the country showed homeopathy to be the most commonly used therapy [3], while in Australia the dominant therapy was chiropractic [6]. The treatment offered by the screening team in our clinic was based

primarily on patients' complaints. Among the clinic visitors, 47%, mostly men, complained of musculoskeletal problems, while 13%, mostly women, complained of emotional problems such as anxiety and tension. We assume that patients' cultural environments contribute to the choice of treatment. Cultural norms of the screening team may also affect the choice of therapy.

Americans paid over five million visits to acupuncturists in 1997 [10]. In 1998 the National Institutes of Health convened a Consensus Development Conference where a review of the literature since 1970 on alternative medicine was presented and experts in the field were heard. The consensus panel concluded: "Acupuncture may be useful as an adjunct treatment or an acceptable alternative for a variety of conditions" [11]. It also noted that evidence for the efficacy of acupuncture was particularly strong for the management of postoperative and chemotherapy-induced nausea and vomiting, and for post-operative dental pain. The panel concluded, in addition, that acupuncture may be a useful adjunct or alternative treatment in stroke rehabilitation, addiction, asthma, and for patients with a variety of painful conditions including headache, myofascial pain, osteoarthritis, low back pain, and carpal tunnel syndrome [11]. Another study of patients with low back pain who were treated with the McKenzie method of physical therapy or chiropractic manipulation showed similar effects and costs for these modalities, but patients receiving these treatments had only marginally better outcomes than those receiving the minimal intervention of an educational booklet. It is unclear whether the limited benefits of these treatments are worth the additional cost [12].

The results of our study in the Clalit Complementary Medicine Clinic in Beer Sheva may reflect the characteristics of complementary medicine in the Negev. Given the differences throughout the world in terms of provision of healthcare services and culture-based attitudes to healthcare, we believe that our results may be representative of other areas in Israel but we cannot claim with any certainty that our findings can be generalized to other countries or other healthcare systems.

The question of outcome was not assessed in this study and should be the subject of a further study. The degree of satisfaction of the entire clinic population, and not only the sample described here, was assessed by another clinic team who found that 83% of the patients were satisfied or very satisfied with the level of treatment and 86% were satisfied or very satisfied with the professional level of the clinic therapists and staff.

A comprehensive assessment of the characteristics of complementary medicine patients and services can help primary care physicians to reach decisions on referral of patients to complementary medicine clinics, and may assist in the planning of resources and marketing strategies. However, when generalizing the model to other countries, local cultures and other factors that may influence patient preferences must be taken into consideration.

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