

SHORT COMMUNICATION



Beyond advising and mentoring: Competencies for coaching in medical education

Meg Wolff^a , Nicole M. Deiorio^b , Amy Miller Juve^c , Judee Richardson^d, Gail Gazelle^e, Margaret Moore^f, Sally A. Santen^b  and Maya M. Hammoud^g 

^aDepartments of Emergency Medicine and Pediatrics, University of Michigan Medical School, Ann Arbor, MI, USA; ^bDepartment of Emergency Medicine, Virginia Commonwealth University, Richmond, VA, USA; ^cDepartment of Anesthesiology and Perioperative Medicine, Oregon Health and Science University, Portland, OR, USA; ^dMedical Education Strategy Unit, American Medical Association, Chicago, IL, USA; ^eDepartment of Medicine, Brigham and Women's Hospital, Boston, MA, USA; ^fInstitute of Coaching, McLean Hospital, Harvard Medical School Affiliate, Belmont, TN, USA; ^gDepartment of Obstetrics and Gynecology, University of Michigan Medical School, Ann Arbor, MI, USA

ABSTRACT

Background: Coaching supports academic goals, professional development and wellbeing in medical education. Scant literature exists on training and assessing coaches and evaluating coaching programs. To begin filling this gap, we created a set of coach competencies for medical education using a modified Delphi approach.

Methods: An expert team assembled, comprised of seven experts in the field of coaching. A modified Delphi approach was utilized to develop competencies.

Results: Fifteen competencies in five domains resulted: coaching process and structure, relational skills, coaching skills, coaching theories and models, and coach development.

Conclusion: These competencies delineate essential features of a coach in medical education. Next steps include creating faculty development and assessment tools for coaching.

KEYWORDS

Mentoring; medical education research; medicine

Introduction

The field of medicine is constantly evolving. The demand from health-care providers (HCP) for rapid personal and professional development, adaptive expertise and self-directed learning is essential to accelerate HCP's change (Friedman 2016). Each new treatment, emerging infection and transformative health policy requires HCPs to rapidly adapt for high-quality care. Academic coaching in medical education is described as a process to facilitate development of self-directed, fast-changing, adaptive expertise in HCP training (Deiorio et al. 2016; Cutrer et al. 2018).

Coaching is ubiquitous in performance-focused professions (e.g. music, sports and business). Emerging recently, coaching for physicians supports leadership development and wellbeing (Dyrbye et al. 2019). It has been described in medical education as a way to help learners achieve their full potential (Deiorio et al. 2016) and coaching programs for learners have increased significantly (Wolff et al. 2020). In addition to improving learner well-being, coaching improves technical skills and enhances non-technical skills (Lovell 2018; Wolff et al. 2020). Similar to mentoring and advising, coaching is a process focused on an individual's development. Mentoring and advising, however, are generally directive and designed to intentionally transfer information from a more senior individual to a more junior one (Deiorio et al. 2016). In contrast, coaching is learner-driven with the coach helping 'learners gain insights into

their own assumptions, clarify meaning about relevant outcomes, and help identify specific actions needed to achieve a desired result' (Deiorio et al. 2016).

Coaching is essential to the development of the master adaptive learner (MAL) (Cutrer et al. 2018). MALs are self-regulated learners in constant pursuit of identifying and mitigating their knowledge gaps to adapt and evolve their practice (Cutrer et al. 2017). Systematically coaching the learner through the Planning, Learning, Assessing and Adjusting phases of the MAL process prepares trainees to rapidly flex between routine and innovative expertise as needed (Cutrer et al. 2020).

Despite significant growth, no clear standards exist for preparing coaches in medical education. Training has been adapted from existing mentoring and advising programs or extrapolated from the executive coaching literature (Deiorio and Hammoud 2017; Athanasopoulou and Dopson 2018; ICF 2019). The International Coaching Federation (ICF) describes core competencies for certified, professional coaches (ICF 2019). However, given the unique context of medical education, the desire to facilitate MAL skills development and the consideration that coaches in medical education often engage in multiple roles simultaneously (Brooks et al. 2020), we identified a need to develop specific competencies for coaching in medical education. Without clear competencies, it is difficult to train coaches, assess performance or evaluate a coaching program. This hinders development of outcome measures to determine

whether coaching programs are effective and worthy of expansion within medical education (Carney et al. 2019). To address this, we developed a set of core coaching competencies for medical education.

Methods

The Delphi process is well-established for building expert consensus (Hasson et al. 2000) and has been used to develop competency frameworks for HCPs in practice (Tognetto et al. 2019) and in training (Santen et al. 2014). The process consists of iterative rounds of data collection, collation of data and then presentation of the data back to the group for review and refinement.

