

Research article

The use of alternative therapies in the Saskatchewan stroke rehabilitation population

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Abstract

Background: Many patients use alternative therapies. The purpose of this study was to determine the percentage of stroke rehabilitation patients in Saskatchewan using alternative therapies, whether patients found these therapies effective in alleviating stroke-related symptoms, how often those patients who used alternative therapies discuss this fact with their primary care doctor and the main reason why patients might not do so.

Methods: Telephone questionnaire surveys were conducted with 117 patients who had suffered a stroke and undergone inpatient or outpatient rehabilitation at Saskatoon City Hospital.

Results: The study revealed that 26.5% of 117 stroke rehabilitation patients visited alternative practitioners at least once or used some form of unconventional therapy. Only 16.1% of patients found that alternative therapy made them feel much better. Of those who used alternative therapy, 61.3% did not discuss this fact with their primary physician. Many of the respondents (47.3%) who did not inform their physician stated that they did not see the necessity of talking about these treatments and 21.1% did not discuss the issue with their physician because they felt that he or she might disapprove of alternative therapies.

Conclusion: A relatively small percentage of stroke patients found alternative therapies beneficial. Doctors should be aware that a significant number of patients will try alternative treatment without discussion with their primary care physician or specialist. The current study suggests that after completing routine questioning, doctors should also ask their patients about their use of alternative therapies and, when appropriate, review issues of safety and efficacy.

Background

Alternative treatments for medical conditions have existed for centuries. In recent years more and more people using conventional services are turning to alternative therapies. A current review of the literature shows that alternative medicine has increased in popularity among people in Canada and elsewhere [1-4].

In 1990, the general population in the United States spent approximately 13.7 billion dollars on alternative therapies [5]. From 1990 to 1997 visits to primary care MDs dropped from 387 million to 385 million, but at the same time, visits to alternative practitioners rose from 427 million to 629 million [5]. A recent cross-sectional survey of United States residents found that a substantial proportion of the general population (33.8%) were using alter-

native therapies and were paying more money for alternative therapies than for conventional medical therapies [6].

There are several studies documenting the interest of the public (as well as medical practitioners) in alternative medicine in Canada. Berger in 1990 reported that 20% of Canadians had used alternative therapies at least once during the previous 6 months [7]. The use of alternative therapy in Canada appears to have increased from 20% in 1992 to 42% in 1997 [8].

Alternative therapy use has also been evaluated in various different medical specialties. A study of gastroenterology patients noted that 27% had used nontraditional therapy [9]. Studies of rheumatology patients have documented between a 40.7% and 66% rate of use of alternative therapy [10,11]. Fibromyalgia patients report an even higher use of alternative therapy, with approximately 91% finding relief using these treatments [12].

Various reasons for using alternative therapies have been suggested, including patient dissatisfaction with mainstream medicine or because patients are worried about the side effects of "chemical substances" [13,14].

Because of the chronic nature of many conditions treated in physical medicine and rehabilitation, the percentage of usage of alternative therapies in rehabilitation settings appears to be high [15]. Krauss and his associates contacted 401 patients who used rehabilitation services and found 57% of former users of rehabilitation services have tried at least one alternative treatment [16]. A lower percentage (29%) of rehabilitation outpatients reported such use in the previous year [15]. Recent studies suggest that the highest percentages of alternative therapy use were in patients with musculoskeletal problems and arthritis, including neck (57%) and back (47.6%) problems [6,17].

A 2000 study documented the top three therapies used among the rehabilitation population as acupuncture (85%), biofeedback (81%) and manipulation (80%) [18]. Other studies in Canada and the US have listed massage, chiropractic manipulation, vitamin mineral supplementation and acupuncture as the most commonly used therapies [6,10,19,20]. Shiflett and colleagues reported that rehabilitation patients had tried alternative therapy for several reasons: the extent of their symptoms and accompanying disabling effects and a value system that involves patient participation in their own health care [21]. We were unable to locate any studies which specifically addressed the use of alternative therapies amongst stroke rehabilitation patients.

