AN ABSTRACT OF THE THESIS OF

Alicia J. Logan for the degree of Honors Baccalaureate of Science in Sociology presented on May 20, 2013. Title: Integrating Complementary and Alternative Medicine within the Coordinated Care Model.

Abstract Approved:

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Viktor E. Bovbjerg

The purpose of this paper was to consider whether the integration of complementary and alternative medicine within coordinated care organizations would be possible and beneficial. Per capita health expenditures in the Unites States are greater than any other nation's in the world. However, many complain that the organization and distribution of treatment and care is less than ideal. A primary issue credited for high spending in healthcare, is the treatment and care of the chronically ill. Hoping to decrease healthcare costs, improve care, and improve the health of Americans, coordinated care organizations (CCOs) have formed nationwide. Recently, the United States has also begun observing an increase in the number of individuals using complementary and alternative medicine (CAM). An analysis of CCOs and CAM found that many of their primary goals are very similar, if not identical. Both believe in treating the whole patient, being patient-centered, and promoting preventive health. Additionally, CAM and CCOs share a focus on the chronically ill. The popularity of CAM also supports its marriage with CCOs, as doing so would provide the most accurate model of completely coordinated care.

Key Words: Coordinated Care Organizations, Alternative and Complementary Medicine, Future Healthcare, Chronic Disease, Prevention

Corresponding e-mail address: logana@onid.orst.edu

Integrating Complementary and Alternative Medicine within the Coordinated Care Model

By

Alicia J. Logan

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APPROVED:

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Mentor, representing Public Health and Human Sciences

_____

Committee Member, representing Public Health and Human Sciences

_____

Committee Member, representing Philosophy

_____

Chair, Department of Sociology

_____

Dean, University of Honors College

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Alicia J. Logan, Author

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INTRODUCTION

Health expenditures in the United States surpass any other nation's in the world, reaching $7,538 per capita in 2008.[1] In comparison, Switzerland, which ranks second in its health expenditures, spent $4,627 per capita that same year.[1] One of the largest differences between healthcare in the United States compared to the rest of the world is its treatment and care of the chronically ill.[1] WHO defines chronic diseases as those lasting a long duration and slowly progressing, such as heart disease, stroke, cancer, chronic respiratory disease, and diabetes.[2] In 2005, approximately 133 million Americans had at least one chronic condition, or nearly fifty percent of adults.[3,4] Today, chronic diseases are responsible for nearly 70% of deaths in the United States, making them "the most common, costly, and preventable of all health problems in the U.S." according to CDC.[5,3] In 2001, the cost of treating chronically ill patients accounted for 83% of the United States' healthcare expenditures, most of whom were elderly.[4] It is estimated that 76% of Medicare's annual spending goes to the treatment of chronically ill patients.[1] Despite the substantial attempt to treat and care for the chronically ill, the number of cases continues to rise, suggesting prevention might be a more ideal focus. While preventive care was previously seen as a low priority,[6] recent research considering certain dietary supplements, nutrition, stress management, exercise, and financially-motivated changes within the healthcare system have prompted a shift within the medical field towards a greater focus on prevention and overall patient well-being. One of the most

recent examples is the popularity of coordinated care systems (CCOs), which aim to connect healthcare services, be patient-centered, and emphasize primary and preventative care.[7-9]

Outside the medical field, the general population is also becoming increasingly concerned with prevention and general well-being, evident by the growing popularity of complementary and alternative medicines (CAM).[5,10-13] The National Center for Complementary and Alternative Medicine (NCCAM) defines CAM as medical and health care systems, practices, and products outside conventional medicine.[14] Acupuncture, yoga, massage therapy, spinal manipulation, Chinese medicine, and dietary supplements are all common examples of CAM, though there are many others ranging from simple meditation to the manipulation of various energy fields.[14] In 2007, nearly 40% of Americans age 18 or older were practicing some form of CAM, with the majority of users being patients with one or more chronic disease.[14] Most likely to use CAM are patients who suffer from arthritis which, along with associated conditions, is the leading cause of disability in the United States.[5] Among cancer patients, CAM use ranges between 28% to 91%, with percentages seeming to rise progressively to the present.[11] Interestingly, CAM use continues to grow in the American population despite the fact that many users are paying for these treatments out of their own pockets.[15] The popularity of CAM and the formation of CCOs both appear to be occurring in response to our country's need to reduce healthcare costs, an overall dissatisfaction with the current healthcare system, and a demand among patients for more holistic and personable care.[5,6,16-18] Both developments also share a primary focus of treating and caring for the chronically ill, as

well as prevention.[1-4,6] As a pre-medical student with my own interest in complementary and alternative care, I wondered if, given their similar goals, CAM and CCOs could be integrated together to form the ultimate integrated model for overall care. The following paper explores my idea.

