

Original Article

Satisfaction with Family Physicians and Specialists and the use of Complementary and Alternative Medicine in Israel

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Higher utilization of complementary and alternative medicine (CAM) is commonly explained by dissatisfaction or disappointment with conventional medical treatment. To explore, at two points in time in Israel, the associations between six domains of satisfaction (attitude, length of visits, availability, information sharing, perceived quality of care and overall) with conventional family physicians' and specialists' services and the likelihood of consulting CAM providers. This is a secondary analysis of interviews, which were conducted with 2000 persons in 1993 and 2500 persons in 2000, representing the Israeli Jewish urban population aged 45–75 in those years. Bivariate and multivariate analyses were used in the investigation. In 1993, users of CAM were less satisfied than non-users with both family physicians' and specialists' care. Lower satisfaction with the attitude of, the amount of information sharing by and in general with family physicians, and with the length of visits and perceived quality of care of specialists were significantly associated with CAM use. In 2000, lower satisfaction with specialists' attitude, length of visits, availability and in general was significantly related to the use of CAM. Lower satisfaction with family physicians and specialists is significantly associated with consulting CAM providers. However, with CAM becoming a mainstream medical care specialty in its own, lower satisfaction with conventional medicine specialists becomes the most important factor.

Keywords: CAM – family physicians – Israel – logistic regression – satisfaction – specialists

Introduction

There is growing evidence in many Western societies of increased use of complementary and alternative medicine (CAM) by consumers. A combination of factors have been discussed in the literature to account for these processes: growing disillusionment with the technology and bureaucracy of biomedicine and increased questioning of its excessive invasiveness, heightened consumer awareness of iatrogenic effects of modern medicine and growth in expectations for quality service including structural changes in the physician–patient relationship (1–7). In a period of hyperdifferentiation in biomedicine, when medicine is practiced in large bureaucratic structures where there is minimal attention to the individual and to her/his social and psychological needs, CAM provides

a non-invasive, holistic alternative that is increasingly attractive to many, in particular to the better educated, richer and residents of urban centers (8–11). These factors have combined, in Israel as in other nations, with demographic changes, which have been accompanied by increased prevalence of chronic health problems that are less responsive to the methods of biomedicine (12–18).

The relationship between utilization of CAM and levels of satisfaction with conventional medicine providers—family physicians and specialists—is less known. In particular, it is not known how dissatisfaction with conventional medical care is translated into (dis)satisfaction with specific aspects of the conventional medical service experience, and the way satisfaction with these aspects affects the use of CAM (19–22). These questions will be explored in the present study. Specifically, the objective of this article is to explore the differences between users and non-users of CAM in satisfaction with several dimensions of the conventional

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care experience, and to estimate the importance of these domains by type of physician in seeking non-conventional medical care.

Methods

The Data

This is a secondary analysis of data, which was collected in face-to-face interviews (mean total length: about 40 min) in 1993 and in 2000. The fieldwork was conducted by 'Geocartographia', a private survey institute, under the supervision of the research team. Stratified samples were used, in which the stratifying variable was settlement size. Within the quarters and the settlements chosen, the addresses (and the replacement addresses) were chosen according to a procedure developed and used by the institute to assure the representability of the sample. The 1993 survey included 1999 individuals, while the 2000 survey included 2505 individuals. While the population studied—the urban Jewish population aged 45–75 years—does not represent the entire Israeli population, it certainly constitutes an important segment of it, in particular with respect to health and medical care.

The Variables

CAM Use

The two surveys included a similar set of questions on the use of CAM. The use of CAM refers to consultations with any alternative or complementary medicine provider (the full list is described in the Results section) during the year previous to the interview. We note that, following the definition of CAM which was common in Israel in 1993, chiropractors were included as CAM practitioners in both the 1993 and the 2000 survey.

The Measurement of Satisfaction

For both family physicians and specialists, the two surveys asked about general (overall) satisfaction as well as satisfaction with several dimensions of the service. These dimensions were chosen in light of an extensive literature review and included cognitive, practical and affective aspects of processes and outcomes (23,24). The dimensions included perceived quality of care, information sharing (the extent to which the physician informs the patient on the diagnosis, optional treatments, etc.), availability (reception hours, distance, waiting times to an appointment and in office), the length of the appointment (time devoted) and general attitude toward the patient.

