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ORIGINAL RESEARCH

Shared Decision Making: A Fundamental Tenet in a Conceptual Framework of Integrative Healthcare Delivery

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Abstract: With the increased usage of complementary and alternative medicine (CAM) in the US comes a need for evidence-based and integrated care systems which encourage open communication between patients and providers. This paper introduces a conceptual framework for integrative care delivery, with shared decision making being the “connecting force” between holistic treatment and improved health outcomes for patients.

Keywords: complementary medicine, alternative medicine, integrative medicine, shared decision-making, patient-provider communication

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Introduction

> *"The greatest mistake in the treatment of diseases is that there are physicians for the body and physicians for the soul, although the two cannot be separated."*
>
> *~Plato*

The use of complementary and alternative medicine (CAM) is increasing. The National Center for Complementary and Alternative Medicine (NCCAM) defines CAM as "a group of diverse medical and health care … practices and products that are not generally considered part of conventional medicine" (referring to Western medicine).[1] "Conventional" medicine is oft-referred to as allopathic, or biology-based medicine, which has emerged as the Western medical model. However, CAM is utilized by nearly half of all industrialized countries and similar or higher rates exist in many developing countries.[2] These practices can be implemented together with conventional medicine, known as "complementary," or in place of conventional medicine, known as "alternative".[1] Particularly in the United States, we are experiencing a shift toward combining the physiologic and technologic dimensions of curing with the spiritual dimensions of healing.[3] The World Health Organization (WHO) recently launched a global strategy on traditional and alternative medicine, focusing on *policy, safety, efficacy, and quality*.[4] Standardization across these dimensions has the potential to increase both access to and knowledge about CAM.

Potential barriers to CAM use and implications. Despite developments in the field of CAM, certain barriers may inhibit its widespread adoption and integration across international healthcare delivery systems. These potential barriers include finances, beliefs that Western medicine is more effective than CAM, lack of knowledge about CAM therapies, and difficulty incorporating CAM into daily routines.[5] For treatments which require accessing a health care provider (as opposed to self-care), lack of accessibility may be an issue.[6] Worries about safety and side effects about CAM therapies are commonly reported.[6–8] Particularly among younger individuals, the approval of family members and significant others can be important factors in individuals' decision to use CAM.[9,10] Certain personal characteristics can also predict use or non-use of CAM. Being male, believing CAM treatments are inferior or ineffective, and lack of physician support for CAM use are all predictors of not using CAM.[6] These actual and perceived barriers highlight the need for continued outcomes research, as well as evidence-based interventions, outreach, and education in the CAM field.

Mind-body health care and patient-provider relationships. Despite advances in technology and the power of emerging genetic and genomic discoveries, patients around the world are still seeking holistic, individualized care that is focused on health of both the mind and the body.[11] A health care provider considering the individual needs of patients has the potential, when implemented carefully, to improve the quality of health care. Much research exists on the importance of patient-provider relationships and how they may affect patients.[12–14] Currently in the US, most patients who present to a primary care provider are scheduled into fifteen-minute visits, even though varying levels in acuity and complexity of conditions may require more intensive attention and longer visits.[15] Expressing concern about patient needs and teaching patients how to control their symptoms are important and necessary in caring for patients in a holistic manner and require focused time and attention on the part of the health care provider.[16] A recent study based in a university hospital in Germany estimated that physicians only spent slightly over four minutes communicating with each of their patients and only 20 seconds with the patients' families, although physicians largely overestimated these numbers.[17] Ben-Arye and colleagues (2012) conducted a study in northern Israel and identified that patients expect that their primary care providers refer them to CAM treatments and participate in building a CAM treatment plan.[18] It is unlikely that a network of integrated practitioners designed to meet the customized needs of a specific patient can be developed in this short amount of time, potentially leaving mind-body needs of each unique patient unaddressed. However, some studies suggest that making provider visits more patient-centered should be focused on "improving dialogue quality" and "efficient use of time" instead of lengthening the visits.[19]