COORDINATED CARE – A NEW VISION UNRAVELS AN OLD PROBLEM

With promises of reducing healthcare costs and increasing disease prevention, a recent push towards coordinated health care is emerging in the United States today.[19] Coordinated care, "...delivers systematic, responsive and supportive care to people with complex chronic disease care needs and includes: (1) coordination and management of health care services for an individual client to create a comprehensive and continuous experience; (2) coordination of providers to encourage team work and shared knowledge; and (3) coordination of service delivery organizations to create an integrated network."[7,p. 622] Though there are various models, the general theme of coordinated care is to be patient centered and encourage a team mentality between physicians and patients so that both are equally involved in the treatment process.[7,19] According to the definition provided by the Oregon Health Authority website, CCOs create a network of healthcare providers, thereby attending to a patient's physical health, addictions, mental health, and even dental care in some programs. Oregon's own CCO programs – which began in August 2012 as part of the Oregon Health Reform – focus primarily on prevention of illnesses, chronic diseases, and helping patients overcome addictions.[19] Currently, there are 15 community-level CCOs running in Oregon, all aiming to "improve the lifelong health of all Oregonians; increase the quality, reliability, and availability of care for all

Oregonians; and lower or contain the cost of care so it is affordable for everyone" through patient centered care and prevention focus.[19] Done correctly, coordinated care can help ensure all clinicians involved in given patient's care are aware of diagnoses and treatments a patient is receiving from other physicians, allowing for smoother transitions among specialists and primary care. In this way, diseases can be more tightly managed, thereby improving transitional care which relates to an increased likelihood of recovery and decreased chance of rehospitalization.[20] Ideally, coordinated care is especially beneficial to elderly patients and patients with chronic diseases, as they often require a team of specialists and physicians to care for them.[19,20]

Coordinated care is not a new idea. In the 1990s, the United States made its first attempt to coordinate health care, but failed due to financial losses accredited to poor planning and execution.[21] Organizational planners merely "bolted together various providers, such as doctors and hospitals, and mechanisms, such as disease management and population health management, hoping the combinations would work."[21, p.2409] Additionally, digital medical records did not exist in the 1990s, making coordination more of a challenge even if planners did make sensible programs.[21] As a result, the 1990s coordinated programs were unsystematic and, ironically, uncoordinated.[21] One of the main weaknesses in past models, though, was their lack of focus on the chronically ill; a mistake most current programs, like Oregon's, do not seem to be repeating.[21,19] Many current CCOs also have access to digital medical records (DMR), which allow for better communication between specialists, and coordinators appear more inclusive and systematic in their approach.[19, 21] A few CCO programs, such as those in the United

Kingdom and Australia, have even gone beyond DMR, and coordinate care by using registered nurses (RNs) as assistants for patients going through multiple healthcare treatments.[8] In this way, patients are provided with a consistent health advisor, or guide, even though they may see multiple specialists. Studies of such programs show them to be most successful when the RNs have been respected and accepted by the various physicians, thereby allowing them to easily move throughout the program.[8] These findings show the value of a teamwork approach to patient care, so long as all team members are valued.

Having a team mentality among health professionals, patients, and the overall community is one of the defining elements of a successful CCO, and one of the main goals highlighted on Oregon's CCO website.[19] Without better communication and coordination, U.S. health care will remain highly specialized and fragmented, a trait which has lead the U.S. to spend more money on healthcare per capita than any other country in the world.[22] Moving our focus away from specialization, and toward primary and preventive care, is thought to be one of the greatest ways CCOs can minimize healthcare costs.[1,3] However, primary care physicians do not need an increase workload, which might occur if they are expected to see more patients, or appointed as care coordinators. According to one study, primary care physicians would need to work 3.2 additional weeks every year to coordinate the specialized care received by chronically ill patients living in a patient-centered medical home.[21] Physician burnout is already a common phenomenon, resulting in a decreased level of patient satisfaction.[23] In order to promote primary care, but also prevent further physician burnout, programs should

provide primary care physicians with additional support and resources.[21,23] Such support might be found through use of complementary and alternative medicines. CAM could aide conventional primary care, especially with preventive treatment and with the care of chronically ill patients. This notion – that CAM could work alongside primary care within coordinated care systems – will be further examined in the following sections of this paper.