The satisfaction with each dimension (and in general) was retrieved using a seven-point scale, where 1 signifies very low satisfaction and 7 means very high satisfaction.

Other Variables

The surveys collected information on a variety of concerns related to health and on personal characteristics. For the present analysis we considered the following characteristics: age, gender, education (primary school, high school and university), subjective economic status ('good', 'fair' and 'poor'), ethnic origin (second generation Israelis, Asia–Africa, Europe–America and post 1990 immigrants from the former USSR), size of residential community (200 000+ inhabitants versus smaller localities) and sickness fund (health plan) membership (both in 1993 and 2000, four sickness funds were operating in Israel). Sickness fund membership might be important in the 2000 analysis in particular, since supplemental insurance, covering CAM, has been offered by the sickness funds to their members since 1998. Finally, health-related quality of life was indicated by the 0–100 Visual Analog rating Scale (VAS), where 0 signifies death and 100 signifies perfect health.

The Statistical Strategy

First, users and non-users in both years were compared using their mean scores (and *t*-tests) on the six domains of satisfaction for both family physicians and specialists, as well as on selected personal characteristics. Second, the effects of satisfaction level with each domain for family physicians and specialists on the probability to use CAM, adjusted for personal characteristics, were estimated using logistic regressions.

Because of multicollinearity among the satisfaction levels with the six domains in both family physicians' and specialists' practices, it was impossible to include all of them in a single equation. Instead, six regressions were estimated for each year, each including the satisfaction level with one domain for both family physicians and specialists. The correlations within domains between satisfaction with family physicians and with specialists are low (below 0.2) and do not pose any problem in the estimation.

Results

General

In 1993, 6.1% of the population ($n = 121$) reported a contact with CAM provider during the previous year. In 2000, 9.8% ($n = 246$) had such a contact, a 61% increase. Of those who consulted CAM providers, 30% in 1993 and 29% in 2000 visited a homeopath; 21% in 1993 and 30% in 2000 saw an acupuncturist; 7% in 1993 and 13% in 2000 consulted a chiropractor; 21–22% in both years visited a reflexologist; and 21% in 1993 and 17% in 2000 consulted a naturopath. In general, the popularity of acupuncture and chiropractic has increased, while that of naturopaths has decreased. Small number of persons visited other healers such as rabbis or osteopaths.

The most frequent problem, for the treatment of which persons tended to consult CAM practitioners in 1993, was an unlocalized health complaint such as tiredness, lack of energy, nutrition problems, etc. In 2000, back pain (20% in 1993 and

29% in 2000) became the leading problem. Problems with joints and limbs caused 13% in 1993 and 15% in 2000 of all consultations. Digestion and urinary problems led to 10–11% of the consultations in both years. The results show a dramatic increase in the share of respiratory problems (e.g. asthma), hypertension, and high levels of cholesterol and triglycerides in total problems leading to consultations (from 13% in 1993 to 25% in 2000).

In 1993, the most frequently stated reason for consulting a CAM provider was a general disappointment with conventional medicine (40 and 27% in 2000). In 2000, the main reason for doing so was a concern about using conventional medicine technologies such as drugs (29% in 2000, 10% in 1993) or invasive procedures (6% in both years). Fifteen percent in 1993 and 11% in 2000 stated that they consulted a CAM provider simply because there was no other solution for their problem. Another 6–7% in both years consulted a CAM provider out of curiosity [for more details see (14)].

Satisfaction Levels of Users and Non-users

Table 1 presents the means and standard deviations of the satisfaction scores between users and non-users for 1993 and 2000, as well as the *t*-values for testing the equality of the means. The lower panel presents the means of the other personal characteristics.

In 1993, non-users reported higher satisfaction than users in all domains and for both family physicians and specialists. All differences, except that in attitude of specialists, were significant at 0.05. In 2000 this pattern changed. The differences between users and non-users of CAM in satisfaction with availability, information sharing and in general of family physicians' services were no longer significant. The differences in satisfaction with the various domains of specialists' care became more pronounced. From Table 1 it can be seen that the differences in satisfaction with family physicians disappeared mainly because of an increase in the satisfaction scores among the users of CAM, while those in satisfaction with specialists increased mainly due to a drop in satisfaction among non-users of CAM.

