Beyond the Margins: Reflective Writing and Development of Reflective Capacity in Medical Education

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Reflective capacity has been described as an essential characteristic of professionally competent clinical practice, core to ACGME competencies. Reflection has been recently linked to promoting effective use of feedback in medical education and associated with improved diagnostic accuracy, suggesting promising outcomes. There has been a proliferation of reflective writing pedagogy within medical education to foster development of reflective capacity, extend empathy with deepened understanding of patients' experience of illness, and promote practitioner well-being. At Alpert Med, "interactive" reflective writing with guided individualized feedback from interdisciplinary faculty to students' reflective writing has been implemented in a Doctoring course and Family Medicine clerkship as an educational method to achieve these aims. Such initiatives, however, raise fundamental questions of reflection definition, program design, efficacy of methods, and outcomes assessment. Within this article, we consider opportunities and challenges associated with implementation of reflective writing curricula for promotion of reflective capacity within medical education. We reflect upon reflection.

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> "…*Writing improves clinicians' stores of empathy, reflection, and courage*"[1]
> *"Writing that affects the reader is art"*[2]
> Rita Charon, MD, PhD

The writer is a medical student; the reader a medical educator charged with providing quality feedback to a student's reflective narrative in order to promote reflective capacity (RC). Both the writer and reader use the medium of the written word for meaning making within the often ambiguous, sometimes arduous journey of becoming a physician. Grappling with chaos and complexity, sometimes achieving clarity, sometimes not, as the colorful tapestry of patient interactions often contains shades of grey. Capturing the lived experience of the patient–physician encounter in the description and subsequent reflection. The transformative act of reflection—the implicit becomes explicit and new habits of mind develop.

What have we here? A key realization about reflective writing (RW) and other narrative medicine initiatives within medical education has emerged – these exercises resonate with the core of clinical practice. Indeed, clinical reasoning has been described as a narrative, interpretive, and experiential activity.[3]

Charon, an internationally regarded authority on narrative medicine – medicine practiced with the competence to recognize, absorb, interpret, and be moved by stories of illness- taught us about enhancing patient-centered medical practice through the use of literature and RW to build "narrative competence" (contained in and almost synonymous with the definition of narrative medicine).[4] Clinicians, after all, fundamentally teach, communicate, and reason through cases with stories[3]. Such pedagogy is no longer the renegade new kid on the block—these theoretical underpinnings have served as a foundation for proliferation of narrative medicine curricula initiatives within medical education.

Through interactive RW—reading and responding to students' reflective narratives—we teach our students to "slow down"[5] and become more aware in the clinical encounter as they elicit a patient's story and embark on diagnostic reasoning. Referencing the student's actual text that represents this experience, medical educators facilitate development of RC with supportive challenging of assumptions, exploring emotional responses (of patient and student), and encouraging consideration of new perspectives as relevant. In parallel process, we suggest, critical reflection on our use of RW to foster RC in medical education appears timely.

Competency-based medical education is the golden standard for both undergraduate and graduate medical education with RC now highlighted as integral core component. The Accreditation Council for Graduate Medical Education (ACGME) of the U.S. for example, promulgates acquiring six core professional practice competencies, documented within a portfolio supporting reflection.[6] "Tomorrow's Doctors 2009", the General Medical Council (GMC) of the UK's documentation of outcomes and standards for undergraduate medical education (to be implemented by 2011) mandates a professional development portfolio containing "reflections, achievements, and learning needs" as a foundation for lifelong learning and continuing professional development.[7] Furthermore, the GMC standards include continuous reflection on practice and translating that reflection into action when necessary. Easier said than done.

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RC can present a challenge for educators charged with implementing effective pedagogy and assessment. What is reflection? Why is it deemed essential for acquiring core competencies? Can it be learned? Assessed? Within such contemplation, we review the use of a narrative medicine subset, i.e. RW, as a vehicle to foster development of RC within medical education, consider various pedagogic initiatives, and attempt to delineate future directions for practice and research in this domain. We shall reflect upon reflection.