COMPLEMENTARY AND ALTERNATIVE METHODS AS AN ADDITIVE

The National Institute of Health's Center for Complementary and Alternative Medicine defines complementary and alternative systems as the following:

> A group of diverse medical and health care systems, practices, and products that are not generally considered part of conventional medicine...the boundaries between CAM and conventional medicine are not absolute, and specific CAM practices may, over time, become widely accepted. "Complementary medicine" refers to use of CAM together with conventional medicine, such as using acupuncture in addition to usual care to help lessen pain..."alternative medicine" refers to use of CAM in place of conventional medicine.[14]

In 2005, NCCAM divided CAM into five main categories: *alternative medical systems* such as traditional Chinese medicine; *mind-body interventions* such as meditation; *biologically based therapies* such as herbs, food, and vitamins; *manipulative and body-based therapies* such as massages; and *energy therapies* such as Reiki.[11] Common to all of these subcategories, is the overall mind-body approach to health, and the belief that patients should be treated holistically, and on an individual basis.[6,14] CAM also emphasizes searching for the underlying causes of an illness, such has diet or emotional or chemical imbalances, as opposed to the approach of conventional care which focuses

primarily on patients' acute symptoms.[6,17] While acute care is beneficial in many cases, for long-term and complex illnesses a holistic approach seems more valuable, ergo its appearance within the CCO model.[3,20] In fact, many of the goals of CCOs are already found within the beliefs of CAM, allowing for an easy marriage between the two. The following tables show a general comparison of the two health care methods, which will be discussed in the next section of this paper.

Table 1. Similarities between CAM and CCOs

Similarities between CAM and CCOs		
	CAM	**CCOs**
Philosophy	Heal the whole person	Heal the whole person
Multidimensional	Combines multiple practices from various philosophies; accepts various beliefs and ideas into care program	Expand care by connecting specialities within healthcare; care teams
Patients who benefit the most	Chronically ill	Chronically ill
Use in preventive care	Useful in preventive care through promotion of a healthy lifestyle	Useful in preventive care through promotion of a healthy lifestyle
Patient Care	Patient-centered	Patient-centered
Role of Patient	Patient plays an active role in the healing process. Focuses on patient empowerment.	Patient plays an active role and is considered part of the healthcare team
Approach to Health	Mind-body; treats the whole body and looks at underlying causes for disease	Treats the whole body by building a network of health care providers

Table 2. Differences between CAM and CCOs

Differences between CAM and CCOs		
	CAM	**CCOs**
Approach to Healing	Uses methods outside of conventional care	Uses conventional medicine
Acute Care	Not very useful for urgent treatment	Conventional medicine is more appropriate for treating acute illnesses
Chronic Care	Better tailored for long term care or prevention	Hopes to improve long term care and prevention in comparison to traditional conventional methods
Public Acceptance	Gaining popularity among the general public	Popular among the general public, though there is growing dissatisfaction with conventional care in general.
Medical Acceptance	Not widely accepted in the professional medical field, though beginning to gain recognition as a valuable method for healing	Growing acceptance and popularity
Support by research	Very little research, and many scientific studies are inconclusive	Vast amount of research is available on the benefits of various conventional practices and specialties, as well as team care, though not CCOs specifically
Benefits to Health	Vary, some patients do immensely better with CAM use while others do not	Generally well known impact to health, particularly short term. Team and integrated care effects well known, but CCO benefits not yet documented

Reimbursement	Some CAM practices are reimbursed, though the majority of CAM users pay "out of pocket"; mostly fee for service.	Global payment based on outcomes and insurance;

Philosophies and Multidimensionality

CAM and CCOs are both developed with the intention of providing holistic care to patients. In the case of CAM, patients are cared for using various beliefs and practices from around the world, such as meditation, acupuncture, and herbs.[11] In CCOs, overall wellness is provided through the coordination of multiple specialties within the medical field.[19] Notice that, in both of these systems there must be a willingness among providers to collaborate with one another to provide optimal care for the patient(s), and incentives for them to do so. This requires a certain amount of open-mindedness from all parties involved, so that the best combination of healing practices can be found. Within the CAM realm, there is acceptance of multiple nonconventional practices, and in CCOs there is acceptance of multiple specialties generally available through conventional care.