An unexpected result is that in the year 2000 users of CAM report significantly higher satisfaction than non-users with respect to the attitude of and time devoted by family physicians.

The Effect of Satisfaction with Conventional Medicine Providers on the Use of CAM

Tables 2 and 3 report the adjusted (for personal characteristics) effects of the domains of satisfaction with family physicians and specialists on the likelihood of using CAM in 1993 and 2000, respectively. Table 2 (1993) demonstrates that consistently over the satisfaction domains, lower satisfaction scores are associated with higher probability of using CAM, but to varying degrees across domains and type of physician. The attitude and the extent of information sharing of family physicians and overall satisfaction with their services are more

important than the same domains of specialists' care. The length of visits and the perceived quality of care are more important in specialists' care than in family physicians' practices. Availability of conventional care is not important with respect to approaching CAM providers.

In 2000 (Table 3), in general, only satisfaction with specialists' dimensions of care affect the tendency to approach CAM, and in the expected direction. However, satisfaction with specialists' information sharing and with the perceived quality of their care does not affect the likelihood of consulting CAM providers. While, in general, satisfaction with family physicians does not affect that tendency, higher satisfaction with length of visits to family physicians is associated with greater tendency to consult CAM providers (a similar result was obtained in the bivariate analysis in Table 1).

Judging from the pseudo- R^2 of the different regressions, it seems that in 1993 the most important single service-domain affecting the approach to CAM is the perceived quality of care of conventional practitioners. The least important is availability of these services. In 2000, the most important domain is the length of the visits (with a positive effect for family physicians and a negative one for specialists), and the least important is extent of information sharing.

The effects of other personal characteristics on the probability to use CAM in both years are similar to those found elsewhere, and are discussed in more detail in (3).

Discussion

The nature of the commodity 'CAM' in Israel has changed dramatically between 1993 and 2000. In 1993, CAM was in its early stages of diffusion. Controlling for personal characteristics, lower satisfaction with both family physicians and specialists, with different order of importance in the various domains, was related to the use of CAM. Lower satisfaction with perceived quality of care and time devoted by specialists, and with the attitude of, and information shared by family physicians and in overall were the main drivers.

In 2000, CAM became a mainstream medical care, and lower satisfaction with specialists' services was more important than that with family physicians as a reason to use CAM. In other words, CAM may have become a potential substitute for specialists' consultations in 2000. In particular, lower satisfaction with the length of visits to specialists, with their interpersonal attitude and with their availability proved to enhance consultations with CAM providers. Satisfaction with family physicians was no longer statistically important for CAM use in 2000. However, higher satisfaction with the length of visits to family physicians was positively related to the use of CAM. A possible explanation is that family physicians, who spent more time with their patients, with health (VAS) held constant, tend to refer them more often than other physicians to CAM providers including sometimes providing such a treatment themselves (in 60% of the consultations, the CAM provider held an MD degree as well, and 10% of the CAM users were referred to a CAM provider by their treating physician).

Table 1. Satisfaction levels and personal characteristics of users and non-users of CAM in 1993 and 2000

