Coaching: a new model for academic and career achievement

Nicole M. Deiorio, Patricia A. Carney, Leslie E. Kahl, Erin M. Bonura & Amy Miller Juve

To cite this article: Nicole M. Deiorio, Patricia A. Carney, Leslie E. Kahl, Erin M. Bonura & Amy Miller Juve (2016) Coaching: a new model for academic and career achievement, Medical Education Online, 21:1, 33480, DOI: 10.3402/meo.v21.33480

To link to this article: https://doi.org/10.3402/meo.v21.33480

© 2016 Nicole M. Deiorio et al.
Published online: 01 Dec 2016.
Submit your article to this journal
Article views: 3952
View related articles
View Crossmark data
Citing articles: 29 View citing articles
Coaching: a new model for academic and career achievement

Nicole M. Deiorio1*, Patricia A. Carney2, Leslie E. Kahl3, Erin M. Bonura3 and Amy Miller Juve4

1Department of Emergency Medicine, Oregon Health & Science University, Portland, OR, USA; 2Department of Family Medicine, Oregon Health & Science University, Portland, OR, USA; 3Department of Medicine, Oregon Health & Science University, Portland, OR, USA; 4Department of Anesthesiology and Perioperative Medicine, Oregon Health & Science University, Portland, OR, USA

Background: Individualized education is emerging as an innovative model for physician training. This requires faculty coaching to guide learners' achievements in academic performance, competency development, and career progression. In addition, coaching can foster self-reflection and self-monitoring using a data-guided approach to support lifelong learning.

Context: Coaching differs from mentoring or advising, and its application in medical education is novel. Because of this, definitions of the concept and the constructs of coaching as applied to medical education are needed to accurately assess the coaching relationship and coaching processes. These can then be linked to learner outcomes to inform how coaching serves as a modifier of academic and competency achievement and career satisfaction.

Innovation: We developed definitions and constructs for academic coaching in medical education based on review of existing education and non-education coaching literature. These constructs focus on 1) establishing relationship principles, 2) conducting learner assessments, 3) developing and implementing an action plan, and 4) assessing results and revising plans accordingly.

Implication: Coaching is emerging as an important construct in the context of medical education. This article lays the vital groundwork needed for evaluation of coaching programs aimed at producing outstanding physicians.

Keywords: formative feedback; coaching; education; medical; undergraduate; psychometrics; counseling; mentors; medical education; faculty development

*Correspondence to: Nicole Deiorio, Department of Emergency Medicine, Oregon Health & Science University, 2730 SW Moody Ave., CL5MD, Portland, OR 97201, Email: deiorion@ohsu.edu

Received: 13 September 2016; Revised: 28 October 2016; Accepted: 31 October 2016; Published: 1 December 2016

Individualized, competency-based, learner-driven education is emerging as an innovative model for physician training (1). Support for this model includes Knowles' framework of six principles of adult learning, which postulates that adults are internally motivated and self-directed, bring life experiences and knowledge to learning experiences, are typically goal and relevancy oriented, are practical, and like to be respected (2). Some medical schools are now undertaking individualized, student-driven approaches to training medical students. There is much to be learned about how to ensure the success of this approach (1).

For individualized training to produce competent physicians, faculty must foster students' lifelong learning skills, especially for those at the very beginning of their training. While mentoring and career advising are typically provided during undergraduate and graduate medical education, addressing learners' deficits usually occurs only when learners encounter academic difficulties. Fostering lifelong self-monitoring skills should start at entry into medical school and should focus on increasing students' abilities to 1) set learning goals that mitigate gaps in knowledge and skills, 2) seek opportunities to meet these goals, and 3) determine their readiness for advancement.

Coaching offers the opportunity to improve self-monitoring by fostering habits that will identify deficits and create goals to mitigate them early in the educational process.

Context: The constructs of coaching provide a better fit than mentoring or advising for individualized, learner-driven education. Coaching has been described in the business...
Since coaching as applied to medical education is novel, we need to define what coaching relationships and coaching processes look like, and how these differ from mentoring or advising. Developing these constructs will assist in identifying precise measures to determine the effectiveness of coaching and how the relationship and processes used interact to produce highly competent physicians. The purposes of this article are to 1) define the concept of coaching and create a conceptual framework applied to medical education and 2) identify and define constructs for measurement.

Innovation

Coaching as applied to medical education: creating a conceptual framework

In 2015–2016, we conducted a literature review on coaching across many domains. We found that literature on coaching in medical education is limited (4–7). We then searched domains in health professions and traditional higher education, sports, and business to identify applicable literature. Finally, we reviewed relevant literature on mentoring and advising in undergraduate medical education (9).

