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Theory Building as Integrated Reflection: Understanding Physician Reflection Through Human Communication Research, Medical Education, and Ethics

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Cover Page Footnote

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With the drawing of this Love and the voice of this Calling
We shall not cease from exploration
And the end of all our exploring
Will be to arrive where we started
And know the place for the first time.

T.S. Eliot, "The Little Gidding," the last of T.S. Eliot's *Four Quartets*.

INTRODUCTION

Theory provides explanatory framework for understanding. An expansive ethical way of understanding human behavior engages explanatory frameworks for what we know in a discipline with fundamental tools of other disciplines and approaches (O'Reilly-Jacob et al., 2022). Connecting across disciplines allows for exploring underlying assumptions that provide richness and learning and bring understanding of the trajectory of healthcare decisions and ethical implications.

Co-created theory engages what we currently understand with what we do not yet know and what continues to emerge through engagement with the subject matter, for example by connecting what we know from relationship science with health and illness in close relationships (Duggan, 2019). Grounded in a presupposition that a single explanatory framework cannot fully account for the expansive learning processes that occur during medical residency, we examine developing physicians' written reflections from three disciplinary lenses. Our goal in this article is to understand how the multi-dimensional nature of medical residency translates into assembling educational experiences and constructing meaning that cannot be fully explained through a single discipline. From that foundation, we move toward co-created theory in considering where communication theorizing meets medicine. Like previous research on medical competencies and learning, we assume that identifying, defining, and communicating medical skills and qualities are fundamentally important. Core competencies include technical knowledge as well as meta-competencies including academic, emotional, analytical, creative, and personal intelligences.

Previous research documents multi-dimensional learning outcomes for the competent and reflective practitioner who is able to do the "right thing" with the "right approach" and is the "right person" enacting professional behavior (Harden, 2002; Harden et al., 1999). Learning outcomes in medicine encourage a holistic and integrated approach to medical education and, at best, address the value in both vocational and academic perspectives and explanations (Harden, 2002; Harden et al., 1999). Similarly, rubrics for assessing outcomes include reflective writing in medical education and provide initial evidence for promoting reflective capacity as an essential aspect of self-regulated and lifelong learning (Sargeant et al., 2009).

In this article we expand the concept of vocational and academic perspectives and suggest that reflective competencies in medicine involve a synthesis across disciplines such that *integrated synthesis*

expands the ideological agendas of a single discipline. This argument is consistent with core assumptions of qualitative metasynthesis in documenting how qualitative health research exists alongside and informs evidence-based decisions and best practices in medicine (Thorne et al., 2004). We provide qualitative evidence for strengths and challenges of explanatory models of reflection from three disciplines and move toward an evidence-based integrated theoretical model of reflection that presumes ideological value of these three disciplines in understanding medical education.

To examine this approach, we use a directed, qualitative content analysis. Researchers from three different disciplines that independently inform medicine came together to identify how existing theory or prior research from each discipline would benefit from further description and integration across another discipline (Hsieh & Shannon, 2005). We examine family medicine residents' written reflections and share examples that illustrate the strengths and limitations of constructing meaning from these frameworks in medical practice: the first discipline is medical education; the second is centered on communication; and the third is focused on ethics, i.e., on what concerns the physicians' being and acting. Finally, we provide examples of reflections that include all three frameworks within the same written reflections to illustrate potential breadth and depth of the integrated synthesis.

First, we argue that medical education is a necessary but not sufficient explanatory framework for understanding physician development during medical residency (Shaughnessy et al., 2017). Although not an explicit part of medical training, understanding and cultivating the inner life of developing physicians can promote human flourishing (Vicini et al., 2017a; Vicini et al., 2017b). Although clinical experience is the foundational goal of medical training, transformation from medical student to competent clinician involves much more than acquiring biomedical information and treating patient symptoms. Expertise in medicine is broader than technical competence and involves developing attitudes, habits of thought, methods of reasoning, grounding in scientific inquiry, and a wide range of skills coincident with the profession (Shaughnessy et al., 1998). From an overabundance of information available to them, physicians learn to feel good about not knowing everything, instead learning the art of information mastery (Shaughnessy et al., 1994). Ideally, physicians learn to evaluate the relevance of information in terms of its direct bearing on patients' health, the information accuracy, and the ease of obtaining the information (Shaughnessy et al., 1994). At the same time, physicians seek clinical competence as an ability to transfer skills and knowledge to new situations (Stanley et al., 1993). Competence development in medicine usually occurs through supervised (coached) experiences via patient care, and later continues through unsupervised self-directed experiential learning.

Second, we suggest that attention to communication messages serves as cornerstone for physicians' recognizing dimensions of illness beyond biomedical markers. Ideally, developing physicians also attend to humanistic competencies for relationship-centered healthcare. To this end, physicians' attentiveness to the nuances of communication allows for acknowledging interactions with patients including broader dimensions than conversation about symptoms (Duggan, 2019). Physicians can learn to recognize communication as the process through which they respond empathetically and build rapport with patients, acknowledge patients' lives connected to illness, and integrate implicit, subtle messages that contextualize patients' illness experiences (Duggan et al., 2009; Duggan & Parrott, 2001). Communication as a competency requires acknowledging the broad and rich implications of nuances of messages connected to circumstances and context, as well as the interdependence of physician messages and patient disclosure (Duggan et al., 2015).