N	1993					2000				
	Users		Non-users		t-test	Users		Non-users		
	121		1878			246		2259		
	Mean	SD	Mean	SD		Mean	SD	Mean	SD	
Satisfaction with . . .										
Attitude										
Family physicians	5.627	1.653	6.010	1.326	2.462	6.129	1.392	6.061	1.230	-2.574
Specialists	5.645	1.771	5.919	1.475	1.560	5.593	1.585	5.852	1.350	8.260
Time devoted										
Family physicians	5.392	1.858	5.879	1.458	2.814	5.975	1.494	5.879	1.400	-3.197
Specialists	5.343	1.804	5.807	1.521	2.605	5.391	1.720	5.671	1.480	8.144
Availability										
Family physicians	5.033	1.940	5.574	1.659	2.980	5.411	1.698	5.444	1.605	0.973
Specialists	5.111	1.891	5.486	1.730	1.997	4.884	1.887	5.133	1.738	6.154
Information sharing										
Family physicians	5.542	1.824	6.002	1.373	2.689	5.929	1.506	5.957	1.352	0.973
Specialists	5.421	1.812	5.923	1.461	2.803	5.612	1.549	5.734	1.459	3.565
Quality of care										
Family physicians	5.653	1.712	6.028	1.304	2.336	5.946	1.464	6.029	1.259	3.082
Specialists	5.453	1.913	5.963	1.435	2.689	5.623	1.527	5.841	1.377	6.769
Overall										
Family physicians	5.600	1.692	6.026	1.284	2.708	6.050	1.356	6.052	1.204	0.068
Specialists	5.481	1.753	5.931	1.381	2.604	5.542	1.540	5.785	1.355	7.708
Personal characteristics										
Base category in the multivariate analysis										
Sex										
Men	0.380	0.487	0.480	0.500		0.309	0.463	0.494	0.500	Women
Age	58.5	9.273	58.1	9.555		55.9	8.226	57.8	9.104	
Education										
High school	0.605	0.491	0.520	0.500		0.509	0.501	0.520	0.500	Primary school
University	0.211	0.409	0.220	0.415		0.409	0.493	0.293	0.455	
Economic status										
Good	0.583	0.693	0.604	0.718		0.637	0.592	0.558	0.651	Fair, poor
Ethnic origin										
Europe–America	0.482	0.502	0.449	0.497		0.413	0.493	0.327	0.469	Israeli born
USSR	0.033	0.180	0.071	0.257		0.126	0.333	0.143	0.350	
Asia–Africa	0.368	0.485	0.385	0.487		0.304	0.461	0.395	0.489	
Location size										
200K+ inhabitants	0.479	0.754	0.425	0.751		0.467	0.791	0.398	0.779	Up to 200K inhabitants
Sick fund										
Maccabi	0.061	0.241	0.116	0.321		0.193	0.396	0.200	0.400	Clalit
Meuhedet	0.018	0.132	0.053	0.224		0.118	0.324	0.061	0.240	
Leumit	0.079	0.271	0.065	0.247		0.075	0.263	0.077	0.267	
VAS	66.8	22.2	70.9	20.2		68.8	21.2	69.4	20.8	

Boldface indicates that the difference is significant at 0.05.

While the majority of users of CAM stated dissatisfaction or disappointment with conventional treatment as the main reason for consulting CAM providers, the results indicate that, unlike Astin's (22) conclusions, lower satisfaction with various aspects of conventional medicine practice of family

physicians and specialists are also related to such consultations. While we do not know if those dissatisfied with their family physicians and specialists have tried other physicians before consulting a CAM provider, we believe that the issue reflected here is not dissatisfaction with specific providers,

Table 2. The adjusted effects of satisfaction with family physicians and specialists on the likelihood of using CAM in 1993 (logistic regressions)

	Attitude		Time devoted		Availability		Info sharing		Quality of care		Overall	
	Coefficient	T-value	Coefficient	T-value	Coefficient	T-value	Coefficient	T-value	Coefficient	T-value	Coefficient	T-value
Family physicians	-0.178	-2.491	-0.111	-1.633	-0.082	-1.228	-0.152	-2.123	-0.130	-1.745	-0.156	-2.051
Specialists	-0.065	-0.929	-0.147	-2.264	-0.060	-0.937	-0.119	-1.735	-0.171	-2.605	-0.116	-1.641
Constant	-1.112	-1.074	-0.984	-0.946	-1.782	-1.810	-0.966	-0.945	-0.964	-0.937	-0.966	-0.932
VAS	-0.010	-1.803	-0.010	-1.816	-0.010	-1.756	-0.010	-1.798	-0.009	-1.607	-0.010	-1.747
Sick fund membership												
Meuhedet sick fund	-0.977	-1.335	-0.918	-1.253	-0.979	-1.337	-0.917	-1.252	-0.924	-1.262	-0.934	-1.275
Maccabi sick fund	-0.547	-1.236	-0.471	-1.064	-0.518	-1.170	-0.510	-1.152	-0.497	-1.123	-0.543	-1.229
Leumit sick fund	0.232	0.579	0.280	0.700	0.233	0.585	0.241	0.603	0.288	0.720	0.273	0.682
Sex and age												
Men	-0.461	-2.082	-0.467	-2.113	-0.426	-1.934	-0.457	-2.067	-0.489	-2.197	-0.467	-2.109
Age	0.005	0.425	0.005	0.374	0.006	0.503	0.006	0.441	0.007	0.590	0.005	0.422
Education												
High school	0.672	2.257	0.651	2.187	0.640	2.154	0.662	2.220	0.650	2.186	0.667	2.238
University	0.683	1.890	0.610	1.678	0.663	1.839	0.630	1.733	0.578	1.591	0.638	1.760
Economic status	0.064	0.280	0.052	0.225	0.036	0.159	0.068	0.294	0.071	0.308	0.061	0.267
Ethnic origin												
Europe–America	-0.021	-0.054	-0.044	-0.116	-0.084	-0.219	-0.028	-0.073	-0.017	-0.044	-0.015	-0.039
USSR	-0.749	-1.072	-0.708	-1.015	-0.724	-1.039	-0.810	-1.153	-0.720	-1.030	-0.728	-1.042
Asia–Africa	0.099	0.256	0.087	0.225	0.045	0.116	0.074	0.191	0.113	0.289	0.105	0.271
200K+ inhabitants	0.263	1.132	0.244	1.049	0.257	1.104	0.255	1.095	0.247	1.060	0.255	1.099
Pseudo-R ²	0.041		0.044		0.035		0.045		0.047		0.043	

