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A Curriculum to Foster Resident Resilience

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Abstract

Introduction: Burnout in medical trainees is extensive and a critical issue. It is associated with increased rates of depression, suicide, and poor clinical performance. Enhancing resilience, the ability to adapt well in the face of adversity, is a potential tool to mitigate burnout and improve professional development. Our resilience curriculum consists of novel skill-building workshops to help programs cultivate resilience in their trainees. **Methods:** This curriculum serves as an introduction for medical trainees and educators to the concept of resilience and teaches skills to help cultivate resilience and promote wellness. The sessions allow for identification of and reflection on stressful clinical events and consist of resilience-enhancing exercises, including setting realistic goals, managing expectations, letting go after medical errors, and finding gratitude. Through small-group reflection, the sessions also help participants discuss challenges with peers. This curriculum is intended for use with intern, junior, and/or senior residents and allows residency programs to address Accreditation Council for Graduate Medical Education milestones in the areas of professionalism, identification of system error, and advocating for system improvement. Materials include an introduction to resilience topics, guidelines for small-group facilitators, a learner precurriculum survey, and an evaluation form. **Results:** Sessions were well received by interns. The majority of attendees felt more comfortable talking about burnout and medical errors and learned new ways to approach challenges. **Discussion:** This resilience curriculum has been continued in the intern curriculum and has been presented at a national conference. Resilience training is an effective educational intervention to help trainees manage feelings of distress during residency training.

Keywords

Medical Errors, Psychological, Residency Training, Burnout, Professional, Resilience

Appendices

- A. Instructions for Facilitators .pdf
- B. Connor-Davidson Resilience Scale Access Information.pdf
- C. Precurriculum Survey.pdf
- D. Skill-Building Exercise Worksheets.pdf
- E. Workshop Evaluation.pdf
- F. Resilience Pocket Card.pdf

All appendices are peer reviewed as integral parts of the Original Publication.

Educational Objectives

The goals of this curriculum include the following:

1. Define resilience and identify how it applies to adversities encountered during medical training.
2. Identify behaviors that promote resilience, including managing expectations, setting realistic goals, processing and letting go following medical errors, and finding gratitude.
3. Enhance resilience in medical trainees by teaching focused skill-building exercises to promote resilience behaviors.
4. Promote reflection on adversities, stressful situations, and medical errors.
5. Define a goal and an expectation, and identify the difference between them.
6. Identify how to deconstruct goals into realistic, measurable portions and how to consciously set expectations.
7. Identify healthy coping strategies after medical errors through active reflection that removes the "I" narrative.
8. Identify gratitude in daily life through the creation of gratitude lists and the practice of mental subtraction.
9. Provide a forum for medical trainees to discuss medical errors and adversities with their peers and faculty.

Introduction

Burnout in medical trainees is extensive and a critical issue. It is associated with increased rates of depression, suicide, and poor clinical performance.¹⁻⁵ Increased depressive symptoms amongst medical trainees are associated with factors encountered during residency, including perceived medical errors, long work hours, and stressful life events.^{1,6} Despite increasing attention to physician burnout, few curricula focus on developing resilience skills for trainees.

Resilience has been identified as a tool to improve the quality of care, the sustainability of the physician workforce, and the sense of community among physicians.⁷ Research in the fields of cognitive and positive psychology have identified a relationship between resilience skill-building and reduction in measures of distress.⁸ Recently, there has been a call by medical educators to increase this type of resilience training in residency programs.^{7,8} The Accreditation Council for Graduate Medical Education's Clinical Learning Environment Review Program has tasked residency programs with educating residents regarding burnout prevention.⁸ Jennings and Slavin suggest that residency programs address this goal by implementing effective wellness initiatives that include training in resilience skill-building.⁸

This workshop series consists of three individual small-group sessions. Each session takes approximately 60 minutes, with a 10-minute introduction and review of the prior workshop, 15-minute skill-building lesson, 10-minute practical application, 15- to 20-minute small-group discussion and brainstorming, and 5-minute wrap-up. The sessions are designed for small groups of 10-12 participants.

This curriculum was developed based on a precurriculum needs-assessment survey and focus group responses from our interns. The cases used in the skill-building exercises are based off of clinical events reported by trainees during small-group sessions led by us. The small-group sessions and skill-building exercises were developed based on existing literature on resilience and positive psychology, review of resilience skill-building methods for undergraduate students designed by a colleague at our institution (Dr. Alex Lickerman), and stressful aspects of our clinical learning environment identified by our interns during the annual program retreat.⁹ Content areas were selected based upon four of the six virtues identified within positive psychology: courage, humanity, temperance, and transcendence. The first session, on setting realistic goals and expectations, was tied to the virtue of courage. Session Two, on managing stressful clinical events, was tied to the virtue of temperance. The final session, on gaining gratitude, was tied to the virtues of humanity and transcendence. Furthermore, each skill-building exercise was designed to promote specific character strengths within each of these virtues, specifically, persistence and zest, social intelligence, forgiveness, hope, and gratitude.^{10,11} The character strengths of hope, gratitude, and zest have been associated with improved life satisfaction, and exercises that promote these strengths have shown short-term reductions in depressive symptoms.^{10,11} Research in the field of positive psychology suggests that having a team-based approach led by a resilience coach may lead to longer-term improvements.^{11,12} For this reason, each of the small-group sessions was led by one facilitator familiar with the fields of positive psychology and resilience. The curriculum has been continued since its pilot year.