Third, we maintain that developing physicians need also attend to their own growth and flourishing, and that reflections indicate how physicians notice and attend to this broader developmental process (Shaughnessy et al., 2017). This ethical framework assumes that broader development of the competent clinician also attends to the anthropological implications of *being* physicians and *practicing* medicine (Vicini et al., 2017a). In other words, the quality and depth of the medical interaction can be seen as inseparable from attention to the human stature, virtues, and relational qualities that

characterize both the physician and the medical interaction. To this end, physicians might also identify, acknowledge, and express their strengths, achievements, successes, vulnerabilities, limitations, errors, and areas of and for growth (Vicini et al., 2017b). Attending to this interior aspect of physician development connects healthcare practice with human growth, development, and flourishing.

REFLECTION ABOUT EXPERIENCE-BASED LEARNING

We examine physicians' written reflections about their experiences during residency. These reflections allow for seeing what events draw physicians' attention, how physicians contemplate the events, and how physicians' thoughts about actions connected to making meaning about the events. We presuppose that explanations of learning processes during medical residency would benefit from interdisciplinary integration including medical education, communication, and personal growth and flourishing. Experience-based learning is associated with developing expertise in medicine (Schön, 1987), but experience gained through the medical apprenticeship system does not lead directly to the development of expert performance and does not necessarily attend to the breadth of required competencies.

Learning requires deliberate thought mechanisms that allow for control and an ability to monitor performance in representative situations (Ericsson, 2004). The process of deliberate monitoring and adjusting cognitive performance results in the development of mental structures, or illness scripts, which become heuristic for clinical expertise used by competent clinicians (Gigerenzer et al., 2000; Schmidt et al., 1990). Written reflections provide a form for deliberate monitoring and for constructing meaning of learning experiences.

Reflection involves conscious and deliberate mental energy to explore one's *understanding* of a problem rather than simply solving the problem (Eva & Regehr, 2008). Reflection involves developing self-knowledge and improving self-awareness beyond just thinking about an event. Thus, reflective practice involves metacognition to evaluate an experience such that new knowledge gained from the experience can be integrated into existing knowledge structures (Boud et al., 1985; Sandars, 2009). Reflective exercises have been integrated into education since the 1970s (Korthagen, 1993), and included conceptually in health professionals' pre-clinical education and clinical development (Bethune & Brown, 2007; Boenink et al., 2004; Sargeant et al., 2009; Williams et al., 2002; Zink et al., 2009).

Portfolios in medical education document reflective ability (Driessen et al., 2007) and competence in mastering a topic (Buckley et al., 2009). Teaching family medicine residents reflective process and integrating reflection into clinical training may lead to better and more thorough illness script development (Schmidt & Rikers, 2007), and may encourage adaptable, life-long learning professionals. In Europe, a review of twenty-one studies of reflection formed the basis of the Association of Medical Education guide to using reflection in medical education, based on four studies reporting positive outcomes, including diagnostic thinking skills, professional identity, humanism scores, and final examination results (Sandars, 2009).

Conceptually, reflection encourages deeper learning. However, empirical evidence for reflection as a strength in medical education is relatively thin and integrating formal reflective work into the educational process remains a relatively new medical education concept. Research documents types of reflective portfolios link formal reflection to competence, self-assessment, and self-understanding (Buckley et al., 2009; Mann et al., 2009). Physicians' reflections focus on scientific reasoning and research evidence about providing appropriate patient care, maintaining professional relationships, and self-care (Mann et al., 2009). Reflections can explore, appraise, and make meaning of experiences (Wear et al., 2012).

The content of developing physicians' reflections offers a window into the development of medical expertise, as well as learning broader competencies. Illustrative reflective entries highlight the strengths and limitations of competencies in medicine, communication, and ethics. Integrated

reflections show the inter-relationship among the three explanatory frameworks in comprehensive education of the developing physician and integrated healthcare.

Thus, we pose the following questions:

RQ1: How do physicians' reflections illustrate strengths and limitations in learning medicine, communication, and physicians' growth and flourishing?

RQ2: How do examples and implications of integrated physician reflections across disciplines illustrate more comprehensive theoretical depth of physicians' professional development?

METHODS

Participants and Procedures

Family medicine residents (33 residents) of the (INFORMATION DELETED FOR ANONYMITY) completed reflective exercises each week for one year (N=756 reflective entries) as part of the residency curriculum. The program director provided fifteen-minute time periods for reflection based on positive experiences with similar exercises in Denmark (Kjaer, 2008). Residents entered a reflective exercise of any length into the computer portfolio each day the reflection was assigned; reflective exercises were not graded; specific goals for reflection were not imposed. Residents could enter additional entries as desired. All reflective entries were kept confidential unless the resident decided to mark a post public, in which case it could be read by the resident's advisor, other residents, and faculty. Residents were instructed not to include patient identifiers or other protected information.

Researchers with particular individual expertise in medical education, communication, and ethics read through the entire set of open-ended reflective entries (N=756 entries) and identified examples that illustrate the strengths and limitations of meaning-making from each of the three disciplinary lenses. The researchers also individually identified examples that illustrate the integration across disciplines and explored how integration across their respective disciplines provides more comprehensive richness and depth.

Confidentiality

IRB approval was obtained from the medical school and from the first and second authors' university before beginning any analysis. All entries were de-identified except the year of resident training. The password-protected research database could not be linked to individual residents. Data were aggregated to disguise identification with a specific residency or medical resident. The second author, who holds an adjunct appointment at Tufts University School of Medicine but does not have any role in evaluating the family medicine residents, scanned all entries to be sure identifying information was removed before analysis.

