# Catalyst for Change: A Grassroots Implementation of a Residency Communication Curriculum and Resulting Culture Change

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**Abstract:** *Issue:* Effective physician-patient communication is essential to end-of-life care. The teaching approach of end-of-life care communication skills has evolved over decades, from an apprenticeship model to coached practice. With this evolution of practice and teaching, also comes a continuously evolving culture that often carries remnants of prior practices. Learning complex communication skills requires a curriculum of coached practice that may be challenging to implement in settings where apprenticeship models prevail.

*Evidence:* In this article we explore structures of change as an approach to ongoing curriculum development and associated culture change: the 'path-goal theory' and the 'program development cycle.' We explore these two models through iterations of a communication skills curriculum for internal medicine residents to understand the factors that contributed to each iterative change as well as the resulting effect on the institutional culture. We also highlight the importance of a grassroots voice in identifying tensions between culture and behaviors. Through this reflection, we show that a step-wise approach leads to incremental practice and culture change through the incremental support of all parties involved (students, educators, institution).

*Implications:* We show that an educational intervention that challenges existing cultural norms requires stepwise implementation and adaptation as stakeholders and resources evolve. Notably, local institutional culture shapes institutional practices and, in turn, influences the teaching of communication skills. This article provides a reflection on how residency programs can find success in curricular implementation by being attuned to local resources, structure, and learner practices.

**Keywords**: Culture Change, Medical Education, Curriculum Design, Communication Skills.

## INTRODUCTION

Effective patient-physician communication is central to all aspects of patient care and arguably most important in sensitive conversations, such as end-of-life care discussions. When not conducted skillfully, end-of-life care conversations can cause added stress for the patient, family, and clinician during an already difficult time (Gerbrer *et al*., 2020). Despite the high level of sensitivity and high stakes nature of serious illness conversations, teaching these important communication skills in medical training is of often experiential (Harrington *et al*., 2020; Byrd *et al*., 2020; Farhan, 2018). The Accreditation Council for Graduate Medical Education (ACGME) has made communication proficiency a requirement for residency programs, but the methods for implementing and teaching communication curricula vary among programs and often require customization (Harrington *et al*., 2020; Byrd *et al*., 2020; Farhan, 2018; Woods *et al*., 2018).

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Graduate medical education (GME) has been rooted in the apprenticeship model for centuries, but in recent decades, it is evolving with the growing appreciation of affective abilities and focused communication skills (Linville & Bates, 2017; Back *et al*., 2007). Thus, medical schools and training programs are progressively augmenting the backbone of efficiency and procedural training with teaching of topics like end-of-life care conversations. In implementing these improved methods of teaching communication skills in medical settings where apprenticeship models persist, it is important to appreciate the culture of the educational environment. Knowing the limitations and barriers of the current environment allows for a proposed implementation to accommodate to the culture and eventually find a successful educational implementation, essentially a culture shift (Ramani *et al*., 2019).

Two important theories describe the central factors of a curricular intervention to consider in the stepwise evolution in this culture change. First, the path-goal theory suggests that leaders adapt their leadership

style to the relevant employee, task, and environmental characteristics in order to meet a particular goal (Robert, 1971). Similarly, organizational culture shift requires understanding new skills in the context of the target individuals and the organization, specifically, the learner, leaders, and environment. Each component works together to overcome cultural barriers, allowing institution stoultimately elevate the development of employees to meet the goals of all involved (Neville & Schneider, 2021; Reed *et al*, 2020; Kwong, 2017). Second, the program development cycle, outlined by Ramani *et al*. for continuing professional development, describes iterative program changes through steps of program design, implementation, and evaluation (Ramani *et al*., 2019). We will explore our curricular intervention through a combination of the path goal theory and the program development cycle in similar steps of 'plan,' 'do,' and 'review' (Figure **1**), by acknowledging the roles of leaders, participants, and the environment in the process of change (Ramani *et al*., 2019; Robert, 1971). In combining these two models, educational leaders can prioritize the needs of learners as well as adapt to the institutional environment (Farhan, 2018).

In this article, we explore the application of both theories in the creation and implementation of a communication skills curriculum for internal medicine residents. Similar recommendations are addressed by Back *et al*. to meet the needs of all those involved when building an institutional communication skill training program (Back *et al.*, 2019). In our case example, ultimate culture change began with a grassroots effort of a trainee that evolved over iterations to accommodate to, but also harness, the features of the local environment: resources, learners, and leadership. In this case, the leader will be the educator. The educator defines the goals and provides the participants (learners) the path to achieve a goal by effectively navigating the environment (Robert, 1971; Perez, 2021; Andrew & Henry, 1974). The curriculum iterations apply the program development cycle. The sequential changes in the approach to teaching and learning end-of-life communication skills are guided by path-goal theory. As we will show in our discussion of each iteration, the characteristics of the learners and educators can change based on one another's expectations, outcomes, and resources.

