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From parallel practice to integrative health care: a conceptual framework

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Abstract

Background: "Integrative health care" has become a common term to describe teams of health care providers working together to provide patient care. However this term has not been well-defined and likely means many different things to different people. The purpose of this paper is to develop a conceptual framework for describing, comparing and evaluating different forms of team-oriented health care practices that have evolved in Western health care systems.

Discussion: Seven different models of team-oriented health care practice are illustrated in this paper: parallel, consultative, collaborative, coordinated, multidisciplinary, interdisciplinary and integrative. Each of these models occupies a position along the proposed continuum from the non-integrative to fully integrative approach they take to patient care. The framework is developed around four key components of integrative health care practice: philosophy/values; structure, process and outcomes.

Summary: This framework can be used by patients and health care practitioners to determine what styles of practice meet their needs and by policy makers, healthcare managers and researchers to document the evolution of team practices over time. This framework may also facilitate exploration of the relationship between different practice models and health outcomes.

Background

The stimulus for this paper was a recent international workshop [1] designed to clarify and define the concept of integrative health care as it applies to the combination of complementary/alternative medicine (CAM) and conventional health care. A literature review conducted for a pre-workshop background paper highlighted the diversity of thinking about integrative health care and identified that existing definitions tend to be idealistic in nature, view integrative health care as a finite outcome and as a predetermined outcome [2]. The workshop participants, however, described their own attempts at integrating CAM and conventional medicine as a developmental process along a continuum, anchored by their goal of fully integrated health care. Although the idea that a continuum of team-oriented health care practice models exists is not new, [3-5] participants suggested that if further developed, it might provide an important framework for differentiating the concept of integrative health care from other models of team-oriented health care practice. The primary

objective of this paper is to develop a conceptual framework for describing, comparing and evaluating the different models of team-oriented health care practice that have evolved in Western healthcare systems. This framework will provide a context for patients and healthcare practitioners to explore what model best fits their needs; [6] and for researchers, program managers and policy makers to track the evolution of their models over time and to explore the relationship between practice models and health outcomes.

Discussion

Seven different models of team-oriented health care practice are illustrated in this paper: parallel, consultative, collaborative, coordinated, multidisciplinary, interdisciplinary and integrative (see Table 1). Each of these models occupies a position along the proposed continuum from the non-integrative to fully integrative approach they take to patient care (see Figure 1) and are developed around four key components of integrative health care practice: philosophy/values; structure, process and outcomes [2,7,8]. In order to investigate the differences among these models, we will use these four components to illustrate changes along the continuum of team-oriented practice models. We will focus the discussion on general trends, acknowledging that individuality among patients and practitioners exists across all models.

Philosophy

Moving from left to right along the continuum of practice models, team members encounter an increasing diversity of health care philosophies due to the involvement of a wider range of team members from different disciplines and from the increasing involvement of each team member. In addition, there is a greater emphasis on the treatment of the whole person in his/her social, environmental and cultural context and a greater recognition of an increased number and variety of determinants of health [2,9]. Similarly, reliance on the biomedical model of disease tends to decrease as additional theoretical approaches are incorporated.

Structure

Movement along the continuum from left to right coincides with an increase in the complexity of the structure of the team-oriented practice model. This is partially a function of the increasing number of viewpoints and determinants of health that must be considered when decisions are being made and the necessity of developing a structure that enables this to occur. Concurrently, clear definition of roles and formal hierarchical structure decrease as structures that facilitate team building, including the development of trust and respect among the team members, emerge [3,10].

Process

Communication between and among individuals (including the patient) must increase as one moves from left to right along the continuum, particularly as the number of people who are actively involved in the process of care increases. Respect for diversity of opinions and attempts at making consensus-based decisions also increase among practitioners while their individual autonomy necessarily decreases as they are called to work more closely together in delivering patient care [3,10]. There is also an increasing recognition of patients as individuals, who require individualized care and as important members of the team [11]. It has been hypothesized that synergy among the component services, programs and care givers increases as one moves from left to right along the continuum [12].

