

Application of the Cooperative Health Care Clinic Model for Delivery of Complementary/Alternative Medicine (CAM) Care

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Abstract

Context: Patient demand, physician practice patterns, and legislative pressures collectively mandate continuing attention toward determining the most sensible means of providing complementary/alternative medicine (CAM) services and integrating such care within the conventional delivery system at Kaiser Permanente (KP).

Objective: To assess feasibility of implementing—and customer satisfaction with—an internal, physician-directed, referral-based natural medicine clinic at KP based on the cooperative health care clinic (CHCC) model.

Design: Cross-sectional survey.

Main Outcome Measures: Responses to a set of three questionnaires administered to patients and to referring clinicians for clinic visits occurring between February 1, 2001 and September 30, 2001.

Results: Since inception of the natural medicine clinic in July 1999, the volume of referrals to the clinic has progressively increased, doubling from approximately nine per month during the first eight months of operation to 18 per month during the pilot study. Fifty-six new patients completed the survey instrument by the conclusion of the study; 88% of these 56 patients were either somewhat or highly satisfied with their clinic visit. Of 38 patients seen for follow-up visits, 21 returned a second questionnaire by mail; 88% of these 21 patients reported finding the clinic somewhat or very useful and described improvement in disease-specific symptoms and energy level as well as an enhanced sense of control over their medical condition. Referring physicians reported that the clinic filled a valuable need for them as well as for their patients.

Conclusion: The CHCC model may be a viable mechanism for delivering CAM services at KP.

Introduction and Background

The complementary/alternative medicine (CAM) phenomenon remains a highly visible and complex issue. Patient demand,¹ physician practice patterns,² and legislative pressures collectively mandate continuing attention toward both determining the most sensible means of providing CAM services and integrating such care within the conventional delivery system at Kaiser Permanente (KP). In considering these issues from the vantage point of a group model health maintenance organization (HMO), emphasis has been placed on contracting with established networks of licensed CAM providers, such as chiropractors and acupuncturists. Outside referrals to network practitioners for provision of CAM products and services can then be approved as treatment for select clinical disorders.

This model offers several advantages that enable an HMO to substantially meet existing demand for CAM services while maintaining control over costs and, at the same time, monitoring quality. However, this model has several drawbacks as well. When a patient is referred outside of the HMO system, effective communication between the referring physician and the CAM clinician may become difficult or impossible; and this problem is only exacerbated by preexisting differences between the groups in terms of training, vocabulary, and treatment paradigm. In addition, the dollars spent on outside network care do not build the practice or infrastructure at KP. In addition, many patients and clinicians who advocate an increased role for CAM do so in an attempt to augment the holistic value of the health care experience—a goal that *a priori* cannot be accomplished through outside referral. For these reasons, models of care must be considered that allow provision of some CAM services by clinicians within our own KP clinical network.

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The group outpatient visit model—also known as the Cooperative Health Care Clinic (CHCC)—may be a viable mechanism for integrating CAM into the KP practice setting. The CHCC has been previously used within the KP system as an alternative to the conventional, brief, one-to-one patient care encounter.^{3,7} CHCC appointments typically consist of a two-hour session attended by seven to ten patients and the physician. The CHCC offers several attractive features. First, patients are afforded the opportunity for extended contact with the physician. Second, the physician can efficiently provide more detailed information to more patients than is feasible in a brief one-to-one visit. Third, patients have the opportunity to socialize with and learn from other participants in the group.

Implementation of the CHCC model has also improved service, quality, and cost when offered to select patients in the managed care setting. In one study, Beck and colleagues⁸ randomized 321 KP Colorado geriatric patients to either a CHCC intervention or to usual care. After a one-year follow-up period, patients who attended the CHCC sessions reported significantly greater satisfaction with overall care than controls did ($p = .019$). CHCC patients also had fewer emergency department visits ($p = .009$), subspecialty visits ($p = .028$), and repeat hospital admissions ($p = .051$) than the control group. Cost of care per member per month was \$14.79 less for the CHCC than for the control patients.⁸

The purpose of this pilot project was to assess feasibility of implementing as well as customer satisfaction with an internal, physician-directed, referral-based group natural medicine clinic within KP, patterned after the CHCC model. Specifically, we sought to answer the following questions: 1) Is provision of CAM services logistically feasible at a KP primary care clinic? 2) Would KP clinicians refer patients to such a clinic? 3) What type of patients would come to the clinic? 4) Would patients be satisfied with the experience? 5) What clinical results, if any, would patients report?

Methods

Referral to the Group Natural Medicine Clinic

The clinic was organized to meet once or twice monthly and was open to KP Northwest members referred from another clinician. Through a series of paper-based and electronic mail announcements, clinicians were notified of existence and availability of the clinic. Referrals were generated through the patient's electronic medical record by using the same mechanism used to generate subspecialty referrals. Clinicians

were notified that they could refer any patient with a chronic or subacute medical condition who desired a natural or holistic approach as a supplement to usual care. At referral, patients were informed that to benefit from the clinic, they would need to be highly motivated and to modify their diet and lifestyle.