SHINING LIGHT ON REFLECTIVE CAPACITY

Definitions of reflection abound though generally include review, interpretation, and understanding of experiences to guide present and future behavior. "Reflection is a metacognitive process", Sandars recently defined, "that occurs before, during, and after situations with the purpose of developing greater understanding of both the self and the situation so that future encounters with the situation are informed from previous encounters".[8] Both "reflection" and "reflective capacity" terminology has been used[11]; we have selected "reflective capacity" as our modus operandi to refer to the ability to reflect; the putting of the reflection construct into effect. Mann et. al.'s comprehensive review of reflection and reflective practice in health professions education highlighted some theoretical pillars as central for educating the "reflective practitioner".[9] These included Schon's core processes of "reflection-in-action" (reflection in the moment) and reflection-on-action (post-experience reflection)[10], Boud et. al.'s inclusion of attending to feelings in reflective process[11], and Mezirow's description of reflective learning as "either confirmation or transformation of ways of interpreting experience" ([12], p. 6). Schon described reflective practice as a "dialogue of thinking and doing through which I become…more skillful ([13], p.31) and used the term "professional artistry" to "refer to the kinds of competence practitioners sometimes display in unique, uncertain, and conflicted situations of practice" ([14], p. 8). RC is at the core of mindful practice which includes self-awareness, regulation, and monitoring, clarifying values, and recognizing the affective domain of medical care [15]. Recently, RC was described as facilitating linkage between receiving and using of feedback[16,17]. In line with claims of reflection promoting development of medical expertise [18] and "phronesis" (practical wisdom) [19], promising new evidence of an association between analytical reflective reasoning and improved diagnostic accuracy in challenging cases has been offered. [20]

Schon's metaphor of jazz improvisation for capturing the essence of practice is apt.[10] In line with his purporting practice to be thoughtful action with reflection, going beyond "technical rationality", he described musicians' use of both "familiar, predictable musical schema" as well as a readily available "repertoire of musical figures" to adjust their performance as they gain a new sense of the unfolding music. ([10], p.55). "The goal of reflection", according to Epstein, "should be to develop not only one's knowledge and skills, but also habits of mind that allow for informed flexibility, ongoing learning and humility"[19], consonant with a concept of "balanced professionalism" or integration of scientific and self-reflection.[21] RC, we suggest, offers tangible expression of such a desired blend in medicine, i.e. the cumulative scientific knowledge base and the practical wisdom (phronesis) to apply it… in essence, the embodiment of medical expertise.

REFLECTIVE WRITING CURRICULA IMPLEMENTATION AND REFLECTIVE CAPACITY: OPPORTUNITIES AND CHALLENGES

RW has been described as an effective mechanism for promotion of self-reflection and self-directed learning within medical education.[4,22] Curricula implementation has included RW groups for students, journaling, portfolios, video essays, and interactive RW, i.e. use of faculty feedback to support learners' development of more sophisticated reflection skills.[23–25]

Recent studies have, however, shown low levels of reflection in RW within residency training[26,27] as well as variable level of reflection in medical students' RW[28], supporting the premise that reflection is not necessarily intuitive and educational interventions are warranted. Prospects are promising. Instructors' written feedback, for example, stimulated additional reflection in clerkship students' reflective postings to a class blog.[29] Still, examples in the literature of structured individualized feedback to students' RW are scant and the noted absence of a structured, practical framework for written feedback has fueled our research efforts. At Alpert Med, we have recently implemented a rigorously developed tool for enhancing the educational impact of written guided feedback by faculty to students' RW, representing an evolution from more intuitive curricular initiatives to a more theory-supported approach.[25,30,31] The BEGAN (Brown Educational Guide to the Analysis of Narrative) guides faculty to craft feedback incorporating reflection-inviting questions, relevant personal and clinical anecdotal experiences, optional close reading analysis, and "lessons learned".[32].

And what of acceptability, i.e. student "buy-in"? Students' feedback to RW initiatives has been mixed. Less RW engagement within learning styles of the "Net Generation", for example, presents additional pedagogic challenges.[33] Innovative use of Web 2.0 technologies has been proposed since learning preferences of the "Net Generation" include environments rich in multi-media images and working in groups for social interaction[33]. In addition, enhanced learning through peer-to-peer feedback within reflective writing group exercises[23,34] highlights the potential for social media tools, particularly wikis, blogs, and podcasts, to improve and add new collaborative dimensions to reflective learning.[35] The quest for sound approaches to fostering RC as a vehicle for "phronesis" (practical wisdom/adaptive expertise to guide action), which may include RW and related educational initiatives (such as mindfulness curricula, reflective blogs) in medical education merits further attention.