We found the business literature’s analyses of executive coaching provided the best application to ongoing coaching of medical learners (3). While mentoring is similar to coaching in that it involves establishing a relationship between a more experienced individual and a less experienced individual, mentoring is more directive, with the mentor intentionally transferring specific knowledge and skills and guiding the learner’s activities (3). Similarly, advising is described as a faculty-dominated process where a learner comes to a faculty member with specific questions and is given direction regarding his or her academic, social, or personal matters. The constructs that underlie advising and mentoring contrast distinctly with coaching, which is learner-driven (9).

Often, advisors and mentors are only provided with filtered performance information provided from their learners, and they may not be privy to all relevant information about a student. Unlike mentors or advisors, coaches do not offer advice or therapy to learners they are coaching. Rather, after reviewing objective data on performance, coaches employ methods that help the learners gain insights into their own assumptions, clarify meaning about relevant outcomes, and help identify specific actions needed to achieve a desired result (3). Such methods include asking reflective questions to help learners identify and develop personal values, preferences, and unique perspectives. These approaches can stimulate lifelong master adaptive learning skills (8).

With graduate medical education now focused on milestone achievement, and undergraduate medical education increasingly focused on competency development, coaching can help learners reflect on where their performance stands and how to improve. Eva and Regehr indicate that a learner’s ability to self-monitor via self-reflection, without input from others, is suboptimal (10, 11). These authors further posit that a failure exits in properly explicating the role of self-assessment in the self-regulating profession of medicine. Coaching can help develop skills that will empower students to become more reflective in developing self-monitoring and lifelong learning skills and to reach their full potential.

To summarize, the goal of coaching as applied in medical education is to support a developmental process whereby an individual learner meets regularly over time with a faculty coach to create goals, identify strategies to manage existing and potential challenges, improve academic performance, and further professional identity development toward reaching the learner’s highest potential.

We also created the following definitions:

An academic coach is a person assigned to facilitate learners achieving their fullest potential. Coaches work with learners by evaluating performance via review of objective assessments, assisting the learner to identify needs and create a plan to achieve these, and helping the learner to be accountable. Coaches help learners improve their own self-monitoring, while modeling the idea that coaching will likely benefit them throughout their career.

In the coaching relationship, a trusted bond is formed that proceeds longitudinally. The coaching relationship should be built on respect rather than on friendship and should include navigating both negative and positive reactions.

Identifying constructs: steps for effective coaching in medical education

Cummings and Worley suggest that effective coaching involves six steps, which we have condensed into four (3). We used these steps to identify and develop constructs for clarifying the coaching relationship and process. These categories can eventually lead to metrics by which coaching can be assessed. The steps are:

1. Establishing Principles of the Relationship – Initial coaching meetings should establish goals and parameters of the relationship, as well as ethical considerations, including confidentiality and boundary issues. The success of the relationship is important for the outcomes associated with the process to be effective.
2. **Conducting an Assessment** – This step involves both personal and systemic assessments. Personal assessments involve guiding the learner through frameworks to foster discovering the students’ learning or interpersonal management style. Systemic assessments include examining assessments provided by the learner’s program. Review of both types of assessments must lead to a feedback process to begin self-monitoring and encourage learners gaining reflective skills to help them set goals for their program.

3. **Developing and Implementing an Action Plan** – This step includes goal setting, determining new and revised actions that will lead to goal attainment, identifying learning opportunities that build knowledge and/or skills, or initiating actions that will demonstrate the learner’s progress toward competence. The learner must reflect on what is working and what is not working, relate these to learning style, and see new possibilities for action. Action plans should include specific methods, timelines, and milestones that allow both the coach and the learner to monitor progress. The learner designs the plan; the coach holds the learner accountable.

4. **Assessing the Results of Action Plans and Revising Accordingly**. At appropriate intervals, the coach and learner should review and evaluate how the student is progressing according to the action plan and whether features of the plan should be revised.

**Development of a coaching assessment instrument**

After considering both our definition of coaching applied to medical education and the steps identified by Cummings and Worley, we identified key features of coaching that should be measured. As presented in Table 1, these fall into three constructs: 1) the coaching relationship or the trust, boundaries, credibility, expectations, engagement, and interdependence that occur between the learner and the coach, 2) the coaching process from the perspective of