After receiving a referral, a two-page "Daily Routine Questionnaire" was mailed to patients for completion. The questionnaire elicited information regarding diet, digestion, elimination, sleep, and exercise. After completing and returning this questionnaire, patients were scheduled for a two-hour group clinic attended by both a physician and a nurse and structured to accommodate seven to ten patients.

Clinic Content

The group clinic had an interactive didactic format designed to provide patients with a cognitive framework for evaluating and integrating CAM modalities. The clinic was designed also to offer patients practical ideas for diet, daily routine, and behavior modification that could be implemented immediately.

The content of the didactic segment was based substantially on the Vedic Medicine⁹⁻¹² paradigm, a version of the traditional Indian system that has been adapted to conform with contemporary, evidence-based standards. The concepts of physiologic balance and body typing were introduced and were then further developed into

Table 1. Reason for referral

Condition	No.
Menopause	11
Irritable bowel	6
Allergies/chronic sinus	5
Cancer/well-being	5
Anxiety/depression	4
Fibromyalgia	3
Arthritis	2
Diabetes mellitus	2
Back pain	2
Hypertension	2
Patient request	2
Lipid levels	1
Infertility	1
Inflammatory bowel	1
Vertigo	1
Headache	1
Eczema	1
Obesity	1
Prostatism	1
Multiple problems	1
Health maintenance	1

Question	No. of responses		
	"not very"	"neutral"	"very"
How useful was the information presented in the clinic?	1	6	48
How satisfied are you with the experience you had at the clinic?	2	7	47
Was the information about body types and "doshas" clearly presented and easy to understand?	2	10	44
Was the information about diet and lifestyle modification clearly presented and easy to understand?	3	5	48
Would you be interested in participating in a meditation course if it were offered as a covered benefit?	7	10	33
Open-ended questions and their answers			No. of responses
Why did you come to the clinic?			
To learn about holistic and alternative remedies			14
To learn about health maintenance and disease prevention			9
To find out about alternatives to pharmaceuticals			8
What did you like most about the clinic?			
The subject matter: learning about Ayurveda, doshas, and body types			15
The availability of a new and creative approach			13
What should be done to improve the clinic?			
Improve access			8
Improve handouts			5

Question	No. of responses		
	"not very"	"neutral"	"very"
How useful has your experience been with the Natural Medicine Clinic?	0	3	16
How satisfied are you with the experience you have had at the Natural Medicine Clinic?	0	3	16
To what extent have you made changes in your lifestyle and diet as a result of attending the clinic?	3	4	11
To what extent has your condition improved as a result of what you have learned through the clinic?	4	5	8
Open-ended questions and their answers			No. of responses
Please provide details related to any changes you have made in your diet and lifestyle: ^a			
simple dietary measures, such as favoring warm beverages and taking the main meal at noon			10
changes in daily routine, such as regular exercise or meditation			5
What about your condition has improved?			
improvement in specific symptoms:			
skin rashes			2
chronic abdominal pain			2
hyperlipidemia			2
other			3
improvements in general health:			
improved energy level			3
enhanced sense of control over the illness			2
What did you like most about the clinic?			
the natural and holistic approach			6
the effort on the part of the physician			5
What might we do to improve the experience?			
improve access			8

^aTwo patients indicated that they had already made the changes recommended in the class.

specific recommendations for patients in four areas: diet, exercise, daily routine, and behavior modification. Information related to community resources in yoga, meditation, and stress management was provided. Patients were extensively educated and coached regarding safety issues related to herbal supplement use.

When the group ended, patients were advised to attempt at least one or two changes in diet and lifestyle based on the group clinic content and were invited to attend a six- to eight-week individual follow-up appointment with the physician. The follow-up visit consisted of medical history; physical examination; and individualized recommendations encompassing diet, daily routine, behavior modification, exercise, meditation, and (in some cases) herbal supplements.

Data Collection

Data were collected by reviewing the patient's electronic medical record and responses to three questionnaires administered to patients and their referring clinicians. The questionnaires asked about visits to the clinic occurring between February 1, 2001 and September 30, 2001. The first questionnaire was distributed to new patients at the end of the group visit and was completed before the patient left the clinic. The second questionnaire and a self-addressed, stamped envelope were mailed to returning patients approximately two weeks after the individual follow-up visit. The third questionnaire was distributed to referring clinicians by electronic mail at the end of the pilot period.

