Training medical students in health coaching skills

Margaret McNamara[1], Thomas Bodenheimer[1]

Corresponding author: Dr Thomas Bodenheimer tombodie3@gmail.com
Institution: 1. University of California, San Francisco
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Abstract

Introduction. Serious problems are apparent in physician-patient communication. Many patients leave physician encounters without understanding what the physician said. Many physicians tell patients how to change health-related behaviors rather than finding out what changes patients are willing and able to make.

Intervention. To address these problems, University of California, San Francisco instituted a curriculum innovation for first-year medical students: required training on health coaching with particular emphasis on 1) assisting patients in understanding their medical condition and management advice, and 2) engaging patients in making behavior-change action plans. The curriculum, using interactive role plays followed by peer and expert feedback, has been utilized yearly from 2013 to 2018 and continues into the future.

Evaluation. The authors evaluated the training through 1) on-line evaluations performed immediately after the training sessions, 2) Observed Structure Clinical Examination (OSCE) assessments of students’ health coaching skills, and 3) a survey of students 2 or 3 years after their training sessions. Overall, most students were able to demonstrate health coaching skills and felt that health coaching is valuable for patient care. Many students were using health coaching skills during their third and fourth year clinical clerkships.

Keywords: Undergraduate medical education; health coaching, patient-physician communication

Introduction

In 2013, the University of California, San Francisco (UCSF) School of Medicine instituted a curriculum innovation: required training in health coaching skills to address continued problems in physician-patient communication. From 2013 through 2018, all UCSF first year medical students learned the philosophy and techniques of health coaching through a workshop and skills-practice sessions. Health coach training became part of the new UCSF Bridges curriculum which engages students to master the skills they need to meet the challenges of 21st Century health care (Hauer et al., 2015). In this paper, we describe the problem this innovation is designed to address, evidence supporting health coaching’s capacity to solve the problem, details of the innovation, and student evaluations.
suggesting that the innovation may help solve the problem.

The purpose of the health coach training innovation was to address problems in physician-patient communication. Traditionally, clinicians tell patients how to improve their health and may label patients as non-adherent if they do not follow their advice. In the health coaching paradigm, clinicians ask patients about their goals and preferences, and discuss the extent to which patients are willing and able to incorporate evidence-based recommendations into their lives.

Despite the prevalence of communication training in medical education, traditional forms of clinician-patient interactions continue to dominate much of medical practice (Frosch et al., 2012). Patients report that many of their informational needs are unmet during encounters with their physicians (King and Hoppe, 2013). Many hospitalized patients do not understand their plan of care and physicians frequently overestimate patients' understanding of discharge plans (Bodenheimer, 2018). Clinicians often instruct patients how to change their health-related behaviors, rather than finding out what changes they are willing and able to consider. Clinicians then become frustrated when patients do not follow their advice (Gutnick et al., 2014).

Health coaching -- a paradigm shift in the clinician-patient relationship -- addresses these shortcomings. The philosophy of health coaching can be summed up in the adage: “Give a man a fish and you feed him for a day. Teach him how to fish and you feed him for a lifetime.” Coaching is teaching "how to fish" by assisting patients to gain the knowledge, skills, and confidence to become informed, active participants in their care (Ghorob, 2013).

Randomized controlled trials demonstrate that health coaching significantly improves outcomes in patients with chronic conditions (Thom et al., 2013; Willard-Grace et al., 2015).

The UCSF Center for Excellence in Primary Care has developed a health coaching curriculum with several modules: ask-tell-ask, setting the agenda, teach-back, know your numbers, medication adherence counseling, and behavior-change action plans (UCSF Center for Excellence in Primary Care 2014) Each of these techniques is supported by published evidence (Ghorob, 2013). Two of these skills are generally absent from medical student curricula: teach-back and behavior-change action plans (Hauer et al., 2012; Howard et al., 2013).

40-80% of medical information patients are told during office visits is forgotten immediately, and nearly half of information retained is incorrect. Teach-back involves asking patients to state the physician’s recommendations in their own words. Physicians might ask, “Just to be sure I was clear, how will you be taking your new medicine?” Teach-back is effective in improving patient understanding, adherence and outcomes (Bodenheimer, 2018) Teach-back is rarely taught to medical trainees and not commonly used by clinicians (Howard et al., 2013). In a national survey, only 23% of pediatricians reported using teach-back. Even when they report using teach-back, studies show that a minority of physicians actually do so when observed or videotaped (Bodenheimer, 2018).