Physician attitudes toward alternative medicine have also been examined. It appears that up to 54% of Canadian general practitioners make referrals to alternative practitioners and 16% practice alternative therapies themselves [9,22]. Varhoef and Sutherland found that 65% of Ontario and 44% of Alberta family physicians would give referrals to practitioners of alternative medicine [9]. Psychiatrists compared to family physicians have higher rates of referral to alternative practitioners. Psychiatrists who refer patients tend to be younger, female, and recent graduates [18].

For many years now, there has been growing interest (and sometimes criticism) of using unconventional and alternative medicine. However, there is evidence that most patients do not discuss the use of alternative therapy with their doctors. For example, Himmel et al indicated that only a few patients asked their doctors for complementary therapy and that patients were more attracted to complementary medicine than were their doctors [23]. A New England Journal of Medicine study demonstrated that 72% of patients never reported use of alternative therapy to their doctors [6].

It is well known that the risk of interactions between conventional drugs and some alternative remedies such as herbs and vitamins can be dangerous [24–26]. For example, in 1996, the media reported deaths from overdoses of *Herba ephedra* (herbal ephedrine), known in Chinese herbal medicine as *ma huang* [27,28]. A recent report discussed acute rejection of cardiac grafts in two male patients who were taking St. John's Wort and immunosuppressive therapy. In both cases, the patients were stabilized and recovered [29]. A letter to *The Lancet* from the Swedish Medical Products Agency reported seven cases where patients stabilized on warfarin had experienced reduced INR level during concomitant use of St. John's Wort [30]. These reports indicate that physicians should be aware of any alternative medications being used by their patients prior to prescribing medications which may have adverse interactions.

Our current study was an attempt to determine the rate of alternative therapy use amongst stroke rehabilitation patients in Saskatchewan, to determine how effective patients find these treatments, and to see how often stroke rehabilitation patients discuss alternative treatment with their primary physician in order to avoid potential interactions with prescribed therapies. As well, the study sought to elicit the main reasons why patients might not discuss their use of unconventional therapy with their physicians.

Methods

The study, completed in May and June 2001, surveyed 117 individuals who suffered a stroke or subarachnoid hemorrhage and underwent rehabilitation intervention (inpatient or outpatient) at Saskatoon City Hospital between January 1999 and December 2000. Patients aged 18 years or older were included in the study. Of the 136 patients who were eligible and were contacted, 117 completed the full survey. Twelve people declined to participate and 7 discontinued interviews. The study was approved by the Research Ethics Board of the University of Saskatchewan.

The interviewer explained that a telephone survey was required to learn how each client used alternative health care. A 22-question survey was used, and included questions about demographic information, clinical information, and questions on the utilization of alternative therapies. This survey is included as Appendix 1 (see Additional file 1). The interview lasted an average of approximately 12 minutes.

Use of alternative therapies was determined by reading a list of 12 treatments and asking whether any were used post stroke, as well as asking if the patients used any other treatments they considered to be non-conventional. The 12 treatments included the following: acupuncture, massage, chiropractic manipulation, reflexology, magnetic therapy, hyperbaric oxygen, herbal supplements, vitamins (not including those prescribed by a physician), spiritual healers, reiki, chelation therapy and relaxation therapy. This list was developed using similar types of lists from previous studies on alternative treatments in rehabilitation populations.

Respondents who reported using alternative therapies were asked further questions, such as the number of visits, out-of-pocket expenses, reasons for use, side-effects, duration of use and reasons for discontinuing. The total cost of visits to alternative medicine practitioners was calculated by multiplying the number of visits for each therapy by a per-visit price. Out of-pocket costs of herbs and vitamins were calculated by multiplying the total population of users by the average out-of-pocket expenditures reported by respondents who used each of these products.