We performed a scoping review between 2010–2020 limiting articles to the English language in PubMed, ERIC: Educational Resources Information Center database, and PsycNet, utilizing the following search terms: coach, coaching competencies, coach training and medical education. Snowball reference cross-checking was completed to find additional papers. All abstracts were reviewed; manuscripts pertaining to health coaching of patients were excluded. In October 2018, a national Thematic Coaching Meeting including AMA Accelerating Change in Medical Education Consortium schools (AMA 2020), experts in coaching, adaptive learning, neuroscience and medical education convened. Informed by our review of the literature, we led the discussion and generated categories and individual competencies, using the International Coaching Federation (ICF) model as a starting point (ICF 2019).

Results were provided to our expert panel who proposed new competencies. Eight individuals were recruited at the Thematic Coaching Meeting to serve on the expert medical education and coaching panel; seven participated. Three were ICF certified coaches, one was a medical educator trained as an executive coach and the remainder were medical educators who had experience with coaching in medical education. Three rounds of consensus resulted in the final domains and competencies.

Results

All seven panel members participated in three Delphi rounds. This process resulted in 15 competencies in five domains focused on coaches working with learners across the continuum: coaching process/structure, relational skills, coaching skills, coaching theories and models, and coach development (Table 1).

Coaching structure and process

These competencies focus on coaching process logistics. These are essential to establish a clear understanding of roles and responsibilities, structure and cadence of encounters. Coaches should also explore how coaching relationship is working and not working and how to improve.

Relational skills

These competencies are critical in establishing trust and clear, effective communication. The coach needs emotional

intelligence and adaptability to understand the learner and adapt to needs. In addition, the coach must cultivate the coachee's emotional intelligence.

Coaching skills

Coaching skills are important in the development of the MAL through all four phases. The coach should guide the learner through these phases, using effective questioning to facilitate learner growth and maximum development. In addition, the coach supports the coachee in improving motivation and self-efficacy while cultivating well-being and professional fulfillment.

Coaching theories and models

Coaches should be well versed in coaching theories and models, to utilize the most appropriate models and tools as they facilitate achievement of individual learner goals.

Coach development

An essential component of this process is ongoing coach development as well as cultivating self-management. It is also important for a coach to recognize their limitations as a coach and know when to refer.

Discussion

We began to define competencies for coaches working with HCP learners. The resulting framework provides a starting point to develop learning objectives, training and development curricula for coaches. Competencies are the basis of defining effective coaching, developing effective coaches and creating coach assessments and performing programmatic evaluation, which is essential for demonstrating efficacy and value.

The competencies developed here share similarities with the competencies outlined by the ICF (ICF 2019) but the medical education context changes their dynamic. The stated goal of ICF is to credential coaches who want to help clients 'in a thought provoking and creative process that inspires them to maximize their personal and professional potential.' The competencies for coaches in medical education identified seek to go further and support the development of life-long, self-directed and adaptive learners. These MALs are self-regulated learners in constant pursuit of identifying and mitigating their gaps in knowledge to adapt and evolve their practice (Cutrer et al. 2018). The competencies identified highlight the coach's role in helping the learner develop skills needed to engage in the MAL process. The coach identifies and uses strategies specific to their coachee to encourage reflection about skills with the ability to plan, learn, adapt and adjust to meet their patients' needs. In the planning phase, the coach uses effective questioning to help the coachee determine goals and elicit learner self-reflection. In the learning phase, the coach engages in active inquiry with their coachee to determine the best learning strategies. In the assessing phase, the coach holds the coachee accountable and provides feedback to develop accurate self-assessment. In the

Table 1. Competencies for coaching in medical education.