Action planning for behavior-change is a technique to engage patients in discussions about lifestyle changes that they are willing and able to make (Gutnick et al., 2014; Ghorob, 2013). Action plans improve diabetes outcomes compared with traditional patient education (Ghorob, 2013). Patients set their own goals and agree on a concrete and achievable action plan that moves them toward their goals. Medical education inadequately prepares trainees to engage patients in behavior-change counseling (Hauer et al., 2012; Howard et al., 2013).

The intervention: health coach training for medical students

To address shortcomings in clinician-patient communication, health coaching skills were added to the required UCSF medical student curriculum as part of the introduction to clinical skills course. The Center for Excellence in
Primary Care health coaching curriculum has been used in hundreds of trainings for primary care team members, health professional students, and patients. We found no publications from other academic centers describing required health coach training for medical students; a few medical schools offer optional coach training.

The curriculum innovation started in 2013 with all first year UCSF medical students receiving 10 hours of health coach training utilizing the CEPC curriculum and trainers. The eight-hour skills-training workshop included brief presentations of coaching techniques and demonstration videos, followed by role-plays of health coaching techniques in rotating triads with one student as the patient, one as the health coach, and a third to provide feedback based on a checklist. The following week, students in small groups demonstrated their mastery of the coaching techniques in front of their peers, in role plays with CEPC coaches who portrayed a standardized patient. To set up the role plays, each student was given a scenario and asked to perform one of the health coaching techniques. For example, "a patient with diabetes has a HbA1c of 9; engage the patient in an action plan." Or, "you have prescribed metformin 500 mg twice daily; ask the patient to do teach-back." Students received feedback from their peers and from the standardized patient played by the trained coach.

A similar process that spanned six hours took place in 2014 with the next cohort of first year students. In each year since, sessions are modified based on student and trainer feedback. Students now view a 30-minute on-line independent learning module preceding the workshop so they arrive prepared to participate in role plays and receive feedback from the trained coach portraying the patient as well as from peers. The entire training now takes about five hours between preparation and classroom time.

**Evaluation**

First year students were asked to immediately evaluate the training using a 5-point Likert scale to agree or disagree with statements about health coaching, with 5 indicating strong agreement. The results of the evaluation for students trained in 2013 and 2014 are provided in Table 1. Overall, students judged the training as a valuable clinical skill when working with patients and voiced the intent to utilize health coaching with patients.

| **Table 1: Post-training student evaluations** |
|---------------------------------------------|
| 2013: 134 respondents; 2014: 148 respondents |
| Mean value on a 1(disagree) – 5 (agree) scale |
| This training increased my understanding of how health coaching differs from traditional patient advice | 4.01 | 4.09 |
| Overall, I believe that health coaching is a valuable additional clinical skill when working with patients | 4.43 | 4.53 |
| After completing this training I intend to practice health coaching in a clinical setting | 4.15 | 4.35 |

In their second year, students did a simulated case Observed Structure Clinical Examination (OSCE) to assess if they retained health coaching skills. The first cohort achieved 80% and the second cohort scored 77% competence in employing health coaching techniques to create an action plan a year after their training.

In spring 2017, third and fourth year UCSF medical students were asked to assess the lasting impact of the health coach training they had received in 2013 and 2014 as first year students in the previous curriculum. The purpose of the survey was not to provide a robust evaluation of the health coach training, but to provide UCSF curriculum leaders with information to help them decide whether to continue the training in the new UCSF School of Medicine.
"Bridges" curriculum (Hauer et al., 2015). The students were asked to complete a brief, voluntary evaluation they received via email through the on-line E-Value system, using the same 5-point Likert Scale. Answers were tabulated and a mean value on the 1-5 scale was computed for each statement (Table 2). 303 students from the two cohorts were surveyed and 118 responded, a 39% response rate. The survey was certified by the UCSF IRB as exempt.