Analysis

The three authors and two research assistants conducted the analysis. The interdisciplinary research team read through the entire data set and identified through a priori consensus process the three disciplinary frameworks to be qualitatively examined, including medical education, communication, and ethics. Within reflections related to each discipline, we described strengths and limitations of understanding through theoretical breadth of each of our disciplines. We identified examples to illustrate each discipline as well integrated within individual reflections to allow for claims and traditions of our own disciplines to inform analysis but also to allow for variations in approach, angle of vision, and interpretation between authors based on disciplinary distinctions rather than methodological flaws (Thorne et al., 2004).

The research team members read through the entire data set each independently and then as a group, identifying themes as well as latent and manifest content areas connected to each of our disciplines that emerged from the reflections (Graneheim & Lundman, 2004). From the point of view of

each discipline, emerging themes, with their strengths and challenges, were identified with the reflective entry as the unit of analysis. Similar to grounded theory as a philosophical approach and research method, the qualitative content analysis allowed explanatory framework to be developed through systematic gathering and analysis of data such that explanations are grounded in the data (Kennedy & Lingard, 2006). The method is in contradistinction to the hypothetico-deductive model usually used in science, in which a predetermined theory or hypothesis is developed and then tested using any of a variety of study designs. We used an iterative process of systematically and inductively identifying strengths and challenges, and describing competencies within the reflections (Graneheim & Lundman, 2004). Each author read and categorized all of the occurrences of each theme independently and processed identified themes together to ensure ongoing consensus. As an additional guard against arbitrary decision making, a research assistant re-analyzed the data independently after developing categories to minimize force-fitting data. The resulting descriptions move toward an evidence-based theoretical explanation of reflection and learning across disciplines.

Results

Results provide evidence for three thematic explanations: 1) metacognition and narrative as processes of moving from dependent to self-directed learning about medicine; 2) self-recognition of communication as a primary manifestation of partnership-building, relational processes, and shared decision-making; and 3) self-recognition of underlying formation processes of the physician manifest as recognizing an inner growth and integration of human flourishing in longings, desires, struggles, doubts, joys, and gratitude.

We suggest that the integration of these three thematic explanations allows for comprehensive understanding of reflection as a cornerstone in the broader formation of the physician. Examples illustrate the three thematic explanations in isolation and provide evidence for an integrated understanding of a fuller human experience by considering the three thematic explanations as co-occurring, reciprocal processes. Within each lens, we describe what draws the attention of the developing physician, the meaning behind what is observed, and indications of how the physician might respond to questions connected to the reflection.

Medical Education Lens

Reflections including medical education illustrate a spectrum from simply reporting back details of improving interactions with patients as a learning outcome, to metacognition about a conscious interest of the self as connected to the learning process.

Simple reporting was observed in reflections about learning to better recognize symptoms and taking initiative for self-directed learning. More deliberate metacognition was observed in residents demonstrating a process of questioning their active approach to managing knowledge or learning. This explanation is consistent with a shift from understanding biomedical explanation to working from a relationship-centered model that places moral value on attention to the whole person (Beach et al., 2006). Thus, reflection about medicine could address biopsychosocial aspects of the patient, including roles and relationships connected to the illness experience (Duggan & Parrott, 2001; Duggan et al., 2015), and may even include empathy with the life world of the patient. However, this broader biopsychosocial explanation fails to address the trajectory of the developing physician's own life. At worst, this medical education lens can address on the surface the breadth of patients' lives but still misses the essence of human flourishing and of nuances of messages.

Other language to articulate this medical education spectrum comes from Strawson, a philosopher, who suggests that humans conceive of themselves in one of two modes of self-experience. A learner with a "diachronic" (existing over time) self-experience, naturally figures oneself, considered as a self or person as opposed to a whole human being, as something that was there in the (more or less

distant) past and will be there in the (more or less distant) future (Strawson, 2004; Strawson, 2009). In contrast, other learners may have a non-diachronic or “episodic” self-experience in which they are aware of their past, but do not see their current “self” as having been there in the past. They have an image of their existence as a *series* of selves, with the current self related to, but not the same as, one’s previous self (or selves) (Gritz, 2008). Learners who experience themselves in a non-diachronic style may not be predisposed to consciously reflecting on their past experiences as connected to experiential learning (Strawson, 2004; Strawson, 2009). Examples in Table 1 illustrate the two ends of the medical education spectrum.

Communication Lens

Reflections including communication illustrate physicians noticing patients’ stated and tacit messages. Reflections about communication illustrate a spectrum from noticing subtleties of patient messages to recognizing the interdependence between physician and patient messages and disclosure. Recognizing tacit and more subtle patient messages shows how patient behavior indicates their lives coping with illness and allows for better understanding and responding to patient experiences and emotional responses to illness. More comprehensive analysis of the reciprocal process of messages was observed in residents identifying collaborative interplay between their behavior and patient disclosure. This explanation is consistent with research documenting the role of messages in improving health outcomes (Duggan & Thompson, 2011) and meaning making about communication functions as a manifestation of disturbance and disruption that shapes learning (Duggan et al., 2015). Thus, physicians’ reflections about below-surface communication can clarify and confirm subtle meanings of messages within context cues that offer delicate balance of understanding and responsiveness. Although noticing the nuance of messages allows for richer relationship-building, the communication lens alone misses the necessary medical component and also fails to address the trajectory of the physician’s own growth and potential for flourishing. At worst, this communication lens addresses the messages per se without the essence of human connection with illness experience. Examples in Table 2 illustrate the primary components of the communication spectrum.