Competency	Observed behaviors/Actions
Coaching structure and process	
Establishing the coaching agreement	<p>In the initial session, explore and align on:</p> <ul style="list-style-type: none"> • role of coach (facilitator, not mentor or instructor) and coachee (ready to commit to self-discovery, change) • coaching program principles (confidentiality; expectations; number, duration and timing of sessions; email/phone communication; program length, etc) • coachee's needs and interests (e.g. well-being, resilience, stress, communication, academic performance, professional development) • general outline of coachee's coaching goals or outcomes (how will we know the coaching program was successful?) • use of assessments and homework assignments for self-awareness and progress or outcomes measurement • support of authentic feedback from coach to coachee and learner to coach; continually evaluate coach/learner fit
Meeting management	<ul style="list-style-type: none"> • Schedule sessions • Empower coachee to set agendas • Initial sessions – debrief assessments; support coachee in developing vision or goals; explore values, motivation, strengths, and action plan • Ongoing sessions – coachee identifies area for exploration, explore coachee progress and learning, cultivate self-awareness with growth mindset, update action plan • Closing session – harvest progress and learning, and explore coachee's next steps without coach • Document sessions as needed
Managing process and accountability	<ul style="list-style-type: none"> • Help coachee integrate the Master Adaptive Learner model • Help coachee design accountability practices • Support coachee in tracking progress • Hold coachee accountable • Explore how coaching relationship is working and not working, how to improve • Discern whether coachee would benefit more from a teaching, mentoring, or counseling role
Relational skills	
Establishing a meaningful coaching relationship	<ul style="list-style-type: none"> • Establish trust and mutual respect • Demonstrate honesty and integrity • Use nonjudgmental and accepting communication, unconditional regard, to create psychological safety • Appreciate and accept diversity of coachee values, goals, perspectives • Address and resolve discord with coachee
Effective communication	<p>Elicit self-awareness, meta-awareness, self-reflection:</p> <ul style="list-style-type: none"> • Be present and give undivided attention • Engage in open, curious inquiry with no agenda or judgment • Use active listening (listen fully to words, thoughts, emotions, meaning, what's not being said, coachee's frame of reference) • Engage in reflections (e.g. summaries, amplified, empathy) • Use affirmation, reflect strengths, progress, successes, and learning
Cultivate coachee's emotional intelligence	<p>Help coachee navigate emotional states and emotional well-being:</p> <ul style="list-style-type: none"> • Help coachee cultivate positive emotions (positive questions) • Help coachee cultivate mindfulness and improve emotional awareness, meta-awareness • Help coachee cultivate self-compassion • Help coachee process emotions – noticing, naming, and experiencing • Help coachee explore and leverage emotions as growth opportunities – what needs are not met, what would help meet those needs • Help coachee cultivate self-regulation, recognizing emotions are produced by the brain based on past experiences not present reality
Coaching skills	
Fostering development of Master Adaptive Learners	<ul style="list-style-type: none"> • Help coachee understand their abilities in the MAL cycle (planning, learning, assessing, adjusting) • Support and guide coachee in engagement in being a MAL (critical thinking, reflection, self-monitoring, metacognition)
Support coachee in cultivating well-being and professional fulfillment	<ul style="list-style-type: none"> • Use open inquiry to support coachee in defining a vision of ideal self or goals for optimum well-being and professional fulfillment
Support coachee in improving motivation and self-efficacy	<ul style="list-style-type: none"> • Support coachee in cultivating key characteristics to the master adaptive learning process – curiosity about learning, intrinsic motivation, growth mindset, and resilience • Explore coachee's personal values and how they are expressed in vision, goals, and action plans • Cultivate coachee's internal motivation for change, including meaning, purpose, or calling • Explore coachee strengths • Explore coachee's resources and psychological capital (hope, optimism, self-efficacy and resilience)
Help coachee overcome challenges with co-creative collaboration	<ul style="list-style-type: none"> • Support coachee in problem-solving and co-creative brainstorming on new perspectives and possibilities • Support coachee in processing feedback • Continue to elicit MAL characteristics – curiosity about learning, intrinsic motivation, growth mindset, and resilience
Coaching Theories and Models	
Identify and use coaching theories and tools that best fit coachee's needs	<ul style="list-style-type: none"> • Identify and use the most appropriate coaching theories and tools best suited to the coachee's needs and goal
Use flexibility and adaptability	<ul style="list-style-type: none"> • Discern the changing (evolving) needs of the coachee and choose the appropriate inquiry, model or tool to support the coachee in achieving desired goals • Identify how the differences in goals may impact the utility of previously used coaching models and tools
Coach Development	
Cultivate self-development	<ul style="list-style-type: none"> • Seek coach training and ongoing coaching education • Work with a professional coach for self-development • Ensure own work is consistent with national standards
Cultivate self-management	<ul style="list-style-type: none"> • Hold oneself accountable to using coaching skills and processes, mindfully noticing and shifting when advising or mentoring • Cultivate own well-being as a role model – autonomy, competence, mindfulness, emotional intelligence, positivity, strengths, growth
Recognize limitations	<ul style="list-style-type: none"> • Recognize limitations as a coach and when to refer • Recognize good coach/coachee fit • Recognize when coaching might need to come to an end and facilitate this transition

adjusting phase, the coach identifies abilities of the coachee, assisting further development.

Conclusion and future directions

The next steps for academic coaching in medical education include: defining how we measure success of both learners and coaches; gathering validity evidence supporting coach competencies through assessment; developing tools to document and track the impact of coaching on learners, institutions, and coaches; and tracking coaching outcomes for best practice development and for defining the value brought to medical education.