The subjects' responses to interview questions form the basis of the data set for statistical analysis. Data were analyzed using Microsoft Access and Crystal Reports, which is an integrative software program used to analyze and present data. The results are presented mainly as frequency statistics. Responses to questions 7 and 12 (whether or not patients used alternative therapies, and if so, whether they informed their physicians) were compared between females and males to see if the answers given varied according to the sex of the respondent. These selective com-

parisons were made in order to be able to compare the results with previously published work.

Results

The 117 rehabilitation patients who completed the survey included 74 men (63.2%) and 43 women (36.8%) ranging in age from 32 to 90 years, with a mean age of 70 years. Of the 117 respondents, 31 (26.5%) had visited an alternative practitioner at least once or had used some form of alternative therapy. Of the 31 interviewees who used alternative therapy, 22 (71%) were males and 9 (29%) were females. This meant that 29.7% of men and 20.9% of women who were interviewed used alternative therapies. Using Chi Square calculations, this was found to *not* be a statistically significant difference between the 2 sexes (Chi Square = 1.08).

Nearly all of the patients (97.4%) had comorbid medical problems associated with the stroke, and 82.1% were taking prescription medications to help prevent another stroke. Only 1 patient had decided not to take medication prescribed by their doctor to help prevent another stroke.

The most common types of alternative therapy used were vitamins, massage and acupuncture (see Table 1). Seven patients (22.6%) used more than one alternative therapy.

The most common symptoms being treated with alternative therapies were fatigue (16.7%) and muscle weakness (16.7%). Most people could not describe one particular symptom they were attempting to treat. Only 16.1% of users found that alternative therapy made them feel much better overall, while 83.9% of people found no change or only slight improvement with the treatments. None of the patients reported side effects from the treatments.

Most respondents started taking alternative therapy after it was suggested by a family member (see Table 2). Only 16.1% were using these treatments on the advice of their physician.

Of the 31 alternative therapy users, 19 (61.3%) did not discuss alternative treatment with a doctor and only 12 (38.7%) had informed their physician about their use of alternative therapy. Six of 9 females (66.7%) who used alternative therapies did not inform their physicians, compared with 13 of 22 males (59.1%) who did not inform their physicians. This difference between gender was *not* found to be statistically significant (Chi Square = 0.154).

Nine (47.4%) of the patients who did not inform their physician said they found no necessity to talk about it because "...alternative medicine is natural and not harmful...". Six patients (31.6%) did not reveal the information because their doctor never asked about alternative treat-

Table 1: Types of therapy used

Type of therapy	Number of users (total n = 31, some used >1 therapy)	Prevalence of use (%)
Vitamins	15	12.8
Massage	10	8.5
Acupuncture	4	3.4
Chiropractic manipulation	3	2.6
Reflexology	2	1.7
Relaxation therapy	2	1.7
Herbal remedies	2	1.7

Table 2: Why patients used alternative therapies

Reason for using	Number of users (total n = 31)	Percentage
Suggestion from family	22	71
Suggestion from physician	5	16.1
Information from television	2	6.5
Read a book or article about alternative therapy	1	3.2
I found out about it "by accident"	1	3.2

ments. Four of the patients (21.1%) did not inform their doctor about using alternative medicine because they feared that their doctor might disapprove of these treatments.

The majority of respondents (28 patients, 90.3%) who used alternative therapy paid all the costs out-of-pocket. The payment was most common for massage, acupuncture and vitamins. Medical insurance covered alternative treatment for only 3 (9.7%) of 31 subjects. The average cost of alternative therapy in the past 12 months per patient was \$56.70 per month.

Only 33.3% of users felt that they would recommend alternative therapies to other stroke patients, while 53.4% were not sure and 13.3% said that they would not. Of those who said they would recommend the treatments, most said it was because they found them helpful or relaxing. The majority of patients (51.7%) were still using treatments and most (67.7%) used them on a regular basis.