For the skills most emphasized during training – teach-back and behavior-change action plans – the mean scores were 4.2 and 4.1. The mean scores for the statement "I believe that health coaching is a valuable additional clinical skill when working with patients" was 4.3.

Table 2: 2017 Survey of MS 3/4s on health coach training received in their first year (2013 and 2014)

| Mean value on a 1(disagree) – 5 (agree) scale |
|-----------------------------------------------|
| During my clinical rotations, I used health coaching techniques that I learned in first year of medical school | 3.9 |
| Ask-tell-ask | 3.9 |
| Setting the agenda | 4.2 |
| Medication reconciliation | 4.0 |
| Closing the loop | 4.2 |
| Action plans | 4.1 |
| Health coaching techniques are used by my clinical supervisors (attendings, residents) | 3.6 |
| Overall, I believe that health coaching is a valuable additional clinical skill when working with patients | 4.3 |

As part of the 2017 survey, students were asked to provide vignettes of how they felt about health coaching. Of the vignettes, about 75% were positive toward health coaching, 5% were negative, and 20% were non-committal. To give an impression of student attitudes and how students used health coaching in their clinical rotations, some examples are provided here.

Overall assessment of health coaching

- Thanks for teaching me these skills - definitely going to be using them in residency!
- I use it a lot more than I ever thought I would.
- Felt the session we had to attend on health coaching was not useful and a big waste of time
- Extremely valuable skill. Every med student should learn this
- I think our comfort with this skill makes us stand out compared with students at other schools. Keep it up!
- I have trouble finding a utility in health coaching.

Use of health coaching during clinical clerkships

- Patient in Ortho clinic has not yet started to exercise after his Achilles tear…We developed a specific action plan. Then we closed the loop and he told me what his plan was.
- Closing the loop was a great way to see if [hospitalized] patients understood discharge plans.
- I’ve used it most in the ED when discharging patients and using ask-tell-ask, med rec, and action planning for the next steps post-discharge
I have used health coaching almost every week since starting third year.

Opinions on when health coaching should be taught

- Wish we could have had a refresher course during 3rd year.
- Please maintain the health coaching session in early medical school.
- I would have loved if health coaching was integrated into the curriculum during all 4 years.

Barriers to using health coaching in patient care situations

- I think the techniques are useful, but found it difficult to use them when we had limited time with patients.
- When teaching health coaching it'd be useful to consider the time constraints and how health coaching can be incorporated into a busy clinic.

Observations on clinical faculty’s use of health coaching

- I rarely see residents take the time to do health coaching.
- Most of my preceptors did not use health coaching when working with me.

A limitation is the 2017 survey’s response rate of 39%. It is likely that students more positive toward health coaching may have preferentially answered the survey questions. Other limitations include that the students come from one medical school so that the results may not be generalizable to all medical student populations. There was no control group, nor did the study formally assess patient experience or clinical outcomes. Finally, we cannot conclude that the students using health coaching in their clinical rotations will continue to use these techniques throughout their medical careers.

Conclusion

To address shortcomings in clinician-patient communication, UCSF introduced a curricular innovation: required health coach skills training for medical students. The innovation has been well received by students and provides a way for early students to make meaningful contributions in the clinical setting by utilizing teach-back and engaging patients in behavior-change action plans. Many students reported that they value health coaching, utilize coaching skills during their clinical rotations, and intend to continue these techniques in future clinical roles.

Take Home Messages

- Health coaching is a group of skills that assist patients to gain the knowledge, skills, and confidence to become informed, active participants in their care.
- Medical students can learn health coaching skills in a brief, highly interactive, small group sessions with a trained health coach as teacher.
- Many medical students appreciate the health coach training and are using their coaching skills during patient encounters 2 – 3 years after the training sessions.

Notes On Contributors

Dr. McNamara is Professor of Pediatrics at University of California San Francisco School of Medicine. She introduced the health coaching skills curriculum in the clinical skills course for which she serves as Site Director.
Dr. Bodenheimer is Professor Emeritus, Department of Family and Community Medicine, University of California, San Francisco. He is lead author of the Center for Excellence in Primary Care health coach curriculum.

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**Appendices**

None.

** Declarations**

*The author has declared that there are no conflicts of interest.*

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** Ethics Statement**

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