Disclosure statement

The authors report no declarations of interest.

Notes on contributors

Meg Wolff, MD, MHPE, Associate Professor, University of Michigan Medical School.

Nicole M. Deiorio, MD, Associate Dean, Virginia Commonwealth University.

Amy Miller Juve, Ed.D., M.Ed³AMJ, Associate Professor, Oregon Health and Science University.

Gail Gazelle, Certified Coach.

Margaret Moore, MBA, Institute of Coaching, McLean Hospital.

Sally A Santen, MD, PhD, Senior associate dean, Virginia Commonwealth University.

Judee Richardson, American Medical Association.

Maya M. Hammoud, MD, MBA, Associate Chair for Education, University of Michigan.

ORCID

Meg Wolff  <http://orcid.org/0000-0002-3637-2653>

Nicole M. Deiorio  <http://orcid.org/0000-0002-8123-1112>

Amy Miller Juve  <http://orcid.org/0000-0003-1562-1339>

Sally A. Santen  <http://orcid.org/0000-0002-8327-8002>

Maya M. Hammoud  <http://orcid.org/0000-0001-7829-7930>

References

- AMA. 2020. Member schools of the consortium. American Medical Association [Internet]. [accessed 2020 Dec 22]. <https://www.ama-assn.org/education/accelerating-change-medical-education/member-schools-consortium>.
- Athanasopoulou A, Dopson S. 2018. A systematic review of executive coaching outcomes: is it the journey or the destination that matters the most? *Leadersh Q.* 29(1):70–88.
- Brooks JV, Ista K, Barth BE. 2020. Becoming a coach: experiences of faculty educators learning to coach medical students. *BMC Med Educ.* 20(1). <https://pubmed.ncbi.nlm.nih.gov/32611343/>.
- Carney PA, Bonura EM, Kraakevik JA, Juve AM, Kahl LE, Deiorio NM. 2019. Measuring coaching in undergraduate medical education: the development and psychometric validation of new instruments. *J Gen Intern Med.* 34(5):677–683.
- Cutrer W, Pusic M, Gruppen L, Hammoud M, Santen S, editors. 2020. How can I best support Master Adaptive Learners using coaching? In: *Master adapt learn*. 1st ed. Philadelphia (PA): Elsevier.
- Cutrer WB, Atkinson HG, Friedman E, Deiorio N, Gruppen LD, Dekhtyar M, Pusic M. 2018. Exploring the characteristics and context that allow Master Adaptive Learners to thrive. *Med Teach.* 0(0):1–6.
- Cutrer WB, Miller B, Pusic MV, Mejicano G, Mangrulkar RS, Gruppen LD, Hawkins RE, Skochelak SE, Moore DE. 2017. Fostering the development of master adaptive learners. *Acad Med.* 92(1):70–75.
- Deiorio NM, Carney PA, Kahl LE, Bonura EM, Juve AM. 2016. Coaching: a new model for academic and career achievement. *Med Educ Online.* 21(1).
- Deorio N, Hammoud M, editors. 2017. *Coaching in medical education, a faculty handbook | AMA*. 1st ed. [place unknown]: Chicago (IL): American Medical Association.
- Dyrbye LN, Shanafelt TD, Gill PR, Satele DV, West CP. 2019. Effect of a professional coaching intervention on the well-being and distress of physicians: a pilot randomized clinical trial. *JAMA Intern Med.* 179(10):1406–1414.
- Friedman T. 2016. *Thank you for being late: an optimist's guide to thriving in the age of accelerations*. New York (NY): Farrar, Straus and Giroux.
- Hasson F, Keeney S, McKenna H. 2000. Research guidelines for the Delphi survey technique. *J Adv Nurs.* 32(4):1008–1015.
- ICF. 2019. The Gold standard in coaching | ICF - Core Competencies; [accessed 2020 Dec 14]. <https://coachfederation.org/core-competencies>.
- Lovell B. 2018. What do we know about coaching in medical education? A literature review. *Med Educ.* 52(4):376–390.
- Santen SA, Peterson WJ, Khandelwal S, House JB, Manthey DE, Sozener CB. 2014. Medical student milestones in emergency medicine. *Acad Emerg Med.* 21(8):905–911.
- Tognetto A, Michelazzo MB, Ricciardi W, Federici A, Boccia S. 2019. Core competencies in genetics for healthcare professionals: results from a literature review and a Delphi method. *BMC Med Educ.* 19(1):19.
- Wolff M, Hammoud M, Santen S, Deiorio N, Fix M2. 2020. Coaching in undergraduate medical education: a national survey. *Med Educ Online.* 25(1):1699765.