Why the Interdisciplinary Team Approach Works: Insights from Complexity Science

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Abstract

Background: Although an interdisciplinary approach is considered best practice for caring for patients at the end of life, or in need of palliative care (PC) services, there is growing tension between healthcare organizations' need to contain costs and the provision of this beneficial, yet resource-intensive service.

Objective: To support the interdisciplinary team (IDT) approach by recognizing organizations, teams, patients, and families as complex adaptive systems, illustrated by a qualitative study of the experiences, roles, and attributes of healthcare professionals (HCPs) who work with patients in need of PC services.

Design: In-depth, semi-structured interviews of PC health professionals were conducted, transcribed, and independently reviewed using grounded theory methodology and preliminary interpretations. A combined deductive and inductive iterative qualitative approach was used to identify recurring themes.

Setting/Subjects: The study was conducted in a physician-led, not-for-profit, multispecialty integrated health system serving three large, Western, rural states. A purposive sample of 10 HCPs who regularly provide PC services were interviewed.

Results: A positive team/patient experience was related to individual attributes, including self-awareness, spirit of inquiry, humility, and comfort with dying. IDT attributes included shared purpose, relational coordination, holistic thinking, trust, and respect for patient autonomy. Professional and personal motivations also contributed to a positive team/patient experience.

Conclusions: Interdisciplinary PC teams have the potential to significantly impact patient and team experiences when caring for seriously ill patients. Findings from this study support interventions that focus on relationship building and application of a complex systems theory approach to team development.

Background

AN INTERDISCIPLINARY TEAM (IDT) approach has been established as best practice in palliative care (PC) and has been correlated with positive clinical and patient-centered outcomes.[1–6] However, the IDT approach conflicts with the growing need for healthcare organizations to operate more efficiently in an environment of rapidly rising costs. Resources are being stretched because of reduced payer reimbursement, misaligned cost incentives, more insured patients, introduction of accountable care organizations, bundled payment initiatives, demand for new technologies, and an increasingly aging population. In response, organizations are carefully examining resources dedicated to services like PC, for which cost savings are difficult to quantify. Specifically, the long-supported IDT approach to PC is under scrutiny in exchange for a return to a more affordable, standard medical one-on-one provider/patient model.

This article seeks to support the IDT approach by recognizing organizations, teams, patients, and families as complex adaptive systems and understanding the accompanying implications. This connection to complexity science is illustrated by a qualitative study of the experiences, roles, and attributes of PC professionals that lead to positive PC experiences for both staff and patients/families. A recent article in this journal[7] portrays a positive PC experience from a patient

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perspective. This article adds provider perspectives to what constitutes an effective PC consultation.

This study was approved by the Billings Community IRB.

Theoretical Approach

Complexity science

Complexity science views organizations, healthcare teams, patients, and families as complex adaptive systems, offering new ways to contemplate patient care. Complexity science describes systems characterized by nonlinear interactive components, self-organization, emergent phenomena, and unpredictability, and is understood in contrast to simple, linear, and equilibrium-based systems.[8] Complexity focuses on patterns of interactions and relationships among system parts and provides new insights for working with the unpredictable nature of complex systems.[9] Thus, complexity science is well suited to help explain why PC IDTs lead to more successful interactions with patients/families than less complex approaches, given the complexity of PC, that is, multiple stakeholders, multifaceted issues, uncertain outcomes, differing opinions, and so on.[8,10]

Design

Setting and subjects

A purposive sample of PC professionals were interviewed from an integrated multispecialty health system serving three large, rural states. Exemplary PC physicians, nurse practitioners, nurses, social workers, and chaplains were identified through patient and family interviews conducted as part of a related study.[7]

Methods

Semi-structured, face-to-face interviews were conducted focusing on facilitators and barriers to a satisfactory PC experience, and related healthcare professional (HCP) attributes. Five qualitative investigators independently reviewed data using grounded theory methodology.[11–14] A template of ''a priori'' codes was developed and inter-rater reliability achieved ≤5% inter-coder discrepancy.

Using Atlas.ti v6.5 software, coding followed a three-part process: (1) open coding—breaking down, comparing, conceptualizing, categorizing data; (2) axial coding—reassembling data into groupings/families; and (3) selective coding—developing core themes and relating them to other identified themes.[11] During open coding, investigators clarified code definitions, combined, and added new codes. Axial coding was guided by code density and co-occurring codes. During axial and selective coding, themes were identified, compared, and contrasted across interviews, and repeatedly discussed, refined, and condensed. The iterative process continued until core themes emerged and saturation was reached. Preliminary findings were shared with participants to ensure findings and their interpretation accurately reflected participants' experiences.

Results

Subjects

Ten HCPs who provide PC services were interviewed, including three physicians, four nurses, one nurse practitioner, one chaplain, and one social worker. Clinical areas represented included intensive care, oncology, cardiology, internal medicine, nephrology, and perinatology.

Themes

Nine attributes emerged as contributors to a positive team/patient experience. Individual attributes included self-awareness, spirit of inquiry, humility, and comfort with dying. IDT attributes included shared purpose, relational coordination, holistic thinking, trust in the process, and respect for patient autonomy. Professional and personal motivations, personal fulfillment, peer encouragement, and a reinforcing team experience contributed to, and were reinforced by, a positive team/patient experience. Figure 1 depicts the conceptual model derived from this work.