CAM and CCOs agree that to treat a patient holistically, there must be multiple methods of care available. However, the terms "holistic care" and "mind-body treatment" are used somewhat differently between the two developments. In CCOs, holistic care seems to refer to the coordination of multiple conventional treatments. Patients in need of both mental and physical treatments are able to see specialists of each, and under the CCO model these specialists are able to communicate with one other. In this sense, CCOs provide mind-body care. In the case of CAM, the mind and body are historically much more interconnected. Within CAM mind-body medicine especially, it is believed that the

health of the mind influences the health of the body, and treatment of the mind can aide in treating the body.[14] In a sense, this allows CAM to attend to a person's spiritual well-being, defined here as a feeling of internal balance and wellness, or lack thereof. Being mindful of individuals beliefs and their definition of wellness equates to considering their views on internal balance, or taking into account their soul. CAM is known for having methods of practice which attend to the soul,[11] while conventional medicine is historically not. However, the developments of hospices and palliative care do suggest a movement towards increasing attention to the soul within conventional medicine. Therefore, the goal to provide holistic care that includes the mind, body, and spirituality might be considered a similarity between CAM and CCOs which could support a marriage between the two.

Other examples of successful integration of CAM beliefs and/or practices within conventional medicine, aside from hospices and palliative care, are acupuncture and chiropractic work. Both practices are commonly seen within conventional medical settings, and are even covered by a few medical insurance companies. More specific examples are the Health and Healing Clinic at the California Pacific Medical Center (CPMC)[16], and the Kaiser Permanente health plan.[24] These examples – which will be further examined within the following sections – provide the earliest examples of how integration can successfully occur when all members of the treatment team are open-minded and willing to work together.

Benefits to the Chronically Ill

One distinct similarity between CPMC, and its associated clinic, and Kaiser Permanente is their focus on CAM for the care of chronically ill patients, or patients with complex cases.[19, 25] In a report of the Health and Healing Clinic, the majority of patients were described as having "complex medical problems, often involving multiple organ systems and associated with moderate to severe symptom intensity that had not been resolved with conventional medical treatment."[16, p.552] On Kaiser Permanente's list of reasons to use alternative therapies "chronic pain" is listed as "the most common reason to see alternative care, especially when conventional care alone isn't working."[25] Therefore, one of the reasons CPMC and Kaiser reach out specifically to the chronically ill in their integrated programs is CAM's popularity among chronically ill individuals.[5,25]

The 2002 National Health Interview Survey (NHIS) found that adults with two or more chronic diseases are 50% more likely to report ever using CAM than adults without a chronic disease, and 25% more likely to report using CAM within the past 12 months.[5] The relatively high percentage of chronically ill patients choosing CAM can be largely attributed to CAM's reputation for focusing on underlying issues of a disease, and approaching both illness and wellness as multifaceted.[27] In order to heal an illness and become well, an individual requires multiple types of care, according to the CAM philosophy.[27] This is also the general approach CCOs aim to adopt, as they become more focused on coordinating multiple care units to make treatment and care of chronically ill patients more effective and efficient.[19,20] The main point to realize here is both CAM and CCOs aim to care for chronically ill patients through the coordination of multiple

treatments by looking at health as a multifaceted state of being. Chronically ill patients have a history of being attracted to CAM beliefs and practices, ergo its inclusion within CCOs would likely be well received by this targeted group.

Useful Preventive Care

Besides treating the chronically ill, CAM and CCOs are also valued as preventive practices. While the effectiveness of primary prevention is difficult to measure – the very essence of prevention means the disease failed to developed, which may or may not have been the result of some treatment – studies have shown the health benefits of proper nutrition[24,28], exercise, and cessation of habits such as smoking and excessive drinking.[24,29,30] All of these preventive measures are supported within CAM and CCOs. CAM believes in promoting entire wellness – including body, mind, and soul – through various methods of treatment such as meditation, herbs and dietary supplements, yoga, and acupuncture just to name a few.[25] By combining multiple methods of conventional care, CCOs also aim to attend to the well-being of both body and mind, while also emphasizing prevention.[19] Not only do CAMs and CCOs appear to share the common goal of helping chronically ill patients, but also the hope of lowering the number of chronically ill cases through promotion of a healthier lifestyle.