Various reasons were given for why patients had stopped using the therapies. Of the 15 patients who had stopped, 5 (33.3%) did so because the treatments were too expen-

sive. Four each (26.7%) did so because they were not helping or the patients started to feel better, and 3 respondents (20%) noted that it was too far away to drive to access the treatment.

Most patients were unsure as to whether or not physicians should be more informed about alternative therapies. Only 23 patients (19.7%) answered affirmatively, while 90 patients (76.9%) were not sure and 4 (3.4%) said that physicians did not need to be more informed.

Discussion

The prevalence of use of alternative therapy by stroke rehabilitation patients appears to be consistent with several previously reported studies. The 26.5% of stroke patients who used alternative medicine in our study was comparable to the 29.1% of general rehabilitation patients reported by Wainapel et al [15]. Males were more likely to use the treatments than females, but this was not statistically significant. The most commonly used alternative treatments in our patient population were vitamins, massage and acupuncture. This is also relatively similar to the results of previous studies [6,10,11].

Interestingly, many patients could not describe one particular symptom they were attempting to treat. A small percentage found that the treatment made them feel much better and only one third of people who used alternative therapies would recommend them to another person who had a stroke. Therefore, it would appear that the patient-reported efficacy of alternative therapies in alleviating symptoms caused by a stroke is relatively low. Despite this fact, the majority of patients who used them (51.7%) were still using them at the time of the survey. When patients did stop the treatments, it was often because they were too expensive or not helpful enough to justify continuing. The average cost of alternative therapy was \$56.70 per month, and very few patients (9.7%) had insurance coverage for the treatments.

Only 16.1% of patients were taking the treatments based on advice from their physicians. Eisenberg [6] and Visser [31] reported very low physician awareness of alternative therapy usage by their patients. This study has demonstrated that 61.3% of patients who used alternative therapies did not discuss this fact with their primary care physician. Females were not more likely to tell their physicians than males. However, in most cases the patients did not seem to be willfully concealing the information, and only 21.1% of patients who did not discuss the treatments with their physicians did so because they feared the doctor might disapprove.

In contrast, 65% of Dutch patients inform their doctor of alternative therapy use [31]. This difference may be due to the higher acceptance and popularity of alternative medicine use in Europe [32]. Only 19.8% of patients in the current study felt that their physicians need to be made aware that they were using these therapies, while the majority were not sure whether they would share this information or not.

This Saskatchewan study showed that nearly 26% of stroke rehabilitation patients are using alternative therapy approaches and among them 61% have not discussed that fact with their doctor. Although many patients simply do not do so because they feel these medications are safe, 31.6% of patients said it was because their physician did not specifically ask about alternative treatments. This lack of communication may be potentially harmful to patients, as many alternative medications may have unexpected side effects or interact adversely with prescribed medications.

It would seem to be helpful for physicians to inform themselves about these therapies so that they may improve patient – doctor communication by giving advice about alternative therapy use while at the same time monitoring possible side effects. Physicians should become fa-

miliar with current literature on alternative medicine and use guidelines for advising patients using complementary medicine [33]. It is important that patients develop a trusting relationship with their doctors, within which they will feel comfortable discussing their use of alternative therapies in order to optimize the care of the patient.

The current study suggests that after completing routine questioning, doctors should ask their patients about using alternative therapies and, when appropriate, review issues of safety and efficacy.

Conclusion

Of the 117 stroke rehabilitation patients interviewed, 31 (26.5%) used alternative therapy following their stroke. A relatively small percentage of these patients found these alternative therapies to be beneficial, and most would not recommend them for other stroke patients. Most patients did not discuss alternative therapy use with their primary care physician, although few did so because of fear of disapproval. Doctors should be aware that a significant number of patients will try or have tried alternative treatment without discussion with their primary care physician or specialist.

Competing interests

None declared.

Authors' contributions

JB and LJ worked together on the concept of the study and the design of the questionnaire. LJ carried out the telephone survey and data collection. JB completed the final data analysis and prepared the manuscript. Both authors read and approved the final manuscript.

Additional material

Additional file 1

Appendix

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