Self-awareness and respect for patient autonomy. These quotes illustrate the attributes of self-awareness and respect for patient autonomy.
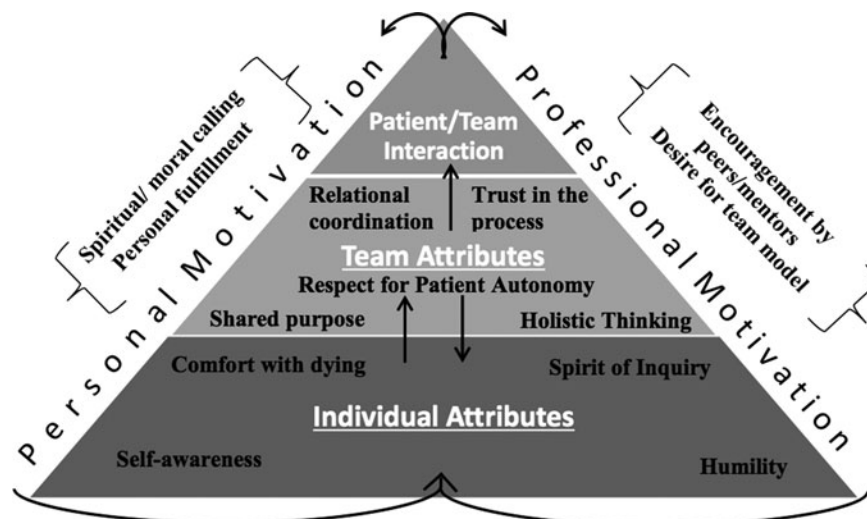
FIG. 1.　Relationship between identified attributes.

"We meet as a team every week and talk about these things as a team because we really want to try to set aside our own beliefs, moral beliefs and religious beliefs … and really try hard not to influence the decisions based on how we feel."—MD

"I think what helps is for the team not to go in with an agenda, other than to see what the patient, … what they want, what quality of life means to them and just be open to that."—Chaplain

Trust in the process and mutual respect. This quote demonstrates trust in the process and mutual respect. Through mutual respect and trust, the IDT is comfortable taking risks (in the face of uncertainty). The team's diversity results in an emergent "join[ing] together." The IDT handles the uncertainty because of the strong relationships, characterized by mutual respect and trust.

"People respect each other enough to take risks where you can disagree and then really join together as a result of that because you have eliminated the uncertainty or confusion."—RN

Humility and spirit of inquiry, shared purpose, holistic approach. These quotes exemplify humility, a spirit of inquiry, and shared purpose. The spirit of inquiry also suggests respect. Team diversity facilitates a positive team experience.

"I ask my nurses to help me see where I can't see, if there are things that you're seeing that we need to help this patient that I'm not identifying, talk to me so we can work on this together or we can bring other players in."—MD

"My patients are my teachers for goodness sake. Are they not? They are showing me how to do life. Some of them are showing me how to do death."—Nurse

"This old professor of medicine [said] 'as a physician it is your duty to prolong life but as a physician it is not your privilege to prolong death' and that sticks with me 'til today.'"—MD

PC and Complexity Science

PC cases are often characterized by a complex web of events, people, and interactions; the path forward is not always linear, and, therefore, not always apparent. Complex situations call for complex solutions. PC and the use of an IDT approach provide an excellent example in which a number of complex approaches are readily employed, including inviting diversity, increasing connections, reducing power differentials, distributing control, and embracing uncertainty. PC IDTs are *diverse*, comprising a variety of professional disciplines and, therefore, a multitude of perspectives. The team facilitates *increased connections* and interactions between HCPs and the patient and family and helps reduce *power differentials*. A PC IDT approach, by nature of inclusion of the patient, family, and clinical staff members, embodies a decentralized approach, leading to more positive experiences, satisfaction, and outcomes. The mutual respect observed between team members as well as between clinicians and patients supports this "bottom-up" approach.

The *nonlinear* path forward results in uncertainty, an inability to predict, a need to trust the process, and resulting emergence. Through nurtured mutual respect and trust, the IDT is comfortable taking risks in the face of uncertainty, and trusting the process. The "emergent" outcomes reported by the team, for example, ways to help a patient that had not occurred to the physician, after PC consultations, reinforce this trust and are also the result of the team's *diversity*. These mutually reinforcing components of the IDT influence the self-organizing process of PC, stimulating creativity and learning and increasing the likelihood of positive outcomes, when cases are complex.

Discussion

Interdisciplinary PC teams have the potential to significantly impact patient and team experiences during the care process for the seriously/terminally ill. Specific attributes are necessary for successful interactions satisfying patients, families, and team members. This study identified key individual (self-awareness, spirit of inquiry, humility, and comfort with dying) and team attributes (relational coordination, shared purpose, holistic thinking, trust in the process, and respect for patient autonomy), which through personal and professional motivation and support were mutually reinforcing to create a positive team experience.

The identified attributes are understood in the context of complexity science. Complexity science, suggesting organizations be viewed as complex adaptive systems, is a lens through which the IDT approach is supported. Characterized as complex adaptive systems, successful PC teams are *diverse*, comprising the disciplines of medicine, nursing, social work, and chaplaincy. *Control* is *distributed*, or shared, between team members. The approach is holistic, the team shares a purpose and events *do not occur linearly*. *Uncertainty* characterizes consultations; the result cannot be predicted. *Emergence* commonly occurs, with solutions arising that have not necessarily been considered in advance.

Implications for policy and practice

This work has significant implications for organization-level understanding of why IDTs are successful in the provision of PC services when cases are complex. A better understanding of PC IDTs in the context of organizations as complex adaptive systems may help healthcare executives not only accept the financial trade-off for deployment of teams for complex PC cases but in other disciplines as well, for example, primary care. Findings support interventions focusing on relationship building and application of a complex systems theory approach to team development as well as increased education and training for PC professionals.

Author Disclosure Statement

No competing financial interests exist.

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