Two of the largest barriers inhibiting the success of disease prevention programs is the social environment surrounding patients and their socioeconomic status. Either together or separately, these factors significantly impact a person's health, their ability to heal, and their motivation to choose a healthy lifestyle.[29] Therefore, a combination of patient support, patient autonomy, and inclusion of projects working towards bettering

the community, can aid in preventing future illnesses, especially chronic diseases. This type of foundational doctor-patient-community relationship is advocated in both ideal CAM and CCO practices – especially the doctor-patient relationship, which greatly influences the likelihood of a patient succeeding in improving his or her health. While it is true every patient is different, therefore desiring a unique type of doctor-patient relationship, one general theme often promoted as ideal is care which is patient-centered.

Patient-centered Care

The term "patient-centered care" is often designated as the ideal method of healthcare, with little explanation of its definition. For the purpose of this paper, patient-centered care is considered the result of both patient and doctor entering the situation with empathy, and with the intent of forming a partner or team relationship.[26] Studies of patient-centered care have shown its positive influence on health outcomes, disease self-management, and adherence to treatment regimens.[26] Supplemental to the idea of patient-centeredness are provider support and patient empowerment, with the presence of one or both positively affecting the doctor-patient relationship, and the likelihood of patient healing.[26] Healthcare providers and programs which emphasize patient-centeredness, support, and empowerment can be especially valuable for the care of patients with complex cases, such as those with one or more chronic diseases, because their treatment is often long term and highly involved. The same can be said for preventive care, as patients who feel more involved with, and in control of, their health treatment will likely take a more active role in their health.

While CCOs ambitiously plan to become patient-centered – primarily in the hope that it will result in fewer health disparities, thereby decreasing medical spending – CAM has historically been known for this care approach, and for promoting and increasing the levels of patient empowerment, involvement, and health autonomy.[26] In fact, one of the common reasons patients choose to leave conventional medicine in favor of CAM, or decide to integrate CAM in some way, is its reputation for having a team-like relationship between health care providers and patient.[5,18,26] This quality of care is one of the main reasons credited for CAM's success in treating patients.[26] As mentioned earlier, it is common in CAM settings for healthcare providers to listen to patients personal beliefs and their opinions regarding their health and wellness.[11] In terms of promoting prevention, CAM physicians are nearly twice as likely to discuss and counsel patients on their diet, physical activity, and stress management than conventional health specialists, according to one survey completed in Australia.[15] Whether CAM treatments are effective by conventional evidence standards seems less important than what benefits might be gained from adopting CAM's approach to building a strong and lasting relationship between doctor and patient, and empowering the patient to take care of their own health. The development of CCOs even supports this argument, given that these programs still provide conventional treatment but with the mindset of working as a team. The relationship CCOs are striving to develop is already prevalent within CAM. This similarity provides yet another bridge between the two developments.

DANGERS OF AVOIDING INTEGRATION

As mentioned before, the popularity of complementary and alternative methods continues to rise in the United States, despite the fact that many are not covered by insurance companies, nor part of conventional medical care.[11,14,15] According to the 2007 NHIS, nonvitamin/nonmineral products – the most popular form of CAM treatment – are used by approximately 17.7 percent of American adults.[14] Unfortunately, patients rarely report use of CAM to their conventional physicians; the most likely are arthritis patients at only 30%.[5] Reasons for lack of communication vary. One study, which focused on CAM use among cancer patients, found the most common reason to not disclose CAM use was that patients did not feel it was important for their doctor to know, and the doctor never asked.[11] Other common excuses were that patients felt their doctors did not support CAM use – and therefore they do not want to appear foolish for following CAM beliefs – or felt that discussion of CAM use is a waste of appointment time.[11]

The lack of communication between physicians and patients when it comes to CAM use is especially worrisome considering that most patients who use CAM gain their knowledge about such practices and products through friends, family, or the media, all of which are possibly unreliable sources.[11] While most CAM practices are relatively safe, personally prescribing oneself certain supplements and herbs is not without potential risks. For example, the plant ginseng has reportedly been used to improve stamina and concentration as well as work as an antidepressant, diuretic, and sedative.[5] However, the plant can have opposite effects on people with cardiovascular disease, hypertension or hypotension, or diabetes.[5] Ginko biloba is another commonly used herb that may lead to

negative side effects when used in combination with drugs, such as increased risk of bleeding when taken with aspirin.[5] Although scientific studies on CAM treatments such as the two just mentioned have increased over the years,[5] the safety and efficiency of many are still unknown or not fully understood.[11]

