The Problem With Competencies in Global Health Education

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Abstract

The demand for global health educational opportunities among students and trainees in high-income countries (HICs) has led to a proliferation of available global health programs. In keeping with the drive towards competency-based medical education, many of these programs have been defining their own global health competencies. Developing such competencies presents several unique challenges, including (1) a failure to take sufficient account of local contexts coupled with a lack of inclusiveness in developing these competencies, (2) the disjunction between the learning approaches of "individualism" in HICs and the relative "collectivism" of most host countries, and (3) shortcomings associated with assessing competencies in resource-limited settings. To meet these challenges, the author recommends reenvisioning the approach to competencies in global health using fresh metaphors, innovative modes of assessment, and the creation of more appropriate competency domains.

Interest in "global health" among students and trainees in high-income countries (HICs), especially in North America and Europe, has increased briskly over the past decade. This demand has led to a frenzied growth in the number of available global health education and training programs. Because the development of such programs has been competitive and hence at times rushed, global health curricula may have poorly defined goals and objectives.

Currently, the predominant structure of global health programs includes "electives" or "rotations" of a defined time period during which trainees from HICs engage in health work in low- and middle-income countries (LMICs). Educators in global health now generally agree that such training programs should be competency based in order to facilitate the education and assessment of trainees in resource-constrained settings in LMICs. Frenk et al,[1] in a landmark article in *The Lancet*, similarly argued for competency-based education of health professionals derived from the contexts of local "health needs and systems."

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In this paradigm of global health education in which trainees from HICs travel to LMICs usually for relatively short elective periods of one or more months (or a year), the development of competencies in global health has been problematic. I argue that three factors contribute to this difficulty:

1. The process of developing global health competencies is often insufficiently inclusive of input from host country health professionals and furthermore fails to take adequate account of local health contexts.
2. There remains an unresolved disjunction between "individualist" and "collectivist" approaches to learning and competency in HICs and LMICs.
3. The methods applied and resources available for global health competency assessment are frequently inadequate.

I examine these factors in this Commentary and conclude by suggesting three ways in which we might begin to reenvision our approach to competencies in global health.

A One-Sided Process Oblivious to Contexts?

Several programs have attempted to distill a definitive list of "global health competencies."[2–4] The process of deriving these lists of competencies, however, has frequently been driven by consensus between programs in HICs and has often failed to sufficiently include the viewpoints and experience of health professionals in the host LMICs. In some instances, this had led to competencies that prioritize the interests of the HIC program rather than the health contexts of the host country. For example, Hagopian and colleagues[2] provide a guide to the process of developing global health competencies that does not appear to include participation or input from host countries. Morever, they suggest that programs develop competencies as a strategy to promote and convey their "identity and distinct values" to student applicants. To my mind, the prime focus of global health competencies should not be to further the interests of a training program but should, instead, be unambiguously linked to local health system needs and contexts.

Frenk and colleagues[1] insist that "All aspects of the educational system are deeply affected by the local and global contexts. Although many commonalities might be shared globally, there is local distinctiveness and richness." An ongoing debate about competencies is whether they are "context-linked" or "context-free." By emphasizing the importance of understanding the system in which one practices medicine, the Accreditation Council for Graduate Medical Education (ACGME) systems-based practice competency suggests a link between competency and context, but the context of this widely accepted competency lacks specificity and remains generic. The context-free perspective posits that "[A] competent practitioner is generally

competent—that is, their performance in one situation should predict future performances in other, similar situations."[5] Context-free competencies can be taught and practiced independent of the particularities of specific health contexts. This conveniently simplifies their teaching and assessment.

In global health, however, contexts vary widely. Seasoned workers in global health understand that being competent in one health context may not translate into competence in a different context. Most would argue that competencies in global health are inextricably linked to contexts. Yet too often the compendium of global health competencies that HIC trainees are expected to achieve are not linked to specific contexts but remain generic and context-free so as to be conveniently applicable to any one of the multifarious LMIC sites trainees in a specific program might choose for their elective visit. Whether competencies are context-free or context-linked is important because this determines how such competencies are developed, assessed, and maintained.

Individualist and Collectivist Approaches

In a seminal essay, "Rethinking competence in the context of teamwork," Lingard[5] compares and contrasts the "individualist" and the "collectivist" approaches to learning and competence—a discourse of central relevance to the problem of competency in global health. In HICs of North America and Europe, which rank high in autonomy and individualism,[6] learning is viewed as something that occurs "within the individual." This "individualist" approach to learning views competence as an attribute or quality that individuals "acquire" and "possess." If learning and competence are "housed" within the individual, they "move with" the individual and are not linked to contexts. If competencies are attributes the individual can acquire through learning, we can assess them by testing the individual, and we can reward individuals who demonstrate superior performance.