Discussing Herbal Supplements with Patients

A considerable amount of our clinic's resources are directed toward answering patients' questions about herbal supplements. The group clinic format is ideally suited for this purpose, because the complexity of the issues often requires patient education well beyond that which can be accomplished within the framework of the conventional brief office visit. Four issues in particular require frequent attention.

Taking too many supplements is perhaps the most common mistake we encounter among patients. Patients may come to the appointment with a lengthy list or a large bag of vitamins, herbal extracts, homeopathic remedies, and other products, expecting that we will validate appropriateness of their use. In most instances, we encourage patients to discontinue such a program, because, simply stated, no possible way exists to sort through all the potential effects, toxicities, drug interactions, and other issues. Instead, patients are encouraged to focus on diet, exercise, daily routine, and stress management—perhaps with targeted use of a limited number of supplements within that context.

A second important issue relates to evidence. We see our role as educating patients about the types of evidence that do (and do not) exist for particular herbal products. Our role is to assist patients to make appropriate, well-informed, responsible health decisions. In some instances, this assistance may be relatively straightforward, as, for example, with products such as saw palmetto or St John's wort: Randomized controlled trial (RCT)

data exist pertaining to readily available standard extracts of these two substances. Many herbs, however, are supplied as combination products, for which no specific RCT data may be available. In such instances, some conclusions can be drawn by reviewing evidence from controlled trials, observational studies, and animal experiments using the main active ingredients. In addition, Ayurvedic and Chinese medicine formulations have a very long history of use dating back thousands of years. Common sense dictates that such voluminous anecdotal experience should be neither blindly accepted nor casually dismissed but weighed as another piece of evidence to be judiciously factored into each patient's decision.

A third concern relates to authenticity and labeling. Special rigor is required here to assure patient safety, particularly given the lack of federal regulation in this area. Herbal manufacturers must be asked important questions: Who formulates the products, and what are their credentials? Is the content of the products validated not only by experienced herbalists but also by appropriate laboratory analysis, such as high-pressure liquid chromatography? Are rigorous laboratory modalities applied to screen for pesticides, heavy metals, and biological contaminants? Does the manufacturer have certification from an established external reviewer as confirmation of good manufacturing practice? The procedure in our clinic is to direct most patients who wish to purchase herbal products to a single, well-established, ISO-9001-certified

supplier that we have selected on the basis of these criteria. This practice has enabled us to establish and monitor quality through our own research, inquiry, and clinical experience and to obtain validation from a highly respected international standardization organization.

Herbal supplements can be useful in management of some cases when certain conditions are met:

- Safety issues must be addressed, including verification of good manufacturing practices.
- Benefits must reasonably outweigh risks from the standpoint of the patient's clinical condition, including potential for herb-drug interactions.
- Conventional therapy must have been adequately considered or tried.
- A reasonable constellation of evidence must support efficacy.
- Use of herbal supplements must be consistent with the patient's own desires and beliefs.

Even when these conditions are met, however, we commonly raise a final concern when consulting with patients in our clinic. For patients who come to us seeking an herbal "magic bullet" because they believe the pharmaceutical "magic bullet" is undesirable or ineffective, we must provide a reminder that herbs can reasonably be expected to supplement—but not to replace—regular exercise, a wholesome diet, and a sensible daily routine. ♦

Results

Descriptive Data

Since inception of the CHCC in July 1999, volume of referrals to the clinic has progressively increased, doubling from approximately nine per month (during the first eight months of clinic operation) to 18 per month (during the pilot study). During the eight-month pilot period, the group clinic logged 59 new patient visits and 38 follow-up visits. Of the 59 patients who attended the group, 49 were female and 10 were male. Median age of the patients was 54 years (range, 23 years to 83 years). The most frequent reasons for referral were menopausal problems and irritable bowel (Table 1).

The 59 patients seen in the group clinic were referred by 40 different clinicians, 32 of whom were physicians and 8 of whom were allied health professionals. Of the 40 referring clinicians, 24 were female, and 14 were male; 31 provided primary care services (internal medicine or family practice); and 9 provided specialty care in gynecology, oncology, dermatology, genetics, general surgery, or emergency medicine.

Survey Results

Fifty-six patients completed and submitted the questionnaire at the end of the group visit, and 21 of 38 returning patients mailed back the follow-up questionnaire. Patients were asked to rate their impressions on a scale from 1 to 5. For analysis, responses were collapsed into three categories: Responses of "4" or "5" were interpreted as positive; responses of "1" or "2" were interpreted as negative; and responses of "3" were considered neutral. Most patients—new and returning—reported satisfaction with the clinic and found that the material was both understandable and useful. Results are summarized in Tables 2 and 3.