Ethical Lens

The whole person is at the center of the World Health Organization’s (WHO) definition of health. For the WHO, health is a state of complete physical, mental, and social well-being, not merely the absence of disease (World Health Organization, 1998). In its holistic understanding of health, this comprehensive definition encompasses multiple dimensions: personal relationships, transcendence, a code to live by, and specific religious beliefs. *Personal relationships* includes personal attitudes expressed in relational contexts (e.g., kindness to others, selfishness, acceptance of others, and forgiveness), as well as one’s relational network with both the richness and complexity that these interactions have with one’s health. *Transcendence* includes a connectedness to a transcendent being, a posture of awe, issues about the meaning of life, wholeness/integration, ways of accepting and addressing failures and struggles, peace/serenity/harmony, inner strength, detachment, and hope/optimism. *Code to live by* includes the ability to commit and the freedom to embody and practice one’s beliefs.

The WHO definition presupposes a complex understanding of the person, an understanding that requires multiple lenses or angles of understanding. Similarly, the ethical lens demands attention to what characterizes one’s behavior and one’s whole inner life. One’s inner life is characterized by focusing on anthropological and ethical dimensions more than a narrowly understood spiritual life or religious affiliation. Hence, one’s inner life refers to one’s inspiration, reverence, awe, search for meaning and purpose, even in people who not believe in God (Murray & Zentner, 1985), who are not members of an established religion or who do not practice their faith in any religious context. Moreover, previous research argues that spiritual care, and even psychiatry, is necessarily related to the aspects of care that

attend to deep inner structures of meaning, value, and purpose (Culliford, 2002). With regard to physicians, Culliford suggests that spiritual skills are coincident with professional attitudes and training including: being able to create a still, peaceful state of mind; ability to stay mentally focused in the present; developing above-average levels of empathy, discernment, and courage; sustaining an attitude of hope amidst distress; self-reflective honesty, especially about areas of ignorance; having an above-average level of being able to give without feeling drained; and being able to grieve appropriately and let go (Culliford, 2002).

In the physicians' entries that were examined and analyzed, reflections including inner life address inner growth and human flourishing as manifest in longings, desires, struggles, doubts, joys, and gratitude. These reflections acknowledge strength or connection beyond the self by indicating an ethical awareness and commitment. Moreover, reflections about one's inner life potentially illustrate the anthropological attentiveness to personal development as a process that exists beyond the everyday experiences. Physicians who wrote these reflections also seemed to notice that authenticity of experience and living life differently in response to understanding their development involved more than a series of patient encounters. Hence, while focusing on their own inner lives, they expressed their ethical commitment and engagement. These points of acknowledging strengths and/or connection beyond the self were observed without prompts and indicated both a posture of gratitude and broader ethical concerns than explaining the interaction can capture. At worst, the focus on one's inner life could imply a possible turning back to a self-centered understanding of one's personal experience and professional practice or it could highlight limitations in one's inner growth that, potentially, could be addressed further.

The ethics literature reflects on one's identity and agency by pointing at the profound interactions between being aware, exploring, and questioning one's self and, at the same time, examining one's judgments and actions. In such a way, any self-reflection comprises anthropological and ethical dimensions. Foundational questions, that are anthropologically centered, aim at clarifying "Who are we? Who ought we to become? How are we to get there" (Keenan, 2005; Kotva, 1996; MacIntyre, 1984). These anthropological questions, however, depend on one's behavior, and they contribute to shape current and future actions. Consequently, one's self-reflective and critically constructive disposition empowers the self, and contributes to personal flourishing, that is, to full realization of one's potentialities and capabilities. As Fredrickson and Losada indicated, "To *flourish* means to live within an optimal range of human functioning, one that connotes goodness, generativity, growth, and resilience" (Fredrickson & Losada, 2005).

Moreover, because human beings are relational, and are situated in specific contexts and social networks, personal empowerment and flourishing are also social, and eventually they will contribute to empowerment and flourishing of the social environments in which the self is immersed and where interacts. At the same time, as in the case of any human dynamism, empowerment and flourishing take place in time, with possible resistance and setbacks that characterize one's growth and development. Examples in Table 3 illustrate the inner life spectrum as reaching out in gratitude, and on the contrary, as using the language of inspiration to turn back to the self.

Integrated Lenses of Reflective Practice

In this section we indicate examples of integrated lenses of reflections that show light to the richness of interdisciplinary perspectives in qualitative health research. These reflections include diachronic perspectives on medical education, observations of communication as noticing subtleties of messages, and perspectives on inner growth. These reflections address the strengths of each of the individual lenses but also show the interconnection among the three explanatory frameworks for physician development during medical residency.

Integrated examples allow for recognizing the strengths of assumptions within disciplines as complimentary and mutually beneficial in capturing the broader contexts that expand conventional approaches to qualitative content analysis. To this end, integrated examples expand the overarching claims that are based on methods and theoretical assumptions of a particular discipline. Integrated examples offer glimpses into contextual features of engaged learning as overlapping and interlocking activities. Examples in Table 4 illustrate the integration of lenses in reflections indicative of overlapping understanding across all three frameworks.