The lack of scientific studies on CAM, and the low percentage of patients reporting CAM use provide two strong arguments for why CAM should be included within the CCO model. If CAM was considered a part of regular medical treatment, patients would be more inclined to admit CAM use to their physicians. They might also more seriously consider the potential side-effects of CAM treatment, and use the methods more cautiously. Inclusion of CAM within the conventional medical realm might also serve as incentive for more research on such practices. Strong scientific evidence of the benefits of certain CAM practices would likely help with integration as Western medicine is very evidence-based, and therefore more easily accepts practices supported by research. Of course, it is also important to remember that, for some, the fact that a certain practice has been used for centuries is validation enough for its use. A patient's personal reasons for CAM use should not immediately be discredited when there is no scientific evidence for its use. Even if such use is merely working as a placebo, it may still benefit the patient in some way. Alternatively, a patient's decision to continue CAM treatment, even when there is no evidence supporting it, may delay the start of potentially more effective treatment through conventional medicine. The important message here is that integration of CAM could provide reason to scientifically study such practices, which could perhaps lead to greater validation of such uses and therefore easier acceptance.

Research might also provide information related to the safety of certain CAM uses, which is equally important. Strong evidence against certain CAM treatments might persuade CAM-focused patients in need of conventional treatments to reconsider their medical regimen.

Apart from better awareness of an individual's overall care regimen, avoiding the integration of CAM within the coordinated care model may result in the loss of a more cost-effective program. In the most obvious way, individuals who leave conventional care in favor of CAM would remain patients of the coordinated care system if CAM were integrated within the CCO. Additionally, the overall average cost of CAM care is less than conventional care, and treatment plans combining CAM and conventional care have shown to be beneficial for some, without involving additional cost.[18] If CAM and conventional care were combined into a single coordinated care program, patients could be initially offered cheaper CAM options that may resolve their health problems, thereby leading to fewer cases requiring more intensive and expensive resources later.[18] Programs could also choose to offer CAM to patients when the effectiveness of conventional medicine does not outweigh its cost or its potential side effects.[18] For example, calcium AEP is often used in Germany for patients with multiple sclerosis.[18] Although lack of widespread research on the benefits of calcium AEP for palliative care has prevented its acceptance in other conventional healthcare programs, the research that has been done supports its effectiveness.[18] Another example is the fruit extract saw palmetto, which is used to relieve benign prostate problems.[18] Again, lack of scientific research limits the acceptance of saw palmetto, though willingness to do so could provide a cheaper but

effective alternative to the medicines currently administered for benign prostate problems.[18]

The two examples just mentioned provide even more support for increased research on CAM, and the acceptance of certain CAM practices within CCOs. When CAM offers a cheaper but equally effective alternative to conventional medicine, its use should be provided as an option to patients. The cooperation of CAM and conventional care could mean easier access to all healthcare options for the patient, allowing them to better formulate their ideal treatment plan based on personal beliefs and financial situation. This agrees with the idea of empowering patients, by including them more in the creation of their healthcare regimen.

POTENTIAL CHALLENGES AND SUCCESSFUL EXAMPLES

The two greatest challenges of integrating CAM into the coordinated care model is validation of CAM use and the acceptance of each medical practice by the other. A somewhat general trait of CAM treatments is their "grab bag" approach to finding the ideal treatment plan for patients.[17] In a sincere attempt to be holistic, patients and physicians are often left exploring various treatments, targeted at finding various underlying causes to the apparent illness, or illnesses.[17] Arguably, though, this approach to care is also becoming common within conventional medical settings as diseases and prescription regimens become more complex. While general biomedicine, the foundation of coordinated care, is ideal for treatment of acute diseases, the United States' continuing rise in the number of chronic disease cases has left some accusing conventional care of being too objective, deterministic, and positivistic.[6] In a sense, both methods appear to be

challenged in discovering the ideal regimen for a patient. What appears most valuable, then, is a trusting and positive relationship between the patient and healthcare providers. This doctor-patient relationship allows physicians to offer and test multiple treatments without losing the faith of their patients. As mentioned in a previous section, teamwork relationships are a cornerstone of CAM care. Therefore, CAM's integration within conventional care could offer a framework for the development of similar doctor-patient relationships within all medical specialties.