Patients have expressed concern about quality of care in general both in the US and internationally.[20,21] Satisfaction with the care and performance delivered by our health care system is lower in the US than many other countries internationally, and health disparities *within* the US remain cause for concern

because our current model of health care delivery is not adequate.[22] Experts in the field propose training more integrative health care providers to ensure that healthcare is both "high tech and high touch".[23]

Shared Decision-Making and CAM

The paradigm shift from "CAM" to integrative medicine reflects a need for open dialogue between patients and their providers, both conventional and CAM.[24] Shared decision-making (SDM) between patients and providers is ethical, can preserve patient autonomy, considers patient values and preferences, and may lead to improved health outcomes. The conceptual framework introduced in this paper suggests that SDM is a vehicle that can help achieve implementation of integrative health care delivery. In a shared decision making model of care, the patient-provider relationship is interactional in nature, in that both the patient and provider are invested and actively involved in treatment decisions.[25] It has been suggested that health care providers can dominate patient-provider interactions simply because they may be more "knowledgeable" than patients,[26] but incorporating patient desires through *shared* decision-making (SDM) is considered to be ethical by promoting truthfulness and openness while encouraging patient autonomy.[27] Most importantly, SDM has been associated with improved health outcomes across a range of illnesses.[28–31]

SDM has not been fully adopted by primary care providers, but its integration offers much hope for improved outcomes and satisfaction. For example, among certain underserved minority groups in the US who embrace "traditional" health values, SDM has been suggested as a way to address "complex choices".[32] Among all groups, patient "decision aid" tools can increase autonomy and knowledge while decreasing decisional conflict.[33] Providers may be wary of incorporating SDM into routine care, but researchers have repeatedly stressed the ethical responsibility of providers to improve communication and fully discuss treatment options.[34,35] Some treatment decisions may be emotionally charged, but Politi and colleagues (2013) recommend that "managing uncertainty requires participation and collaboration from patients, families (if appropriate), and clinicians".[36, pg 123S]

Across the continuum of care, shared decision making has the potential to introduce individuals to CAM modalities through an integrative approach thus fostering a partnership that maximizes patient-centered outcomes. These approaches may be particularly relevant for patients with chronic diseases who are seeking to improve overall quality of life.[24] One study found that "lifestyle changes" (diet, exercise, etc) were preferred by patients over medication. These preferences were made available to providers, but were only considered/assessed by providers in 20% of patient-provider encounters.[37] A lack of open communication and SDM may prevent patients from properly utilizing and obtaining maximal effectiveness of CAM approaches. Patients who perceive that their physicians use participatory decision making methods are more likely to discuss CAM use with their physicians.[38] Although there is potential for integrative approaches to make care plans more patient-centered, the acceptability of specific interventions to both patients and providers can affect their utilization.

In order for patients to benefit from the integration of CAM into their care, providers require training and education on CAM treatments as well as the referral process for integrating the modalities into the care of their patients. Medical education related to integrated approaches to care and CAM therapies has been suggested as a way to directly enhance doctor-patient communication and improve shared decision making.[24] Current discourse emphasizes the need for this education process to begin as early as residency and continue as an ongoing learning process throughout one's career. Physicians and CAM providers in one study agreed that communicating about mutual patients is important and indicated a preference for medical/referral letters as the means of communication which included information on conventional and CAM treatment interactions.[39] Another study found that communication, patient referrals, and power relationships positively affect collaboration between medical doctors and CAM practitioners.[40] Once primary providers are able to establish networks for patient referrals to additional CAM providers, they can communicate more effectively about proper integration with their patients. Clinicians must weigh the risks and benefits of all possible therapeutic options in addition to considering patient values, beliefs, and *preferences*.[41]

SDM and CAM disclosure. In our previously published community-based study of patients with

rheumatic diseases,[42] SDM significantly predicted both CAM use and disclosure, suggesting that improved SDM interventions may be particularly important for patients who are least likely to disclose CAM use. However, only 59% of patients in our sample reported discussing the use of CAM with their health care provider. CAM was higher among Spanish-speaking patients, but Hispanics were less likely to disclose their use of CAM. Females were much more likely to disclose CAM use.[42] A detailed description of the recruitment methods, sample, and measures can be found in Wallen and Brooks, 2012,[42] Wallen et al, 2012,[43] and Wallen et al, 2011.[44]