Outcomes

It is expected that health outcomes will focus more on multiple aspects of well-being as one moves along the continuum. In addition, it has been hypothesized that care may be more cost-effective in the long term as one moves from left to right across the continuum of practice models [12]. The complexity and diversity of outcomes that need to be measured are likely to increase along this continuum since the increasing number of different disciplines contributing to patient care may be expected to affect and assess health outcomes differently and incorporate an increasing number of health determinants [9]. Furthermore, team-based practice models on the right side of the continuum tend to define the concept of improved health not only in terms of physical and mental functioning, but also in terms of well-being and are more likely to stress the importance of assessing patient-defined outcomes.

Applications and implications

The conceptual framework presented here is a step toward comparing different team-oriented practice models. It is impossible to compare care or health outcomes across different types of practice models unless the key differences between the models can be identified and categorized consistently. It could be argued that without a conceptual model such as this one, it is not clear what outcomes should be assessed and how anticipated outcomes might shift as one moves from one practice model to another.

It is important to reiterate the need to link the model of practice with patient needs. A patient suffering from an acute myocardial infarction is likely to benefit most from a practice model that is designed for rapid assessment and intervention (i.e., a model on the left side of the continuum). In contrast, individuals with complex, often chronic conditions have been hypothesized to have better outcomes with team-oriented practice models that pro-

Table 1: Models of Team Health Care Practice

Parallel [3-5]	- characterized by independent health care practitioners working in a common setting - each individual performs his/her job within his/her formally-defined scope of practice
Consultative [3-5]	- expert advice is given from one professional to another; this may be via direct personal communication, but is often via a formal letter or referral note
Collaborative [3]	- practitioners, who normally practice independently from each other, share information concerning a particular patient who has been (is being) treated by each of them - these collaborations are ad-hoc in nature and usually occur informally on a case-by-case basis
Coordinated [3]	- a formalized administrative structure requires communication and the sharing of patient records among professionals who are members of a team intentionally gathered to provide treatment for a particular disease or to deliver a specific therapy - a case coordinator (or case manager) is responsible for ensuring that information is transferred to and from relevant practitioners and the patient
Multidisciplinary [3]	- is characterized by teams, managed by a leader (usually not a physician) that plans patient care - one or two individuals usually direct the services of a range of ancillary members who may or may not meet face-to-face - each individual team member continues to make their own decisions and recommendations which may be integrated by the team leader - is a highly articulated and formalized outgrowth of coordinated practice
Interdisciplinary [3]	- emerges from multidisciplinary practice when the practitioners that make up the team begin to make group (usually based on a consensus model) decisions about patient care facilitated by regular, face-to-face meetings.
Integrative [2]	- consists of an interdisciplinary, non-hierarchical blending of both conventional medicine and complementary and alternative health care that provides a seamless continuum of decision-making and patient-centred care and support - is based on a specific set of core values that include the goals of treating the whole person, assisting the innate healing properties of each person, and promoting health and wellness as well as the prevention of disease - employs an interdisciplinary team approach guided by consensus building, mutual respect, and a shared vision of health care that permits each practitioner and the patient to contribute their particular knowledge and skills within the context of a shared, synergistically charged plan of care

vide more interdisciplinary and integrative care [3]. The proposed conceptual framework could assist in adequately testing these hypotheses.

This conceptual framework also suggests implications for patients, health care practitioners, health care managers/policy makers and researchers. As identified earlier, patients' involvement in, and responsibility for, health care decisions increases as one moves to the right along the continuum. Not all patients want the same degree of participation in their health care – this appears to vary across patients and within the same patient across different health care issues and across time based on a variety of changing social and cultural factors [13-15]. Understanding how their role changes across the continuum of practice models may help patients to access care that meets their perceived needs.

An appreciation of the differences among health provider roles across different team-oriented practice models will help students and health care professionals to choose the practice settings that best suit their interpersonal styles and professional needs [3]. The degree of professional autonomy and independence vis à vis other professionals is identified as an important factor in both choosing a team-oriented practice model and in the socialization of new health care professional students [3,10]. Ivey et al. argue that different interpersonal and group process skills are required at the two ends of the continuum [3] and the participants of the workshop that provided the impetus for this paper also identified this as a key challenge to providing team-oriented healthcare.