The second major challenge, the acceptance of each medical practice by the other method, can be addressed by reminding both practices of their similarities, and that a combination of the two could provide an optimal method of care. CAM and CCOs are both built with the intent of providing holistic care to patients. They each offer their practices in an attempt to help, maintain, or improve an individual's health or quality of life.[6] Both developments practice multidimensionality, so all that remains is to include each other in their accepted dimensions. Even though CAM's benefits might not be as well documented as those of conventional medicine,[18] CAM does provide methods of holistic healing and team building currently not found within conventional medical settings.[6,18] Conversely, conventional medicine provides methods of care not found within CAM practices, so that "CAM practices may help offset the limitations of biomedical/allopathic practices, and the best of biomedicine could help offset the limitations found in CAM."[6, p. 342-3]

The two examples of successful integration between CAM and conventional medicine already mentioned are CPMC's Health and Healing Clinic[16,24] and Kaiser

Permanente.[25] Since being founded in 1994, the Health and Healing Clinic has continued to serve the whole person by providing "services and therapies...drawing from a combination of Western medicine and proven healing practices from around the world...our programs use an evidence-based approach...that includes many Western-trained practitioners who are also experts in complementary therapies."[24] In this context, the term "evidence-based approach" means two things. First, CAM use is critically examined by the doctors administrating the care.[24] The majority of the doctors practicing in the clinic are Western-trained but also experts in CAM,[24] suggesting that perhaps the best way for integration to occur is during training, for instance within medical schools. If CAM classes were available to medical students, then integration would naturally occur. The second way the clinic is "evidence-based" is through the CPMC Research Institute, which does its own research of CAM therapies.[24] Today, the Health and Healing Clinic serves over 70,000 patients a year, specializing in preventive care and chronic disease.[24] Although coordination of conventional medicines and CAM in this setting is primarily accessible through doctors trained in both specialties, this does not necessarily need to be the case. So long as doctors from both fields are willing to work together, and listen to each other, extensive knowledge of both CAM and conventional medicine does not need to become a requirement for every physician. However, in the future, integration through education may be the easiest and best option. Whether integrated education should become a requirement or merely an option is beyond the scope of this paper.

Kaiser Permanente's health plan boasts delivery of integrated healthcare for over 60 years, and was ranked the top health care plan by the National Committee for Quality

Assurance (NCQA).[30] Along with typical conventional treatments, Kaiser coordinates CAM options as well, under the "Health and Wellness" section of its website.[25] Their webpage goes over the benefits of complementary care, and the importance of informing any conventional physicians of CAM treatment.[25] The website also provides multiple reasons patients might choose to use alternative therapies, including its use alongside conventional care, due to personal and/or cultural beliefs, to manage pain, the possibility of fewer side effects, greater overall control of care, for the simple fact that it feels good, to aid in making lifestyle changes, and for greater mind-body connection.[25] The majority of these have already been discussed in this paper, but what is important to realize is Kaiser's willingness to accept and include CAM beliefs and medicinal approaches within the rest of its coordinated care program.

CONCLUSION

Concerned by the large percentage of chronically ill individuals in the United States today[3], and the amount of money spent annually on such cases[1], this paper aimed to explore alternative routes of treatment and healing outside conventional care. More specifically, I wanted to look at the benefits and drawbacks of both coordinated care programs and complementary and alternative methods, and consider how a synthesis of the two might provide better care than either could provide alone. An analysis of CCOs showed that, though their philosophies and intentions appear ideal, their success relies on continuously having a tightly coupled system, a focus on the chronically ill and prevention, and the presence of some main coordinator that connects all health specialties for a patient.[21] Concerning the best candidates for the main coordinator position, some

suggest RNs or specialty nurses (e.g. NPs),[8] while others see primary care physicians as the ideal center person.[21] However, the expectation that specific medical personnel should take on the additional role as primary coordinator seems extremely taxing, and could easily lead them to overwork and burnout.[23] This led to discussion of whether the responsibility of coordination could be shared by those physicians who primarily focus on preventive care and treatment of chronically ill, namely primary physicians and CAM providers.

In many ways, CAM and CCOs approaches to healing are very similar. Both promote patient-centered care, and want to treat the patient holistically, and as part of a team alongside healthcare providers and the overall community.[15,19] CCOs and CAM are also similar in that they largely benefit chronically ill patients and patients in need of preventive care.[15,19,24] However, while CCOs are still rather new and in the development process, CAM have been providing the team-like doctor-patient relationship for years, which is one of the reasons its popularity continues to rise.[5,18,26] Therefore, the foundation of CAM practices might provide a sort of blueprint for CCOs in how to implement certain components to care, such as teamwork-like doctor-patient relationships and mind-body healing.