### The Case

Our case is the implementation of a communication skills curriculum for serious illness and end-of-life care discussions for internal medicine residents in an institution without a pre-existing communication curriculum at the graduate medical education level. First year residents had informally expressed discomfort and lack of preparedness in serious illness and end-of life communication, particularly in the setting of providing intensive care in a high-acuity quaternary care academic center. The environment of end-of-life care discussions had primarily focused on obtaining a CPR status and patient or family decisions for specific medical interventions or treatment plans. The learners knew the ultimate goal of conducting serious illness conversations but did not know of specific strategies to successfully and confidently complete that task. In this setting where the apprenticeship approach was not conveying learner skill or confidence, the path-goal theory suggests that the educational leadership, should provide a different style or approach to help the learners achieve their goal. Additionally, in this case, most educators, learners, and the institution were not familiar with communication skills as an objective skill set with established teaching methods. Each iteration of the curriculum was based on the needs of the learners', educators', and environmental characteristics at each moment in time, as defined by the Path Goal Theory, and evolved as experiences and resources evolved, as modeled by the professional development model (Figure **1**).

## CURRICULUM IMPLEMENTATION

### Iteration 1

In the first version of our curriculum, we sought to obtain learner buy-in that communication skills could be taught and improved upon by providing a foundation of communication skills frameworks. The existing GME curriculum focused on procedural training, and there was little familiarity with training methods in communication skills, such as role play. Role play is an effective methods of teaching difficult communication skills (Berkhof *et al*, 2011), but is rather high-stakes psychologically when being vulnerable in front of leaders and peers. In the initial training setting, learner and educator characteristics were not yet amenable to foster this important safe-learning environment. Learners reported discomfort and concerns of failing in front of peer residents, and educators familiar with the culture expressed concerns that learners would not participate. Additionally, educators did not have a shared teaching model to facilitate such encounters. Thus, introducing role play and standardized patients

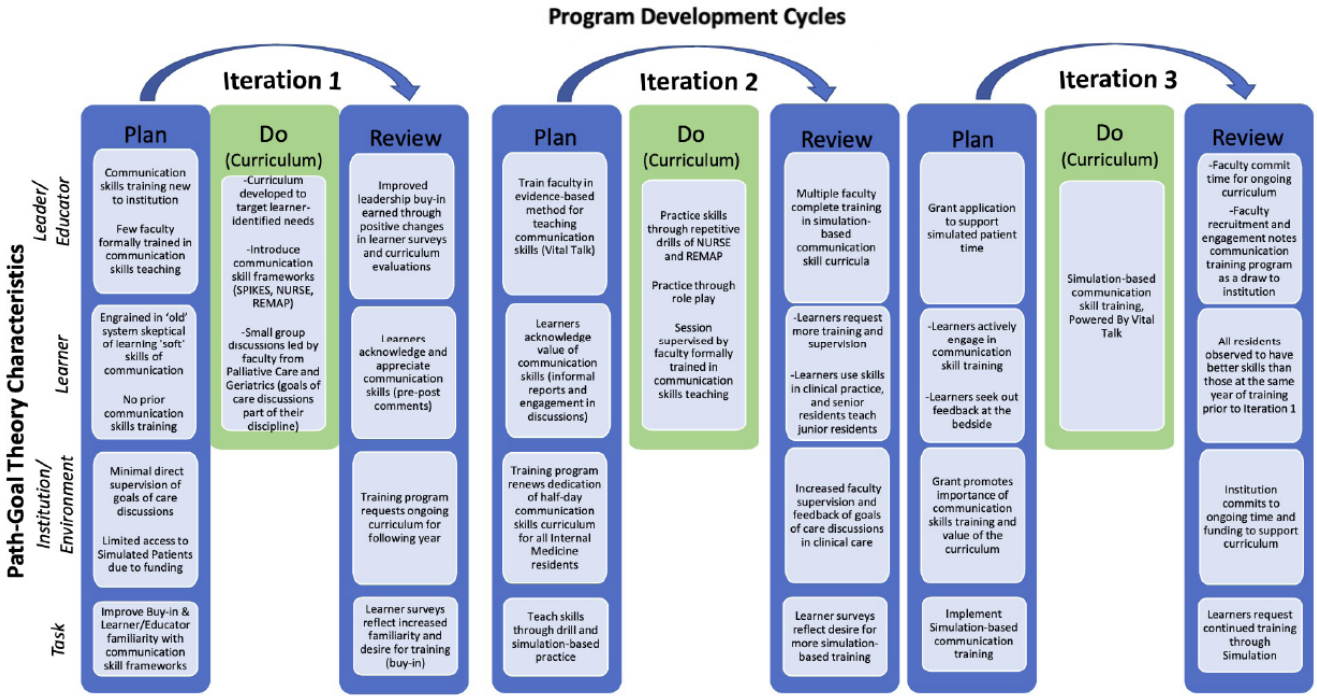


**Figure 1:** Curriculum Evolution Mapping through Models of Change.

Each stakeholder of the curricular intervention as defined by the path-goal theory is shown in rows through the light blue boxes. The change in each stakeholder with each step in the curricular iteration of the program development cycle is shown in columns through dark blue or green boxes.

without learner or educator buy-in risked losing our audience at the start. Given this starting point, our curricular goal was to first instill the importance of communication skills training and second to introduce basic concepts of those skills.