Discussion

The interdisciplinary reflection and analysis that we presented extends linear frameworks of medical education, allowing for expansion beyond replication and application of medical education innovations. In these reflective exercises and analysis, we move beyond the performativity of the workplace of medical residency. To that end, we first bridge the concept of the diachronic narrative with learning competencies of medicine to illustrate how written reflections demonstrate an open, critical, and interpretive potential in integrating the past and present understanding of self into medical education (Shaughnessy et al., 2017).

Second, we bridge learning competencies of communication skills with fundamental assumptions of communication as an interdependent process shaped by both physician and patient. The learning competencies of communication are consistent with theory-based communication skills training and evidence-based perspectives on communication within the medical education curriculum (Street & De Haes, 2013), but the reflections about communication allow for better understanding physician scrutiny and appraisal of their messages.

Third, we bridge reflection into the domain of the inner life to examine the development of *being* physicians as a complimentary process to mastering medical skills. Documenting physician reflections about their growth as a larger process than their activities, and as connected to their longings and broader human flourishing, expands the context of how researchers write about medical education and posits the development of the person as an inherently ethical cornerstone of professional growth, without which physicians are likely to replicate and revalidate performance processes without connecting to broader meaning of the self related to their work. In other words, “what is morally compelling and urgent is the rediscovery of what it means to be human, and by promoting that in a humanly and socially centered healthcare practice that contributes to personal and social flourishing” (Vicini & Brazal, 2015).

Examining reflections through the lenses of complimentary disciplines also documents the richness of moving beyond technical or instrumental views of reflection in which educators provide a checklist or other instrumental means for goals of reflection. Our approach does not discredit the idea of reflection as instructional or the importance of themes and ideas of reflection (Mann et al., 2009; Sargeant et al., 2009). Consistent with previous theoretical, qualitative, and empirical literature, we see these documented processes of reflection as helpful pedagogic processes associated with and encouraging reflection on one’s particularity (Bradbury et al., 2010). Instead, we provide evidence of integrated interdisciplinary explanation as a way to increase and ripen conditions for reflection as well as addressing the whole self as potentially connected to reflection. This broader conceptualization is consistent with the assumption that some practitioners have a “transpersonal orientation” such that they tend to be inner-directed and focus on self-development and on the relationship of internal to external (Wellington & Austin, 1996). Hunt documents nourishment, inspiration, energy, and a sense of integration between the self and the professional boundary in moving beyond conventional frameworks for reflective practice and in allowing for “reaching spirituality” in access to deeper meaning to professional context (Hunt, 2010). Moreover, Hunt describes the process of finding congruence between our own understanding of spirituality as interconnected with community and encourages transpersonal

auto/biographical and narrative aspects of storytelling and reflection (Hunt, 2010). Hence, Hunt's use of the term "spirituality" is consistent with our attention to one's inner life, with its personal and social anthropological and ethical dimensions.

Overall, this manuscript also illustrates the strengths and challenges of interdisciplinary analysis and understanding. Examples provide evidence for moving beyond a simplistic understanding of reflection and reflective practice as a "good thing," without some kind of critical agenda, without some kind of attention to the social analysis of knowledge connected to power (Bradbury et al., 2010). Our framing challenges the dogma of reflective practice and allows for a more complex conceptualization of work and identity in medicine. Similarly, our framing addresses insights and experiences across three disciplines such that we also can connect the integration across the disciplines to relationship-centered healthcare.

Integration and Relationship-Centered Care

Development of the physician as a whole person involves attention to attributes broader than clinical competence, as understood within the model of relationship-centered healthcare. Relationship-centered care is a way of viewing the clinician-patient encounter that stresses partnership, attention to relational processes, shared decision-making, and physician self-awareness (Suchman, 2006). The underpinnings of relationship-centered care focus on the moment-to-moment relational processes, the value of difference and diversity, and the importance of authentic and responsive participation (Suchman, 2006). More broadly, relationship-centered care recognizes that the nature and quality of relationships are central to diagnosis and healthcare delivery. The principles of relationship-centered care include recognizing the personhood of the participants, acknowledging that affects and emotions are important components of these relationships, considering healthcare relationships within the context of reciprocal influence, and placing moral value on the formation and maintenance of genuine relationships in healthcare (Beach et al., 2006).

Care, trust, and openness serve as the foundations for relationship-centered care. Relationship-centered care promotes the physician's ability to play a role in relational dynamics, including such things as finding common ground (Frankel et al., 2011). As the concepts of relationship-centered care have taken hold in medical education and practice, concrete examples and practices associated with developing relationship-centered care continue to unfold. A recent proposal from some of the leaders in the relationship-centered care network proposes mindful practice, integration of reflection in the formation practice from novice to expert, and communication skills training as core foundations for teaching relationship-centered care (Frankel et al., 2011). Research suggests that physicians' professional development of self-awareness is crucial to responding empathetically to patients and to fully recognizing what patients bring to the interaction (Duggan et al., 2009; Krasner et al., 2009). Patient/relationship-centered communication behaviors within the provider-patient interaction are associated with better outcomes including satisfaction, adherence, quality of life/health outcomes, and lower medical malpractice (Duggan & Thompson, 2011).

Considering the physician as one who comes to the interaction as a competent professional extends the frame of reference beyond medicine. Relationship attributes include caring and compassion, insight, openness, respect for patient autonomy and dignity, and recognizing the life world of the patient. Professional attributes encompass respect for autonomy as well as responsibility to the medical profession and to society. Personal attributes include trustworthiness and ethical awareness.