The rising popularity of CAM is another argument for its integration. If CAM and conventional care remain separated, the dichotomy of health practices may lead to patients feeling as though they must side with one or the other, preventing them from obtaining their ideal version of complete care. They may also withdraw from telling conventional doctors about their use of CAM treatments because they do not see any

potential for the two interacting. However, withholding any medical practices outside what is prescribed by a doctor can be dangerous, especially when such practices might include herbs or supplements that are potentially harmful to an individual.[25] Although valid research of CAM approaches is increasing, there are also multiple online sites promoting certain CAM practices and medicines that patients can find on their own. The integration of CAM within CCOs could therefore provide a permanent and reliable source patients could utilize for questions on CAM use, likely leading to safer use of such methods under the guidance of healthcare professionals. One final argument made for integration is the possibility that, by using CAM for some disease prevention and chronic treatment, CCOs could save money when CAM methods are less expensive than the alternative conventional treatments.[18]

The major obstacles facing integration of CAM within CCOs is the acceptance of each one for the other as a valid way of caring for patients. However, given their similarities it seems that an awareness within both methods of their common goals could allow for a successful marriage. Integration does not mean all CAM methods would have to become available through the program, but perhaps those with valid research supporting their use, or those popular among patients could be integrated. A major benefit of including CAM, though, is not only through actual care, but also its care techniques; how CAM approaches the treatment of patients and philosophy of healing. CCOs are useful in providing a way in which individuals can link all of their conventional care specialists into a single program. However, CCOs could also learn from CAM programs about how to treat patients more whole-body, and how to empower and support patients

in their wellness journey. Additionally, as complementary and alternative medicines become more popular among United States citizens, it seems almost natural that it should be included in a system that boasts having all health care providers under a single, coordinated program.

One final suggestion for enabling this system to occur is presented by CPMC's Health and Healing Clinic, which primarily distributes CAM therapies through Western-trained physicians who are also experts in CAM. Their model suggests that the easiest way for integration to occur is if conventional education of primary care physicians also included elements of CAM. With this framework, CAM specialists would be available like any other conventional specialist, and primary care physicians could refer patients to either. Of course, this does not solve the problem of primary care physicians receiving an increased workload as care coordinators under the CCO model, but it does provide a method for integrating two increasingly popular methods of care. As treatment of chronic diseases continues to cost our country billions of dollars every year and prevention becomes more of a focus in medicine, it will be interesting to see how society's views of medicine and treatment change. In my opinion, the change is already apparent with the popularity of CAM medicine, and I wonder if such popularity among the public will become the driving force for integration.

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APPENDICES

Appendix A

Similarities between CAM and CCOs

Similarities between CAM and CCOs		
	CAM	**CCOs**
Philosophy	Heal the whole person	Heal the whole person
Multidimensional	Combines multiple practices from various philosophies; accepts various beliefs and ideas into care program	Expand care by connecting specialities within healthcare; care teams
Patients who benefit the most	Chronically ill	Chronically ill
Use in preventive care	Useful in preventive care through promotion of a healthy lifestyle	Useful in preventive care through promotion of a healthy lifestyle
Patient Care	Patient-centered	Patient-centered
Role of Patient	Patient plays an active role in the healing process. Focuses on patient empowerment.	Patient plays an active role and is considered part of the healthcare team
Approach to Health	Mind-body; treats the whole body and looks at underlying causes for disease	Treats the whole body by building a network of health care providers

Appendix B

Differences between CAM and CCOs

Differences between CAM and CCOs		
	CAM	**CCOs**
Approach to Healing	Uses methods outside of conventional care	Uses conventional medicine
Acute Care	Not very useful for urgent treatment	Conventional medicine is more appropriate for treating acute illnesses
Chronic Care	Better tailored for long term care or prevention	Hopes to improve long term care and prevention in comparison to traditional conventional methods
Public Acceptance	Gaining popularity among the general public	Popular among the general public, though there is growing dissatisfaction with conventional care in general.
Medical Acceptance	Not widely accepted in the professional medical field, though beginning to gain recognition as a valuable method for healing	Growing acceptance and popularity
Support by research	Very little research, and many scientific studies are inconclusive	Vast amount of research is available on the benefits of various conventional practices and specialties, as well as team care, though not CCOs specifically
Benefits to Health	Vary, some patients do immensely better with CAM use while others do not	Generally well known impact to health, particularly short term. Team and integrated care effects well known, but CCO benefits not yet documented
Reimbursement	Some CAM practices are reimbursed, though the majority of CAM users pay “out of pocket”; mostly fee for service.	Global payment based on outcomes and insurance;