We designed our team with a focus on content as well as culture. The team was importantly led by a learner (DS) whose grassroots knowledge of the clinical culture and identification of the need for communication training sparked the evolution of communication skills training at our institution. The trainee connected with a faculty mentor who knew the institutional environment and helped navigate resources and leadership support. The final piece to this inaugural and integral team was a content expert (CS) who could adapt communication skill training within the existing environment.

The curriculum model began with a facilitated large group discussion on the difficulties and importance of end-of-life care discussions. Building upon these identified difficulties, the remainder of the sessions were conducted in small-group discussions on important components of end-of-life care discussions: summary statement, responding to emotions, and determining care values and preferences. After this initial curricular implementation, we found that trainees reported increased confidence in conducting end-of-life discussions and desired additional communication skill training (Sekar, 2021). Upon reflection of this program, previously resistant trainees now promoted communication skills training, and we were able to obtain institutional support of a communication skill program and to engage educators in formal training.

### Iteration 2

By combining the program development model and the path-goal theory, we re-evaluated the needs ofeach group characteristic. In the second iteration of the curriculum, learner characteristics evolved with increased desire for communication skill training. The path-goal theory describes that once the learners have an established affiliation, they need more interaction to perform the task (Robert, 1971; Andrew & Henry, 1974). As the learners were more receptive to new teaching methods, we focused on building basic communication skills through practice with repetitive drills and with clinicians playing simulated patients (Back *et al*, 2007). Simulation is a natural progression for educators in the curriculum, as it allows the educator to replicate the clinical environment in a protected and supportive space (Robert, 1971; Andrew

& Henry, 1974). Here, we adapted a supportive and nurturing leadership style to meet the task of teaching communication skills through drill practice and simulation.

As learner interest increased, so did educator and leadership interest, and we were able to engage more faculty with formal communication skills facilitator training. With this second iteration of the curriculum, we continued to see further learner interest in continuing training in communication skills. This interest also started to permeate into clinical practice, with learners conducting value-based end-of-life care discussions and seeking input from palliative care educators on their skills.

While institutional leadership was not yet ready to provide additional monetary support, we importantly obtained an institutional grant with plans to implement the ideal model of communication skills training to train and involve simulated patients. A curriculum based on simulated patients required institutional commitment to learner time as well as funding to support simulated patient expenses. The success of the first two iterations with learner interest and faculty interest encouraged the institution to dedicate ongoing curriculum time to communication skills training. This institutional support, along with prior successes, ultimately helped win grant support.

**Iteration 3**

Through obtaining support of learners and the institution, we were able to finally conduct the ideal of communication skills training using trained expert faculty facilitators and simulated patients as defined by the evidence-based Vital Talk program (Lakin *et al.*, 2016). Learners implemented their knowledge and early skills into real-time practice with faculty feedback. This iteration solidified trainee interest, faculty engagement for further training, and leadership commitment to continuing communication skills training throughout the institution.

Faculty facilitators observed that all levels of resident learners performed at a higher level of skills, not just those who had previously completed the curriculum. Faculty also observed that in clinical practice, this newly taught value-based approach to end-of-life discussions was reinforced from senior residents to junior residents, replacing the prior check-list focused approach to end-of-life discussion. This was attributed to a shift in culture as well as bedside teaching and feedback reportedly done by senior residents outside of a simulated environment.

Following implementation of the GME curriculum, the above model was also introduced in undergraduate medical education (UME) at our institution which further demonstrates a shift in institutional culture. By the fourth iteration of the GME communication skills training, recent graduates of our medical school arrived as first year residents with basic knowledge of skills learned through similar serious illness communication simulated encounters. Just as training in GME has spread and come full circle through UME, this training has now been sought out by faculty and advanced practice provider programs. In fact, the above efforts have created interest and support to continue to train all segments of our clinical environment.

**Lasting Change**

Lasting change depends on leaders and educators to navigate institutional culture by decreasing ambiguity of tasks and adapting leadership styles to help improve the abilities of learners. The program development model facilitates programmatic change through a goal-oriented but adaptive approach. Specifically, it highlights the need for actionable steps by identifying a plan and creating learning activities through practice, while reflecting on outcomes.