Implications for Ethics in Healthcare

This project discusses a medical school innovation for encouraging reflection and integrates qualitative analysis of existing assumptions of three disciplines and mutually beneficial integration across the disciplines. The project extends the literature in medical education and qualitative analysis by examining

explicit and tacit points of reflection and by explicating the evident, the intuitive, and even the unconscious aspects of reflective exercises.

This approach allows for unpacking the multifaceted aspects of reflection, and bridges reflective theory and medical education with human communication research foundations and assumptions of ethical development. Identified examples allow for medical educators, communication scholars, ethicists, and practitioners to recognize the concept and the value of reflection and to develop competency to use it purposely in theory development and in professional life. To that end, this project builds on understanding of interpersonal communication processes and addresses challenges of interdisciplinary research and translational work (Duggan, 2006; Duggan, 2019; Duggan et al., 2015; Vicini et al., 2017a; Vicini et al., 2017b).

This article applies a practice-derived educational tool that helps learners better understand reflection, and through experience, more readily grasp its concepts and its strengths in qualitative inquiry. Examples illustrate the multiple facets of reflection and pose questions for how theory built on reflection integrated with multi-disciplinary lenses can more comprehensively explain how and why replaying situations or events in our minds can better trigger people to inquire and find new information to resolve tensions observed in reflections about communication behavior.

The representative sample of medical residents completing the reflective entries, comprehensive analysis, inclusion of reflective entries across an entire academic year, and shared analysis of medical educators, suggests that health communication leaders should yield high validity in identified communication processes. Reflective entries promote critical self-reflection and show where communication questions or challenges previous knowledge (Wear et al., 2012).

The written reflections show that residents use reflection in myriad ways when given the flexibility for open-ended thought. The recurrence of these themes despite the open-endedness of the exercise shows that experiences of medical residency, while in some ways different for each doctor, will necessarily share some common themes. For every physician, residency is a time of rapid learning, mistakes, and new experiences. With the challenges coming so fast, allotting time for reflection on the learning process can benefit them in the long run. Examples show that reflection can help residents understand patient behavior, communicate better, comprehend the learning process, and recognize their growth as a doctor and potential for future improvement.

More broadly, this article provides evidence for qualitative interpretation through multiple angles of vision that shift beyond paradigmatic lenses and expand the range of theoretical variables (Duggan, 2019; Thorne et al., 2004). Qualitative understanding of health research recognizes co-appreciation beyond parallel analysis, instead of showing shifts in interpretation that allow for recognizing and deconstructing multiplicity in claims (Duggan, 2019). Interdisciplinary integration moves outside the parallel examination of multiple disciplinary lenses and apparently independent explanations. Instead, we bring into dialogue the engagement of three disciplines in qualitative analysis that allows reflection to manifest as a tool for learning and demonstrating interdisciplinarity. Theory building via integrated interdisciplinary analysis in the context of physician reflection documents a form and context for richer understanding of healthcare ethics research.

Table 1: Medical Education Lens of Understanding

Simple reporting/Episodic medical education

	Example	Learning outcome
Simple reporting of a learning episode	So I had two new patients today. What I definitely learned from my first patient—is that the way you handle a completely new patient is: 1. Welcome them to the clinic 2. Tell them that while you want to deal with their immediate concerns, you also want to get some	Process of taking medical history Setting priorities for care

	<p>information about them to be able to get to know them better 3. Get a list of the things they want to discuss today and then prioritize that list—try to deal with one to three problems each visit. Let them know you will come back to those few items in a minute and that they can make another apt to come to see you in a few weeks/months to deal with their other problems 4. Start filling out electronic records 5. Come back to their chief complaints and get the pertinent history from there. Definitely it is important to have the patient sitting next to you (if they have family with them then the family can sit in another chair or on the table).</p>	<p>Sharing clarity in what will happen in interaction</p> <p>Including patient means more than asking questions (i.e., have patient sit next to you)</p>
Simple reporting of a learning to connect patient encounter with pre- and post-visit actions	<p>First there is the prep work—printing out the snapshot is a good idea before the visit—and making sure that I keep the problem lists of what I want to address with patients. Second is the patient visit—when I should be entering as much information as possible into the records during the actual encounter so that I organize my problems and keep from falling behind. Third, is when I look things up and add them to the notes. And finally there is the after-visit where I make sure things are up to date. I finish my note making sure I list things that I want to discuss with them next time—BOLD these.</p>	<p>Medical history as broader context than interaction</p> <p>Organized patient care</p> <p>Efficient processes before and after patient visit</p>

Deliberate metacognition/Diachronic medical education

	Example	Learning outcome
Patient encounter connected to self-analysis	<p>When I realized I would not be able to resolve all of her concerns, I said we only have time to really cover a few of these concerns at this visit, and asked the patient what was most important. It also seemed that what she was most concerned about was really the last thing she mentioned—which was that she had a pain that she was worried might have been cancer. She had not been back for follow up for three years even though the doctors had recommended immediate hysterectomy. She said she wanted a 2nd opinion—but she didn't come back until just now and she's clearly worried about it. By the time we talked I could tell that she really wanted to come back sooner than the month I suggested and that she was really concerned about the possibility of cancer.</p> <p>I wanted to be able to assuage her worries. So I will reschedule her to see me sooner. And I can also make sure I touch base with also, so she doesn't feel like she has to worry about the cancer thing on her own.</p>	<p>Rapport as empathetic response to physician narrative</p> <p>Next steps of care involve understanding physician as both efficient and warm</p> <p>Understanding of self connected to patient life beyond symptoms</p>
Empathy and rapport-building	<p>Today I felt a bit more empathy and understanding. It was the first time I really connected to a patient. She had multiple complaints that she wanted to deal with—and I</p>	<p>Priorities for patient are influenced by physician response</p>

connected to patient encounter	really relate to this—I am the same way. And I tried to get an agenda for the visit from the very beginning, but I really feel like I got very time conscious and sort of stopped asking about more concerns once she had mentioned three big ones. I think I should have pushed her a little further.	Recognizing strengths and limitations of behavior in interaction
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Table 2: Patients' Explicit and Tacit Communication Messages