Understanding the continuum concept also has implications for health care managers and policy makers. The decreasing importance of a hierarchical authority structure and the increasing importance of structures and processes that enhance communication and consensus-building as one moves across the continuum highlight the need for a variety of management structures and processes, and have implications for health care delivery costs and payments to service providers. Managers in different team-oriented practice models will require different knowledge and skill sets to provide the necessary leadership.

In addition, policy makers will need to consider a health care system that incorporates a number of different practice models for different types of care, rather than focusing on a single model (a "one size fits all" approach). This will necessitate an identification of which health needs are best met by each practice model and a comparison of health outcomes and costs associated with different practice models for similar patients. A health care system that incorporates different models for different types of care delivery needs to be flexible, especially if patients are allowed to choose the type of care they believe best suits their needs. This type of flexibility can be a major challenge to operationalize in large systems and organizations.

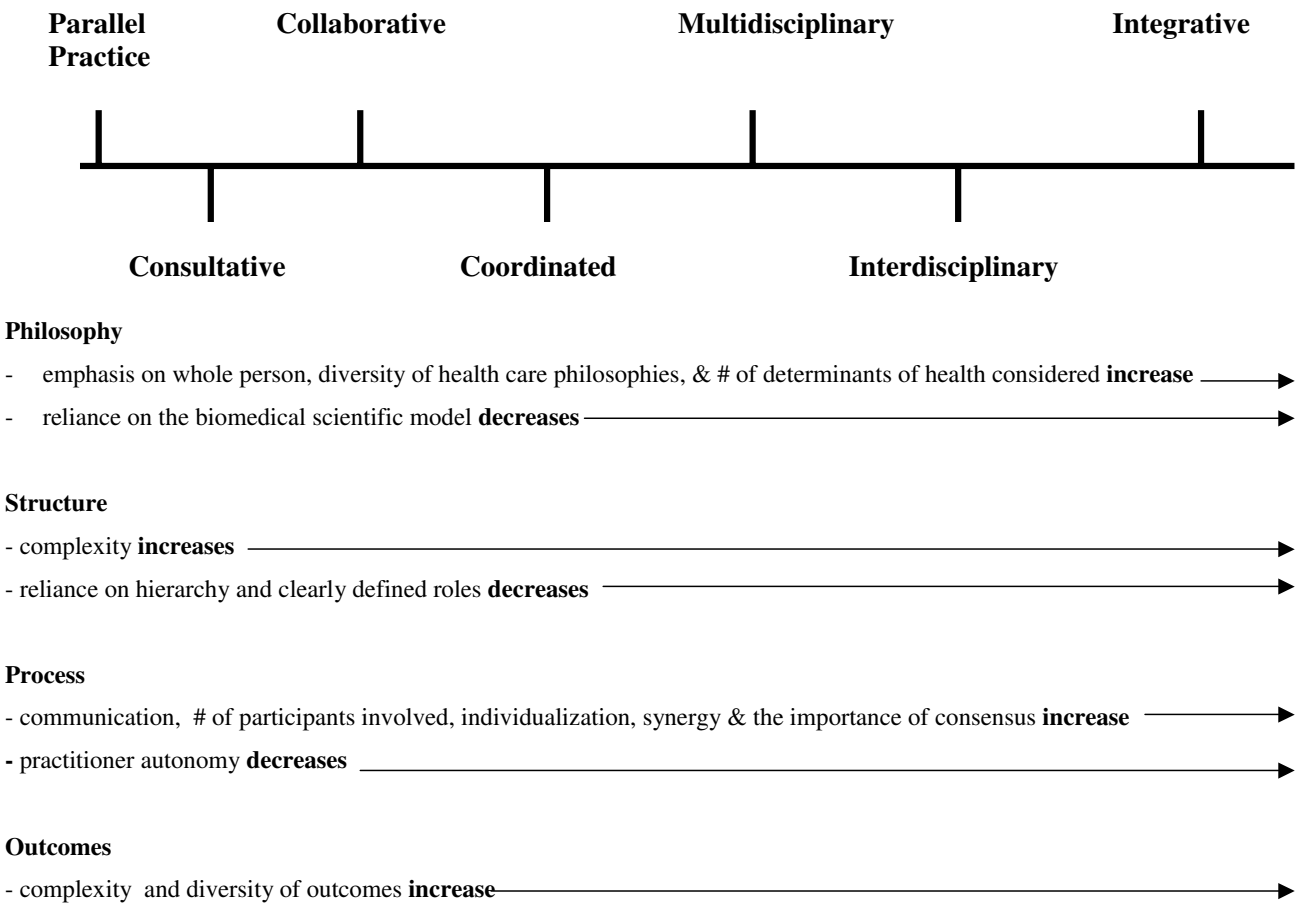

Figure 1
A continuum of team health care practice models

Summary
This paper develops a conceptual framework for describing, comparing and evaluating different forms of team-oriented health care practices that have evolved in Western health care systems. This conceptual framework may be useful in the generation of testable hypotheses, and provide a 'starting point' for researchers from a variety of different disciplines. The framework can provide the context to describe and explain research findings. It may also provide helpful guidance on how to explore 'individualized care' – which models of care are the best for which kinds of patients and problems – something that has been elusive to date.

Competing interests
None declared.

Author's contributions
H.B. helped conceive, design and drafted this manuscript. M.V., D.O., and B.F. helped conceive, design and provided critical edits to this manuscript.

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References

1. de Bruyn T: **Integrative Health Care:Defining and Operationalizing the Fundamental Elements. Workshop Report (November 17-18, 2002).** Toronto, available from H. Boon (heather.boon@utoronto.ca); 2003.