The individualist view of learning and competence contrasts with "collectivist" (social or distributed) learning theories in which learning is "situated" or "distributed" within a group or community and arises through participation and dynamic interactions within the group. According to the collectivist view, "Competence … is not possessed by the individual but negotiated by the group, through work and talk."[5] Sfard[7] made the metaphoric distinction in learning between "participation" and "acquisition" that relate, respectively, to collectivism and individualism. Participation refers to the dynamic learning that occurs through the group: "Participation is learning" and "learning (like participation) is viewed as a continuous process" rather than as an "acquisition" or attribute of the individual.[5] Participation views learning as inextricably linked to its context rather than transferable across contexts.

The distinction between individualist and collectivist learning theories is of central relevance to global health education and the question of competence. HICs are individualist, whereas LMICs are generally collectivist in their approach to learning. Collectivist cultures understand themselves primarily in terms of the group or collective they belong to; they are intrinsically participatory and collaborative and give precedence to the goals, wishes, and decisions of the collective over their own.

When trainees from individualist HICs engage in global health work in the collectivist settings of LMICs, a disjunction of perspectives, attitudes, and approaches to learning may lead to dissonance, if not discord, in work and academic environments. That such dissonance frequently occurs with HIC trainees working in the collectivist settings of LMICs became apparent during a session on global health competencies at the 2014 Consortium of Universities for Global Health conference in Washington, DC. Several faculty complained about the insensitivity to and lack of awareness about group dynamics displayed by trainees whose proactive, individualist approach to learning and health care jarred at times with the participatory and collaborative norms of collectivism in host countries.

A common rejoinder to suggestions of dissonance as a consequence of the individualist–collectivist disjunction in global health education is that HIC trainees receive ample didactic preparation and are usually required to demonstrate "global health competency" prior to working in global health settings. Indeed, global health competencies, it is argued, are devised specifically to avert such dissonance. These competencies include cultural competency specific to the local contexts of LMICs and, more broadly, the ACGME systems-based practice competency and the CanMEDS collaborator competence. As Lingard[5] points out, however, these competencies fall short because they are still "conceptualized at the level of the individual" as attributes to be "acquired," "possessed," and assessed rather than arising dynamically through social interaction and participation.

The disjunction between the individualist and collectivist viewpoints, however, also creates a conundrum in global health education for effective assessment of competencies.

Assessing Competencies in Global Health Education

The individualist approach to learning assumes that knowledge and competency can be assessed. This assumption underlies the slew of assessment strategies in medical education, including licensures, board exams, continuing medical education, and maintenance of competence assessments. Collectivism and resource-limited settings present a more complicated challenge to assessment.

The participatory and collaborative qualities of collectivism are dynamic and context-dependent. The assumption that we can reliably assess individual trainees in global health settings for competencies like "communication," "collaboration," or "cultural" competence is misguided according to Lingard[5] because it "reduces the social exchange to individual qualities."

Besides the collectivist disjunction, the constraints of resource-limited settings further complicate effective assessment of competency in several ways. First, in resource-limited settings, direct observation of trainees for competency assessment is often not possible because of a lack of available faculty or the demands of faculty workload in overcrowded hospitals and clinics. Holmboe[8] has drawn attention to the inadequate quantity and quality of direct observation in assessing competency,

even in the resource-rich settings of HICs: "[T]he quality and quantity of direct observation has been persistently insufficient across the medical education continuum…. Effective assessment requires direct observation."

Second, faculty in LMICs assessing trainees from HICs may lack a frame of reference for effective assessment of such trainees, who were educated in different medical education systems and often trained in high-tech tertiary care settings. What are the trainees expected to know and not know? How should they compare alongside local trainees? How should the trainees' learning improvement be determined given the generally short duration of visits? Faculty in LMICs may have different modes and ranges of assessment and, even if presented an assessment instrument by the incoming HIC trainee for his or her assessment, may have insufficient familiarity with the instrument to apply it reliably.

Third, the "checklist" format that is frequently used as a matter of convenience for competency assessment in global health settings is inadequate. Visiting trainees may present such checklist assessment forms from their home institution to their host supervisory faculty and request that they complete the form by the end of the visit period. Checklists appear convenient, especially in the global health setting, given the constraints of faculty and time, differences in contexts, and the limited communication between home and host faculty. However rather than making assessment objective, checklists have "led to trivialized and mechanistic types of assessment."[9] In global health, there is also a tendency for host faculty, who may not have had time to adequately observe trainees, to overrate their visitors for the sake of maintaining goodwill. As a result, trainees may overestimate their capabilities and competence.

Fourth, resource-constrained systems may themselves quite often not yet be sufficiently "competent" for the training and assessment of competent practitioners. Carraccio and Englander[10] call attention to the "importance of the clinical microsystem in which one trains." They cite the seminal studies of Asch and colleagues[11] that examined the complication rates of obstetricians in the United States as a function of their training environment and demonstrated that the "competence" of the specific training environment affected each trainee's ensuing level of competence. Inadequate ("incompetent") programs produce incompetent trainees. Resource-constrained systems lacking a certain level of competence may lack the capacity and capability to effectively assess the competency of visiting trainees.