	Example	Learning outcome
Patient explicit messages	I approached this interaction by intentionally taking the perspective of the patient. I used positive motivation to help the patient set goals for her weight loss, both diet and exercise. I took deep breaths, and I expressed confidence. She said she was less nervous about making the changes than she expected, and that she would be able to talk with her family to ask for their support in making the changes.	Promoting behavior change can involve motivating patients to express the goal Patients' confidence is indicated in their messages, both in tone and content
Patient tacit messages	A patient with back pain was booked last minute. I quickly reviewed the last few notes, which included concerns about drug-seeking behaviors. She also hinted about social stressors, and said she been scheduled for psychiatry. She talked a lot, tearful and desperate at times, other time complimentary, other times joking around. I was trying to understand the bigger overall picture with this woman, as well as the details of all her different ailments, in a very short amount of time. I also smelled cigarette smoke on her, and she was complaining of pitting edema and swelling in her legs bilaterally. I wanted her to quit smoking. I felt torn, and a little defeated. Defeated because I knew that I would give this oxycodone because that is what she had been given previously. Defeated because I didn't want to do that, I wanted to talk to her longer, understand the history, understand more what her stressors were, and discourage the dependence. There is not enough I can say. I felt torn because I feel for her, and worried she has to manipulate and lie in order to feed her addiction. Torn because I do not trust her. Is that what it means to be a physician now?	Written messages cannot provide comprehensive understanding of life world Expressed emotions indicate bigger picture Explicit patient requests need to be balanced with broader context Tacit messages are observed through smell and through disclosures beyond biomedical responses Physician noticing own responses allows for processing subjective interaction components

Interdependence between physician and patient messages

	Example	Learning outcome
Interdependence between physician and	She wanted me to know that for her and the family my simple act of being compassionate enough to recognize the need of the family, and then taking the time to meet it, meant everything to them and for	Compassionate messages can be subtle

patient messages	this she wanted to thank me. Sometimes we do things because we learn that they are the best or right thing to do. And sometimes the results are visible—a drop in the height of a patient’s shoulders when we relieve their anxiety with a few words, a touch, or a look, for example. Sometimes we are given not only the gift of thanks, but the gift of knowing that we have, in some small way, done what we became physicians to do—relieve suffering.	Nonverbal aspects of interaction may provide richer set of clues than what is explicitly stated Physician responsiveness and understanding might best be observed in patient subtle responses
Interdependence between disclosure and responsiveness	My patient said he was afraid that he won’t leave the hospital this time. I felt stunned and defensive and masked my response with light jokes. Take it one day at a time. But I froze. It was hard to look him in the face and say it would be okay. I don’t know if I will be able to handle this all. I felt helpless. I didn’t say anything right. All I did was keep asking him to talk more about his feelings.	Physician messages can inhibit patient encounters Physician emotional responses are interconnected with reciprocal exchange of messages

Table 3: Inner Life/Ethics/Human flourishing

Spiritual life as breadth of human flourishing

	Example	Learning outcome
Gratitude in growth beyond self	I stand in gratitude for guidance and love, for the ability to serve. To be a woman for dignity honor and grace. I seek willingness to walk through every challenge that I am given, with dignity honor and grace. Challenges are like labor—either go through it in fear, go through it and numb it, or walk and breath through it. I recognize growth moments. I seek humor in giving love and receiving love. I seek openness and kindness and to remove self-pity, self-seeking and dishonesty from my motives. I seek kindness and gratitude in nature, art, love, family support, this program, exuberant light. I seek to move forward free from self-seeking, self-pity and dishonest motives.	Individual development is inherently connected to broader sense of learning Gratitude as primary posture Attributions for experiences as opportunities
Longing in slowing down and spaciousness	Thank you for the ability to grow and I long for the ability to sit with the unease. I hope for kindness and patience and quiet. I am tired, and all is well. I am grateful for the ability to grow. I see to slow down, to take the signs of the universe. To be kind to myself and to others. To breath. To believe. To realize I am not the one in charge here. Truly grateful.	Spaciousness in unease and unanswered questions Longing for understanding beyond self