Throughout each iteration of this program development we found that identifying the characteristics of the path-goal theory solidified our understanding of how the culture progressively changed at our institution. In just a few short years, both educators and learners have provided informal feedback and observations of significantly changed attitudes towards healthcare communication and serious illness at our institution. There is now a shared language regarding goals of care discussions and healthcare communication. We have observed a clear shift in enhancing self-awareness as described by (Ramani *et al*., 2019) Learners are familiar with concrete communication skills and are frequently observed utilizing them in clinical situations, such as family meetings, as well as reinforcing feedback among peers. Learners who were introduced to communication skill frameworks during their first year have reported teaching this model as senior residents in an educator role. We have also seen a significant increase in learners seeking guidance and feedback on difficult conversations. When direct observation and

participation by faculty is not feasible, residents are now seeking out guidance to apply advanced skills independently. Additionally, learners participate in complex philosophical or hypothetical discussions regarding the use of advanced communication skills when they seek this feedback and guidance. As the teaching method during simulated encounters focuses on debriefing and real-time feedback, we have also observed a shift in bedside practice to reflect this skill. Learners are more readily prepared for debriefing after family meetings, able to identify a learning goal beforehand, followed by what went well and what they may try differently in another encounter (Back *et al*, 2010)

Another notable change is that first year residents, regardless of their prior medical school training, have demonstrated an enhanced familiarity with communication skills and interest in learning these skills. Given that the demographic and background of these learners has not shifted, one might deduce that the change reflects a shifted “hidden curriculum” now propagated by the evolved clinical practice of faculty and senior residents as a result of this curricular implementation. First year residents now observe their senior residents practicing these skills and thus identify them as important. We have seen this both in clinical practice but also during the simulation training. Regardless of year of training, residents are now more familiar with the skills, have more open attitudes towards healthcare communication, and are more willing to participate in that training. We also have found that the first-year residents can more easily identify and name skills being used by their educators and senior residents in clinical practice. There has been a clear reinforcement of behaviors and skills through this shift in culture. Overall, learners seem to have an increased appreciation for patient and family perspectives and willingness to conduct effective end of life conversations, as well as an increased interest in participating in, observing, and debriefing those discussions.

Additionally, faculty who were not involved in the training also seem to have undergone behavior and attitude changes, despite the intervention targeting only resident learners. While the majority of early adopting Faculty facilitators of this curriculum were in the section of Palliative Medicine, it was observed that an increased number of faculty of various specialties (including hematology oncology, pulmonary and critical care, and hospitalists) now recognize communication as a skill-based practice. Informal discussions amongst the Palliative Medicine faculty noted that subspecialty faculty engaged in more detailed discussions of values-based shared medical decision making which was taught in the curriculum and hypothesized this was through increased observation and discussion of these skills with resident trainees. We have even note dinstances in which faculty physicians have requested feedback on their own skills during shared family meetings.

Another clear indication of institutional change is the identification and outreach for additional specialized training. There has been increasing interest of specialty programs requesting formal communication skills training and curriculum for their trainees, including hematology/oncology, pulmonary and critical care, gastroenterology, cardiology and rheumatology fellowships.

### Lessons Learned

Our group has discovered that establishing a curriculum in a highly interested group as well as in a group that is indispensable to the institution will quickly build interest and demand elsewhere. Additionally, we have found that simulation training, while crucial to developing the basic skills, requires real-world continued practice and supervision for reinforcing skills to advance learner’s autonomy in these conversations. Thus, a next phase of our program will be to focus on faculty development to build a network of educators who will receive training in both the communication skills as well as how to provide standardized observation and feedback to trainees. We have also found that such a curriculum is incredibly time intensive and requires institutional support both in the form of time and financial resources. Through reflection of the path-goal theory and the program development cycle approach in our experience, review and assessment of a task through the multiple perspectives of the learners, educators, and other stake holders are essential to the achievement of a curricular implementation.

## CONCLUSION

This case provides a conceptual framework for developing a communication skills training program and a model for shifting culture to support a broader influence on the learning environment. In our example, educators utilized both path-goal theory and program development cycles to meet the needs of the moment and look ahead to the end goal of incorporation of a validated longitudinal communication skills curriculum

by learners, educators, and an organization. To reach this goal as described by path-goal theory, we needed to consider the initial characteristics of the culture, environment, organization, stakeholders, learners and educators. Through application of the program development cycles, the communication training program was iteratively customized to the needs of the learners and availability of environmental resources through process reflection. Over iterations of this simulation-based curriculum, both educators and learners progressively reinforced communication skills in the clinical setting. We emphasize the need for a thoughtful, step-wise approach in recruiting support from learners, educators, and the institution to achieve the ultimate goal of behavioral and institutional culture change.

## DISCLOSURE STATEMENT

The authors report no conflicts of interest.

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