Boldface indicates that the effect is significant at 0.05.

Table 3. The adjusted effects of satisfaction with family physicians and specialists on the likelihood of using CAM in 2000 (logistic regressions)

	Attitude		Time devoted		Availability		Info sharing		Quality of care		Overall	
	Coefficient	T-value	Coefficient	T-value	Coefficient	T-value	Coefficient	T-value	Coefficient	T-value	Coefficient	T-value
Family physicians	0.075	1.062	0.143	2.162	0.069	1.228	0.002	0.036	0.003	0.040	0.042	0.591
Specialists	-0.143	-2.658	-0.166	-3.271	-0.123	-2.499	-0.060	-1.060	-0.105	-1.878	-0.131	-2.283
Constant	-1.082	-1.222	-1.358	-1.590	-1.176	-1.456	-1.062	-1.262	-0.862	-1.005	-0.980	-1.132
VAS	-0.005	-1.314	-0.006	-1.500	-0.006	-1.350	-0.006	-1.376	-0.005	-1.306	-0.006	-1.332
Sick fund membership												
Meuhedet sick fund	0.638	2.387	0.636	2.374	0.602	2.246	0.632	2.368	0.636	2.381	0.640	2.395
Maccabi sick fund	0.066	0.317	0.079	0.381	0.042	0.202	0.053	0.255	0.057	0.276	0.062	0.297
Leumit sick fund	0.344	1.166	0.356	1.209	0.335	1.139	0.300	1.023	0.314	1.069	0.331	1.126
Sex and age												
Men	-0.742	-4.409	-0.747	-4.433	-0.762	-4.535	-0.752	-4.480	-0.756	-4.500	-0.761	-4.524
Age	-0.011	-1.139	-0.011	-1.132	-0.011	-1.126	-0.012	-1.241	-0.012	-1.169	-0.011	-1.131
Education												
High school	0.465	1.649	0.480	1.699	0.484	1.715	0.487	1.732	0.479	1.700	0.481	1.707
University	0.581	1.926	0.599	1.986	0.591	1.960	0.600	1.997	0.587	1.951	0.585	1.943
Economic status	0.297	1.703	0.309	1.765	0.302	1.732	0.303	1.736	0.314	1.796	0.311	1.781
Ethnic origin												
Europe–America	0.049	0.196	0.055	0.217	0.010	0.039	0.052	0.209	0.057	0.230	0.063	0.251
USSR	-0.572	-1.741	-0.579	-1.759	-0.587	-1.787	-0.567	-1.731	-0.563	-1.718	-0.561	-1.711
Asia–Africa	-0.231	-0.913	-0.231	-0.914	-0.264	-1.043	-0.225	-0.891	-0.219	-0.869	-0.216	-0.857
200K+ inhabitants	0.342	1.957	0.339	1.937	0.354	2.022	0.343	1.965	0.341	1.951	0.346	1.979
Pseudo-R ²	0.050		0.054		0.049		0.045		0.047		0.048	

Boldface indicates that the effect is significant at 0.05.

but lower satisfaction with specific domains of the experience, which reflects inconvenience with the nature of conventional medical care.

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