Language of flourishing but turning back to self

	Example	Learning outcome
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<p>Growth as self-motivated</p>	<p>The elegant stitching on my breastplate shows I am a real doctor. The shiny new clogs I bought as a graduation present squeak confidently in my stride. My big, shiny pager beeps in the tiny pocket of my white coat designed specifically for it. That’s right, the coat designers must have known I’d be too badass to wear it clipped nerdily to my scrubs. Teams of white coats flock around a chart, and I’m not the caboose anymore! I walk a little faster, reveling in the deferential distance between us. I’m the one asking questions, making other nervous. They are afraid of disappointing me. I am grateful for my role as teacher, as role model, and as mentor.</p>	<p>Language indicative and attentive to cues of competence, but turns to power clues</p> <p>Language indicative of team integration, but turns to self-focused bias</p> <p>Fears and vulnerabilities shift to dominance over others</p>
<p>Inspiration and acceptance as luck for fortunes</p>	<p>Something I am grateful for: the opportunity to have this amazing birthday party with a gorgeous location and successful people all around me. I am so lucky! Sometimes spending so much and being so lavish makes me feel nervous, and have bad dreams about what will go wrong. I think I should accept that I am lucky and have this opportunity and enjoy and be thankful for the fortunes.</p>	<p>Language indicative of gratitude and turn to self and luck</p> <p>Message of deserved opportunities over gratitude</p>

Table 4: Integrated Lenses

Integrated reflective lenses

	Example	Integrated learning outcomes
<p>Ongoing need for listening and responsiveness</p>	<p>I saw one of my chronic pain patients for med refill this week. She has multiple medical issues, chronic pain, fibromyalgia, and social stressors. Sometimes I feel like I don’t do anything for these types of patients. They come in, we talk, and they go home. There isn’t a way to cure their pain and suffering, even when I understand how immediate symptoms connect to their world.</p> <p>I was reminded this week, however, that maybe just listening and being present is healing. I hadn’t seen this woman in a few months because she was scheduled with other providers. She said she didn’t like one of the other doctors, whose bedside manner was terrible, and she made her uptight. She thanked me for listening and said that I have really been helpful to her, and she really noticed that when she had another doctor who didn’t listen so well. I think this listening and being present can also be used when teaching med students. I really try to listen to what patients are saying, because it feels bad when</p>	<p>Pain and suffering broader than symptom reduction (<i>diachronic medical education</i>)</p> <p>Communication as listening and being present (<i>communication and diachronic narrative</i>)</p> <p>Being present as communication and recognition of aspects of human flourishing beyond immediate response (<i>diachronic narrative,</i></p>

	<p>people don't listen to you. I can tell when the attending docs don't listen. I go through a patient's story, then the attending asks questions about things that I just gave the answers to. Sometimes they don't hear me at all. It makes me feel like they don't care, and I know they do, but I feel immense gratitude when they really listen, and I feel really understood.</p>	<p><i>communication, and human flourishing)</i></p> <p>Gratitude for listening and being understood (<i>diachronic narrative and human flourishing)</i></p>
Medicine as art	<p>Today my first patient (ever!) who sliced off the tip of his thumb with a meat slicer. I was a little unsure of how to handle the problem, but it turned he really wanted a referral to a hand surgeon. When I understood the goal it was manageable. When it came time to dress his wound, I was also tentative as to what to do. In my head I had come up with a suitable dressing, but my attending suggested something different. The patient had strong opinions about what would and wouldn't work to wrap his thumb, so we had to take that into account. Eventually, we came up with a suitable solution, and I was kind of surprised that there wasn't one right answer. I worried first that I was incompetent when my idea, but now I'm realizing there can be multiple right answers, and also how the situation and patient preferences also make the practice of medicine much more of an art than I'd realized.</p> <p>It was a <i>freeing</i> patient encounter. I just had to think critically, incorporate the patient's preferences and the situational limits, and make an informed choice (of which there may have been several options). By just taking a deep breathe it all ended up much easier than I'd first imagined. I appreciate that seeing my limitations keeps me from doing everything, but allows me to see what I can do well.</p>	<p>Uncertainty and goal management connected to patient preferences and communication (<i>communication and diachronic narrative)</i></p> <p>Multiple options for treatment connected to communication with patient and with attending supervisor (<i>communication and medical education)</i></p> <p>Learning focus over conclusion of incompetence (<i>diachronic narrative and human flourishing)</i></p> <p>Freedom in realizing learning exists beyond absolute right answer (<i>communication and medical education)</i></p> <p>Medicine as an art and in richness of encounter (<i>diachronic narrative and human flourishing)</i></p>
Mindfulness and peace as reciprocal processes	<p>I am reminded of a stillness I knew when my kids were younger and life was simpler... before the pressures to score, impress, achieve... before the sleeplessness that I thought was interminable as a parent but found much worse as an intern and with less immediate reward than a baby fast asleep at the breast, contented. Instead I faced patients with the need for more narcotics, relentless pain, vomiting, fear, anxiety, delirium—things I could fix for a minute</p>	<p>Stillness as peace and as connected to broader life world (<i>diachronic narrative, communication, and human flourishing)</i></p> <p>Softness in paying attention and in connection to physician</p>

	<p>with a soothing word or touch sometimes, or a drug at others, but exhausting work.</p> <p>Somewhere in intern year I lost my softness and didn't realize it until yesterday. A simple class on mindfulness reminding me of my roots in mind-body medicine, my inner peace, and the tremendous value of a mindful path for personal healing, composure and compassion as a physician, and for teaching my patients for managing their own illnesses, struggles, pain, anxieties. I am grateful for the reminder and grateful to be in a medical program that reminded me to practice.</p>	<p>development and reflection (<i>diachronic narrative, communication, and human flourishing</i>)</p> <p>Reminding me to practice connected to compassion (<i>diachronic narrative, communication, and human flourishing</i>)</p> <p>Gratitude for broader reminder, for program, for reminder of limitations (<i>diachronic narrative, communication, and human flourishing</i>)</p>
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