Interestingly, the reasons the participants in our sample gave for using CAM focused on several primary themes: not wanting to take pills, complying with doctors "prescribing" CAM therapies, belief that CAM treatments have fewer side effects/are more effective than traditional medicine, and self-care/pain management for their chronic disease (see Table 1 for illustrative quotes supporting these themes). All of these themes reflect patient preferences or beliefs and provider recommendations which should be thoroughly discussed between patients and providers. Providers working to understand patient preferences and unique care regimens, patients who are truly informed about and comfortable with their treatment plans, and a sense of rapport between the two could ease the difficulty of managing painful chronic diseases. Additionally, it could fulfil patients' desires for self-management of symptoms, as outlined in our patients' quotes.

In order for a patient to take control of his or her chronic disease, teamwork between patient and provider is critical. Clinicians initiating discussion about CAM or, at the very least, being receptive to these conversations, can improve communication and openness between patients and their providers.[45] With shared decision-making potentially driving patients towards improved outcomes, disclosure of CAM use is a necessary prerequisite for progress. When patients are empowered to clearly and effectively communicate their beliefs regarding CAM, providers may be more likely to understand their patients' values and preferences and work with the patient to design an integrative treatment plan, utilizing the best of both the allopathic and CAM worlds. This paper conceptualizes how shared decision-making may fit in to integrative medicine delivery systems, with the ultimate goal of improving patient health outcomes and satisfaction.

Conceptual Framework

To more effectively integrate allopathic medicine and CAM, we have designed a framework with SDM as

Table 1. Reasons cited for using CAM treatments.

Reason for using CAM	Quotes
Not wanting to take pills	• "I really believe they decrease inflammation and relieve pain. I want to avoid taking pills, I prefer the herb over the pills."
Complying with doctors "prescribing" CAM therapies	• "… they (doctor) prescribed me exercise so I have to do it."
Belief that CAM treatments have fewer side effects or are more effective than traditional medicine	• "… I look for alternatives that my body is more able to handle." • "*Siento que no tiene effectos secondonia, son medicamentos naturales, me cacu bien.*" ("I feel that I don't have secondary effects from natural treatments.") • "… If my internal reality determines my external reality then I feel I need to look inward. Traditional therapy does not really work so I have tried nontraditional therapy. To regain balance."
Self-care/pain management for chronic disease	• "To be able to control by body and live the way I want to …" • "To become more mobile with my joints. I don't want to be crippled. I want to live by myself and take care of myself." • "To see if it will ease or modify the pain. Anything that is reasonable is worth trying. Do not want arthritis to be crippling." • "To get rid of the pain and make it easier for me to get around more."

the "bridge" connecting the two approaches into one holistic healthcare delivery system (see Fig. 1). This framework is based on the authors' current experience in studying CAM modalities including yoga and hypnosis in clinical settings but the framework itself has not yet been tested. This framework is meant to serve as a summary of the literature on CAM and SDM and depicts potential relationships among these constructs. Our intention is to use this model to evaluate the process and outcomes of integrated care delivery that incorporate SDM as a key component to optimal patient outcomes with an emphasis on sustained healing. Throughout the healthcare delivery continuum, SDM can be incorporated into discussions surrounding prevention measures, treatment decisions, and discussions of patients' goals and anticipated outcomes. SDM may help to facilitate care planning and delivery of interventions that are holistic in nature and more closely aligned to patients' preferences and expectations. The delivery of integrative health treatments could lead to opportunities for improved preventative and health promotion behaviors, adherence, satisfaction, and goal-setting and attainment. Ultimately, patients who experience success with CAM therapies are often motivated to make behavior changes, which can improve and sustain healthy outcomes.[41] This proposed conceptual framework could guide both patients and providers in initiating conversations on the integration of CAM and allopathic approaches to health and wellness and arguably fill a gap in our current public health care system.