2. Boon H, Verhoef M, O'Hara D, Findlay B, Majid N: **Integrative health care: Arriving at a working definition.** *Alternative Therapies in Health and Medicine* in press.
3. Ivey SL, Brown KS, Teske Y, Silverman D: **A model for teaching about interdisciplinary practice in health care settings.** *Journal of Allied Health* 1988, **August:**189-195.
4. Meeker WC: **Framing Integration in the Chiropractic Community.** *Davenport* 2002, **8:**20.
5. Meeker WC: **"Integration" -- The New Buzzword.** [http://www.chiroweb.com/archives/19/07/11.html].
6. Leatt Peggy, Pink George H., Guerriere Michael: **Towards a Canadian Model of Integrated Healthcare.** *HealthcarePapers* 2000, **1:**13-35.
7. Shortell SM, Gillies RR, Anderson DA, Moran Erickson K, Mitchell JB: **Remaking Health Care in America. The Evolution of Organized Delivery Systems.** Second edition. San Francisco, Jossey-Bass; 2000.
8. Donabedian A: **Evaluating the quality of medical care.** *Millbank Memorial Fund Quarterly* 1966, **44:**166-206.
9. Bell IR, Caspi O, Schwartz GE, Grant KL, Gaudet TW, Rychener D, Maizes V, Weil A: **Integrative medicine and systemic outcomes research: issues in the emergence of a new model for primary health care.** *Arch Intern Med* 2002, **162:**133-140.
10. Ray MD: **Shared borders: Achieving the goals of interdisciplinary patient care.** *American Journal of Health System Pharmacy* 1998, **55:**1369-1374.
11. Harrison A, Pablo A, Verhoef M: **The consumer's role in co-ordination: Making sense of transitions in health care.** *Organizational Behaviour in Health Care - the Research Agenda* Edited by: Mark A and Dopson S. London, England, MacMillan Press Ltd; 1999:47-62.
12. Way D, Jones L, Busing N: **Implementation Strategies: "Collaboration in Primary Care -- Family Doctors & Nurse Practitioners Delivering Shared Care".** Toronto, The Ontario College of Family Physicians; 2000.
13. Stewart M, Roter D: **Communicating with Medical Patients.** *Interpersonal Communication 9* Newbury Park, CA, Sage Publications; 1989.
14. Deber Raisa: **Physicians in health care management: 7. The patient-physician partnership: changing roles and the desire for information.** *Canadian Medical Association Journal* 1994, **151:**171-176.
15. Deber Raisa B., Kraetschmer Nancy, Irvine Jane: **What role do patients wish to play in treatment decision making?** *Archives of Internal Medicine* 1996, **156:**1414-1420.

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