Finally, to cope with the generally recognized waning of competency over time, education systems in HICs have implemented multifarious continuing medical education and maintenance of competence programs. We have not yet adequately developed such programs for maintaining competence in global health. Physicians developing careers in global health over several years may risk overconfidence about working in specific resource-limited contexts, especially because the health care systems in many LMICs are quite changeable as a consequence of epidemiologic, socioeconomic, and political flux.

Reenvisioning Competency in Global Health

Given these problems in developing and assessing competencies in global health, are such competencies infeasible? Or might we rethink our approach to competency? As a humble start, I suggest three ways in which we might reenvision competencies in global health.

Reenvisioning the individualist–collectivist disjunction

Reenvisioning the individualist–collectivist disjunction in global health requires that we first acknowledge that each approach has validity and merit. Lingard[5] indicates that individualism and collectivism each have important roles in "[d]rawing our attention to some aspects of competence and leaving other aspects unaddressed."

Lingard[5] furthermore proposes that competence has "the potential for multiple constructions." One might therefore consider "rethinking" or reenvisioning our metaphorical constructs of competence to encompass both individualism and collectivism. For example, the metaphor of "shared mind" proposed by Epstein and Street[12] and further developed by Leung and colleagues[13] bridges individualism and collectivism by conceding that "cognition is to some degree shared across individuals" and that humans possess both individual wisdom and also need social connectedness. Previous concepts of *distributed cognition*[14] and *collaborative cognition*[15] did not encompass the social and participatory dimension of "shared mind." "Sharing" would, for instance, require that global health competencies not be developed one-sidedly in HICs but, rather, be inclusive of input from health professionals working in the resource-limited settings of LMICs. Likewise, in developing global health competencies, the health contexts of LMIC settings should be included and "shared."

Self-directed assessment that draws on group participation

Given the challenges of assessing competencies in resource-limited settings, a more feasible mode of assessment may be self-directed assessment. The challenge of this approach rests in the ability of the individual to accurately perceive performance deficiencies and seek appropriate feedback, assessment, and guidance. Eva and Regehr[16] coined the phrase "self-directed assessment seeking" to describe a process in which trainees actively engage in seeking assessment, and faculty and programs empower them to do so. In collectivist settings the trainee might also engage other health workers, such as nurses, administrators, and community workers, in seeking ongoing formative feedback and assessment. Holmboe and colleagues[17] have suggested incorporating more "qualitative" and "narrative" approaches to assessment that allow for "words instead of numbers." Such approaches may allow a level of specificity for the trainee to implement improvements and devise learning plans with group participation.

This approach may require an element of resourcefulness that global health trainees tend to be adept at, as well as a participatory approach between trainee and faculty that aligns with collectivism. In resource-constrained settings, learners more directly encounter the limits of their knowledge and ability. Bjork,[18] Schmidt,[19] Eva,[20] and others have propounded the notion that a major way in which learning occurs lies in understanding the limits of our knowledge and in making mistakes.

Koriat and colleagues[21] coined the term "desirable difficulties" to describe the notion of creating mistake-inducing learning tasks that make the learner uncertain and uncomfortable but result in enhanced learning retention. Such desirable difficulties are naturally encountered in resource-limited settings and, as described, provide unique opportunities for learning. As Eva and colleagues[22] point out, the value of desirable difficulties may include the motivation and self-monitoring to deliberately seek out self-directed assessment opportunities and information of relevance to enhancing performance. The participatory and social engagement of other health professionals in such self-directed assessment may provide further monitoring and alleviate the need for ongoing direct observation.

Defining new global health competency domains

Given the shortcomings of current global health competencies, we may need to define additional competency domains. One such domain may derive itself from the nature of "resource-constrained (or resource-limited) settings." These settings, although challenging, also offer unique opportunities for learning. Indeed, I believe that it is the limitations of these settings and the learning opportunities they present that attracts students and trainees to "global health." Resource-constrained settings demand a kind of learning seldom encountered anymore in the resource-rich settings of HICs. This kind of learning draws maximally on the trainee's resourcefulness, resilience, and communication skills and requires a self-understanding of the trainee's limitations. One might therefore envision an assessable competency domain along the lines of *resourcefulness learning*. The notion of a resourcefulness competency also fits with the approaches, discussed above, to self-directed assessment through the creation of desirable difficulties.

Another new competency domain in global health might conceivably center on "transprofessional education," a model suggested by Frenk and colleagues.[1] Carraccio and Englander (2013)[10] have proposed the new competency domain of "interprofessional collaboration (IPC)." "Transprofessional education" goes a step further in the context of global health by including community health workers in health professions education.

Additional competency domains might also focus (through concepts like the "shared mind," detailed above) on bridging the divide between individualism and collectivism.

Conclusions

Developing competencies for students and trainees in global health education presents a number of distinct challenges that have gone unrecognized while the discipline has rapidly expanded in size and scope. We should address these challenges in a timely and inclusive manner with effective and reliable methods of assessment. This may call for reenvisioned metaphors of sharing and inclusiveness, different approaches to assessment, and possibly the development of new competency domains.

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