Each questionnaire also included a set of open-ended questions. Initial review of responses showed several recurrent motifs, which then formed the basis for descriptive analysis of the data. For new patients attending the group clinic, the most frequently cited reason for wanting to attend the clinic was desire to learn about natural and holistic remedies, whereas the most desirable features of the group clinic related to the subject matter presented. When asked how the clinic might be improved, responses generally focused on access. Return patients were asked to comment both on lifestyle changes that they had implemented and clinical improvement that they had experienced as a result of attending the clinic. The most commonly implemented changes were dietary, whereas

reported improvement tended to be disease-specific. Results are detailed in Tables 2 and 3.

In a survey sent by electronic mail, referring clinicians were asked a set of open-ended questions about utility of the clinic for them and for their patients. Nine clinicians responded to the survey. Respondents expressed support for the clinic as a useful resource for patients interested in CAM methods of treatment.

Discussion

Our experience confirms the feasibility of providing CAM services internally at KP, under physician direction and based on the CHCC model. These results suggest that the CHCC model may be a viable mechanism for delivering CAM services in an HMO setting. The clinic has now operated successfully for more than two years, the number of referrals has progressively increased, and a high degree of satisfaction has been reported both by patients and by physicians. In addition, many patients who attended the clinic reported clinical improvement as a result of this attendance (Table 3). This finding is especially encouraging to us when we consider that, for many patients who attended the clinic, conventional modes of treatment used previously had failed or were unsatisfactory for other reasons.

A prevalent theme in patient questionnaire responses was an interest in holistic care. In this context, we note that patients were highly receptive to previously unfamiliar concepts introduced in the group sessions and that a substantial number of patients reported modifying their diet and lifestyle as a result of attending the clinic. We were not surprised that patients' suggestions for improving the clinic focused strongly on access; this finding reflected the limited resources currently available to the clinic.

A strong economic case can be made in support of providing CAM care via the internal CHCC mechanism. National survey data¹³ suggest that CAM availability is an important consideration for two thirds of consumers when selecting a health plan. The CHCC represents a mechanism for meaningfully accommodating this demand within the culture of the group model HMO while introducing efficiency that was previously associated with group clinics.⁸ ♦

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References

1. Kessler RC, Davis RB, Foster DF, et al. Long-term trends in the use of complementary and alternative medical therapies in the United States. *Ann Intern Med* 2001 Aug 21;135(4):262-8.
2. Gordon NP, Sobel DS. Use of and interest in complementary and alternative therapies among clinicians and adult members of the Kaiser Permanente Northern California Region: results of a 1996 survey. *Perm J* 1999 Summer;3(2):44-55.
3. Noffsinger EB. Increasing quality of care and access while reducing costs through drop-in group medical appointments. *Group Practice Journal* 1999 Jan;48(1):12-8.
4. Noffsinger EB. Answering physician concerns about drop-in group medical appointments. *Group Practice Journal* 1999 Feb;48(2):14-21.
5. Noffsinger EB. Benefits of drop-in group medical appointments to physicians and patients. *Group Practice Journal* 1999 Mar;48(3):21-8.
6. Noffsinger EB. Establishing successful primary care and subspecialty drop-in group medical appointments in your group practice. *Group Practice Journal* 1999 Apr;48(4):20-8.
7. Noffsinger EB. Physicians evaluate the impact of drop-in group medical appointments on their practices. *Group Practice Journal* 1999 Jun;48(6):22-33.
8. Beck A, Scott J, Williams P, et al. A randomized trial of group outpatient visits for chronically ill older HMO members: the Cooperative Health Care Clinic. *J Am Geriatr Soc* 1997 May;45(5):543-9.
9. Sharma HM, Clark C. Contemporary Ayurveda: medicine and research in Maharishi Ayur-Veda. New York: Churchill Livingstone; 1998.
10. Sharma HM, Alexander CN. Maharishi Ayurveda: research review. Part One: Maharishi Ayurveda and TM. *Complementary Medicine International* 1996 Jan-Feb;3(1):21-28.
11. Sharma HM, Alexander CN. Maharishi Ayurveda: research review. Part Two: Maharishi Ayurveda herbal food supplements and additional strategies. *Complementary Medicine International* 1996 Mar-Apr;3(2):17-28.
12. Nadkarni KM. Indian materia medica with Ayurvedic, Unani-Tiobbi, Siddha, allopathic, homeopathic, naturopathic & home remedies, appendices and indexes. 3rd ed, revised and enlarged by AK Nadkarni. Bombay: Popular Book Depot; 1954.
13. Landmark Healthcare. The Landmark report I on public perceptions of alternative care: selected findings [Web site]. Available from: www.landmarkhealthcare.com/98ttrl.htm (accessed September 26, 2002).

It's Really Pretty Simple

It's really pretty simple from the members' perspective.
It amounts to this: "Answer the phone; meet my needs;
and treat me with dignity and empathy."

— Jay Crosson, MD, quoted by Jon Stewart in *Improving the Health Care Value Equation: Access, the Care Experience and Resource Management*. The Permanente Journal Winter 2000