Merging allopathic and CAM approaches. On the far left of the framework, we have depicted the

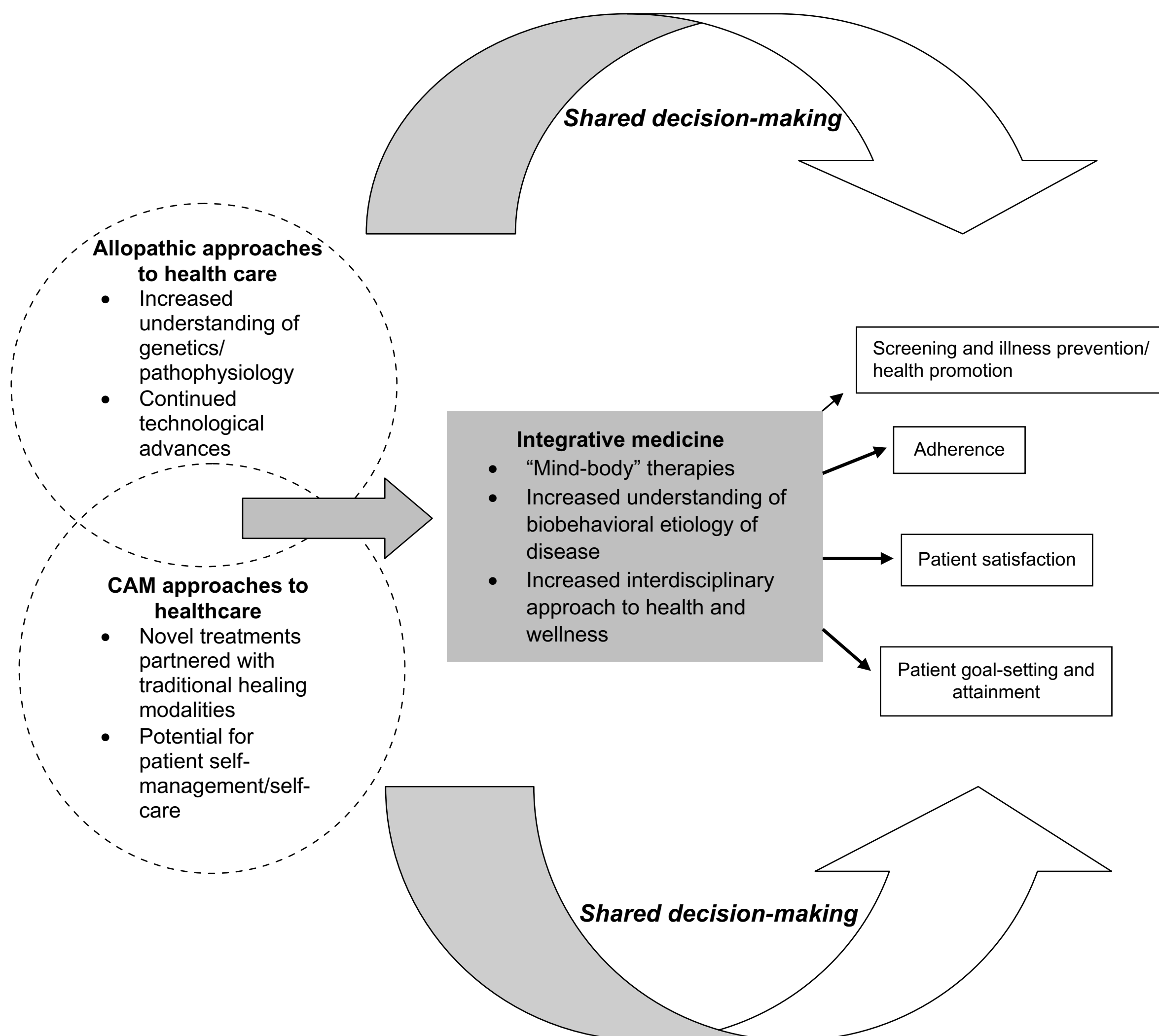

Figure 1. Conceptual framework.

convergence of the allopathic and CAM realms of care. Allopathic medicine is essential to understanding illness, and technological advances can improve and expand health care. However, we argue that integrating CAM modalities, particularly those relevant to self-care in the management of chronic disease, can and should be part of an *integrative health* approach. Using a shared-decision making approach to care delivery while addressing the needs of the whole person, we argue, may lead to improved outcomes.