GRAPPLING WITH THE GRAY—MEASUREMENT OF RC IN RW

Inherent metacognitive, tacit processes of RC[36] can appear obscure, rendering its explicit formulation and measurement elusive. "Templates" for assessing reflective learning through storytelling have been developed.[37] Theoretically based measures of RC are available, albeit many in self-report form,[21] and different levels of RC can be discerned. Promising avenues

include the use of both qualitative and quantitative methods for analyzing RW such as close reading[3], thematic analyses,[38,39], and use of a rubric to evaluate level of reflection. Limitations of some available rubric coding systems, including difficult-to-apply textual elements have been described.[40] Our current efforts at Alpert Med entail developing a future "best practice" rubric, one that is concise, reliable and valid in "user-friendly" format, the "*REFLECT*" (Reflection Evaluation For Learners' Enhanced Competencies Tool).[41,42] We propose a "marriage" of literary and evaluative approaches to narrative – combining appreciation of narrative gestalts and other close reading-derived insights (eg. as we craft feedback) and rubric assessment of RC. We traverse new terrain here, not only in regard to RW evaluation. Implementation of newer creative approaches to fostering reflection such as multimedia approaches with or without inclusion of narrative can create assessment quandaries.[33]

The issue of compromised authenticity with students adopting a more formulaic approach to RW may emerge as formal assessment of RC within RW is implemented. In essence, how can learners' authenticity be preserved[43] despite potential for "social desirability" within an educational context? With developing professionalism, might honest sharing of more sensitive topics such as recognition of ethical dilemmas be impacted? Such provocative questions challenge educators to explore most effective faculty-facilitated reflection and reflection-fostering environment or "culture" within the institution in general.

Initial enthusiasm for the promising field of RC promotion through RW and other initiatives is sobered by the need to assess the construct within stages of the professional life cycle and demonstrate its effectiveness in professional practice. While RC has now been associated with improved diagnostic reasoning[20], for example, such direct correlation with RW does not presently exist. Furthermore, can emergence of ethical, cultural, and/or empathic sensitivities or competencies be reliably detected within RW initiatives? Could RW-fostered RC potentially improve communication skills within the physician-patient encounter? Much to reflect upon.

The challenge in medical education, in the broader scope, is to determine how a student writing reflectively during preclinical years, then journaling or engaged in mindfulness training in the clinical years and finally, participating in reflective writing groups during residency (perhaps with a portfolio), emerges as a mindful practitioner. Such methodology may prove effective in promoting RC during various stages of the professional life cycle though "best practice" remains uncertain. In essence, how can we best assess the use of RW- enhanced RC to support clinical decision-making, effective patient-centered care, and maintenance of well-being in clinical practice (e.g. preserving empathy and preventing "burnout")?[12] RW curricula initiatives thus far, including interactive (student-faculty dyad, peer-to-peer) paradigms are building blocks for the desired mindful practitioner—it is the architecture of developing RC through phases and longitudinal trajectories of the professional life cycle with its content, process, and outcomes that now invites further reflection.

CONCLUDING REFLECTIONS

As jazz musicians engage in dynamic interplay, improvising on musical structure for a melodious outcome, so too it is hoped can RC promote informed flexibility in applying patient-centered medicine. At a recent conference on reflective practice, health care practitioners were challenged to consider factors within their practice which impact critical reflection on "sayings, doings, and relatings" (paraphrased core competencies of practice we suggest).[44] As interdisciplinary interest on an international scale continues to grow in RW and the role of RC in health care practice, increased rigor in theory building, curricula implementation, assessment, and especially outcome research is called for in order to demonstrate authenticity and sustainability of such constructs. Such efforts can help realize the promise of RW as a vehicle for promoting RC and its role in building professional identity as well as for guiding development of medical expertise, leading to the formation of a mindful, compassionate, and competent practitioner.

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