| Table 1. Working constructs of effective coaching |
|------------------------------------------------|
| Construct | Definitional concepts | Person of relevance |
|-----------|-----------------------|---------------------|
| Relationship | Trust – belief that a coach or student is reliable, good, honest, and effective | Both learners and coaches |
| | Boundaries – limits that define acceptable behavior | |
| | Credibility – quality or power of inspiring belief | |
| | Expectations – feeling or belief about how successful someone or something will be | |
| | Engagement – emotional involvement or commitment | |
| | Interdependence – state of reliance on and being responsible to each other | |
| The coaching process: faculty abilities | Appreciative listening – listening behavior where a listener seeks information that helps meet his or her needs and goals | Coaches |
| | Stimulating insight using inquiry – questioning in ways that help students develop the ability to perceive clearly | |
| | Ongoing informed self-assessment/self-monitoring – process of looking at oneself to identify central traits important to one’s identity and enhancement | |
| | Shared agenda | |
| | Goal setting – establishing specific, measurable, achievable, realistic, and time-targeted goals | |
| | Discerning problems and referring to resources | |
| The coaching process: learner abilities | Appreciative listening – listening behavior where a listener seeks information that helps meet his or her needs and goals | Students |
| | Reflection and processing – capacity to exercise introspection and willingness to learn more about themselves | |
| | Humility (humble acceptance) – act or posture of acceptance of one’s defects | |
| | Ongoing informed self-assessment/self-monitoring – behaving in a manner that is highly responsive to social cues and situational contexts | |
| | Goal setting – establishing specific, measurable, achievable, realistic, and time-targeted goals | |
| | Perceptions of needs – process by which individuals select, organize, and interpret information regarding what is essential to them | |
| | Identify problem, receive clarity, and solve own problems | |
the coaches, such as appreciative listening, stimulation of insight, ongoing self-assessment, goal setting, and discerning problems and resources to solve; and 3) the coaching process from the perspective of the learners, such as appreciative listing, reflection and processing, developing humility, ongoing self-assessment, perception of needs, and problem identification and resolution. Future research will involve exploratory principal component analysis on these items.

Development and implementation of a coaching program
With the above concepts in mind, we have created and implemented a coaching program for medical students. We hired a cadre of 31 coaches, each of whom worked with five assigned students from every year of our curriculum. Coaches are paid 0.1 FTE, which covers dedicated time for monthly student meetings as well as monthly faculty development on coaching. Coaches use individual meetings to help students set and achieve concrete goals. These goals, as well as academic performance and attainment of competencies, are tracked using an electronic portfolio specifically designed to support our curriculum’s individualized approach to medical education. Coaches are assessed by their students using an instrument comprising the constructs listed above as well as objective structured coaching examinations. Coaches also assess learners using these constructs.

Implications
As medical knowledge continues to expand, physicians must become skilled in identifying gaps in knowledge and skills and continually embark on cycles of self-improvement. Coaching is emerging as a potential approach to facilitate this process, and it represents a shift from traditional advising and mentoring. With these proposed constructs and definitions, further research should be conducted to examine how to measure the coaching relationship and process and its effects on learning outcomes, lifelong self-directed learning, and overall academic development at varying skill levels.

Acknowledgements
The authors would like to thank the American Medical Association for providing grant funding.

Conflict of interest and funding
This article was prepared with financial support from the American Medical Association as part of the Accelerating Change in Medical Education Initiative. The content reflects the views of the authors.

References
1. Skochelak SE, Stack SJ. Creating the medical schools of the future. Acad Med 2016. doi: 10.1097/ACM.0000000000001160. [Epub ahead of print].
2. Knowles MS. The modern practice of adult education: from pedagogy to andragogy. Cambridge: Prentice Hall Regents; 1970.
3. Cummings TG, Worley CG. Coaching and mentoring (in) Organizational development and change. Mason, OH: South-Western Cengage Learning; 2009.
4. Gawande A. Personal best. The New Yorker, 3 October 2011. Available from: http://www.newyorker.com/magazine/2011/10/03/personal-best [cited 11 July 2016].
5. Gazelle G, Liebschutz JM, Riess H. Physician burnout: coaching a way out. J Gen Intern Med 2015; 30: 508–13.
6. Gifford KA, Fall LH. Doctor coach: a deliberate practice approach to teaching and learning clinical skills. Acad Med 2014; 89: 272–6.
7. Sargeant J, Lockyer J, Mann K, Holmboe E, Silver I, Armson H, et al. Facilitated reflective performance feedback: developing an evidence- and theory-based model that builds relationship, explores reactions and content, and coaches for performance change (R2C2). Acad Med 2015; 90: 1698–706.
8. Schumacher DJ, Englander R, Carraccio C. Developing the master learner: applying learning theory to the learner, the teacher, and the learning environment. Acad Med 2013; 88: 1635–45.
9. Kuhn TL. Historical foundations of academic advising. In: Gordon VN, Habley WR, Grites TJ, eds. Academic advising: a comprehensive handbook. 5th ed. San Francisco, CA: Jossey-Bass; 2008, pp. 3–16.
10. Eva KW, Regehr G. Self-assessment in the health professions: a reformulation and research agenda. Acad Med 2005; 80: S46–54.
11. Eva KW, Regehr G. I’ll never play professional football’ and other fallacies of self-assessment. J Cont Educ Health Prof 2008; 28: 14–19.