- *Screening and illness prevention/health promotion.* Integrative practice emphasizes prevention and health promotion, utilizing the physician as a *partner* in the patient's care.[46]
- *Adherence.* Perceived barriers to treatment regimens (specifically medications) can be decreased with integrative health coaching, wherein both patients and providers are involved in creating a care plan.[47]
- *Patient satisfaction.* Patients perceive their own health as better when they are incorporated into an integrative health plan that aligns with their personal values.[47]
- *Patient goal-setting and attainment.* Patients whose providers encourage them to set their own goals may be more likely to achieve their goals. This is inherent to the concepts of integrative medicine and shared decision-making.[48]

Practical suggestions for providers to start the SDM-oriented CAM conversation are needed, and while we do not provide an extensive list we submit the following: (1) identifying the difficulties patients may have understanding treatment options; (2) inquiring about difficulty adhering to previous or currently prescribed treatment; (3) soliciting information on patient values and general preferences for care; and most importantly, (4) asking about patients' current and past CAM use. Allopathic approaches combined with patient-specific CAM approaches can provide a biobehavioral, integrative approach to health care delivery where shared decision-making is utilized to negotiate a sustainable treatment plan which takes into account patient preferences and beliefs with the explicit support of their healthcare provider.

Conclusions/Recommendations

Although awareness and use of CAM is increasing in the United States as well as abroad, successful integration with allopathic treatment approaches remains a challenge. All parties have important roles and a shared responsibility to work toward patient-centered care. Health researchers must ensure that comparative effectiveness research is conducted and the most effective treatments are identified.[49] Providers must identify how CAM fits into their practice and engage their patients in conversations about varying treatment approaches. Finally, patients should be encouraged to seek educational resources regarding their options, and to broach the topic with providers. Meaningful conversations can empower patients to feel in control of their health.

Improved provider-patient communication using an SDM framework may lead to increased understanding and use of mind-body therapies, an increased understanding of disease etiology, and an overall increased interdisciplinary approach to healthcare delivery. When both patients and providers actively participate in individual care planning, the treatment approaches chosen may be ultimately more innovative and holistic. Communication between providers and patients using SDM may also empower patients to set realistic personal health goals. With increased involvement and shared responsibility in care planning, patients may be more likely to initiate and sustain health behavior changes, utilize healthcare services, and adhere to their shared plan of care.

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Author Contributions

Conceived and designed the experiments: GW, AB. Analysed the data: GW, AB. Wrote the first draft of the manuscript: AB. Contributed to the writing of the manuscript: GW, AB, LS. Agree with manuscript results and conclusions: GW, AB, LS. Jointly developed the structure and arguments for the paper: GW, AB. Made critical revisions and approved final version: GW, AB, LS. All authors reviewed and approved of the final manuscript.

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Competing Interests

Author(s) disclose no potential conflicts of interest.

Disclosures and Ethics

As a requirement of publication the authors have provided signed confirmation of their compliance with ethical and legal obligations including but not limited to compliance with ICMJE authorship and competing interests guidelines, that the article is neither under consideration for publication nor published elsewhere, of their compliance with legal and ethical guidelines concerning human and animal research participants (if applicable), and that permission has been obtained for reproduction of any copyrighted material. This article was subject to blind, independent, expert peer review. The reviewers reported no competing interests. The content of this publication does not necessarily reflect the views or policies of the Department of Health and Human Services, nor does mention of trade names, commercial products, or organizations imply endorsement by the US Government.

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