This workshop series is intended as an independent curriculum or as an addition to an already existing wellness curriculum or program. The facilitator role is intended for a core member of the residency program, including chief resident, core faculty, or associate program directors.

Methods

The target audience for this curriculum includes beginner, intermediate, and advanced learners. Prior exposure to clinical medicine and issues of adverse patient events and medical errors is recommended for the workshop sessions but is not mandatory.

Prior to initiating this workshop series, it is important to identify program support, including protected space for small-group sessions, existing framework for referral to program leadership, and resident counseling resources. It is also important to identify error-reporting mechanisms in your institution.

Given the personal nature of these workshops, they are best delivered in small-group settings. If possible, securing a space separate from the standard clinical setting is preferred. It is important to remind trainees to keep what is shared during sessions confidential. If getting participants to share is problematic, have participants discuss topics in pairs or small groups.

This workshop series was delivered during dedicated lecture time in the residency program's outpatient block schedule. All sessions consisted of eight to 10 residents and took place in a small lecture hall. Each session was allotted 60 minutes, with a 10-minute introduction, 40-minute small-group skill-building exercise, and 10-minute wrap-up.

Prior to the first workshop, if you wish to measure and trend trainee resilience scores, you may prepare copies of Connor-Davidson Resilience Scales (optional).¹³ Appendix B has information on how to access these optional scales. If you choose to use a PowerPoint slide show to help shape small-group sessions, ensure all audiovisual equipment in the room has projection capabilities. Prior to conducting the small-group sessions, review the instructions for facilitators (Appendix A). At the start of the first small group, distribute the precurriculum survey (Appendix C) to learners to assess their engagement and past experience with resilience training, medical errors, and stress and burnout. During the three workshop sessions, use the skill-building exercise worksheets (Appendix D) to introduce learners to the intended resilience topic and skill-building exercise for each workshop. At the conclusion of the third and final workshop, distribute the workshop evaluation (Appendix E) and resilience pocket card (Appendix F). Encourage learners to use this pocket card to practice resilience exercises after the conclusion of the workshop series.

The first session focuses on the definition of resilience and the practice of setting realistic expectations; the second session focuses on identification, processing, and moving on following stressful clinical events; and the third session focuses on finding sources of gratitude. These session topics were chosen based on our experience with resilience skill-building areas that apply to residency training and existing literature.⁹ The sessions may be delivered in a variety of orders but should always begin with the introduction to the concept of resilience.

- Distribute Connor-Davidson Resilience Scales to participants before starting the first small-group session (note that this is an optional step). Provide background on the creation and validation of the scoring tool.
  - If allowing trainees to score their own scales, provide handout with scoring instructions.
  - After scoring is complete, provide general information on the variety of resilience scores.
  - Complete this step at the beginning of the first small-group session; it is an optional component of the second and third small-group sessions if trending of scores is desired.
- Session One: Introduction to Resilience and Setting Realistic Expectations.
  - Provide introduction to the concept of resilience.
  - Define and give examples of resilience and how it plays a role in resident well-being.
  - Ask participants to brainstorm categories of stressful clinical events. Have participants share these categories with the group.
  - Provide participants with the potential impact of these events on personal, patient, and system well-being.
  - Introduce the first skill-building exercise, on creating realistic expectations, using the Session One skill guide.
  - Please note that depending on your institution's experience with resilience training, this session may be delivered in one hour-long workshop or split into two separate hour-long workshops as Lesson 1 and Lesson 2.
- Session Two: Identifying and Processing Stressful Clinical Events.
  - Review concepts discussed in Session One. Allow participants to share their personal experiences in applying skills learned from Session One during the time between workshop sessions.
  - Introduce the second skill-building exercise, on identifying and processing stressful events,

using the Session Two skill guide. It is helpful during this session to have a facilitator who has personal experience in direct patient care and can initiate the small-group discussion if participants are reluctant to share their own experiences.

- At the conclusion of this session, it is helpful to familiarize participants with avenues of reporting personal distress and burnout available at your institution, as well as anonymous reporting options for adverse events.
- Session Three: Gaining Gratitude.
  - Review concepts discussed in Session Two. Allow participants to share their personal experience in applying the skills learned from Session Two.
  - Introduce the third skill-building exercise, on gaining gratitude, using the Session Three skill guide.¹⁴⁻¹⁶
  - At the conclusion of this session, provide participants with the resilience pocket card, and summarize the skills learned throughout the workshop series.
  - Distribute workshop evaluations to participants. Feedback can be used to restructure future workshops. In addition, you may choose to redistribute the Connor-Davidson Resilience Scales at the conclusion of the series and have participants analyze their scores compared to initiation of the series (optional).

This workshop series does not allow trainees to demonstrate competency in any of the skill-building exercises. Participation is voluntary, and any utilization of these skills outside of the workshop setting is not assessed. In addition, these workshops allow identification of areas where support is needed within training programs, but without close communication with program leadership, there is not a standard process for quality improvement within the workshops.

Results

This workshop series has been delivered in full during the 2014-2015 academic year at the University of Chicago with 36 interns (participation rate: 85.7%; 36 out of 42). It is underway during the 2015-2016 academic year with a new class of approximately 35 interns. Anonymous curriculum evaluation surveys were distributed to all interns completing the workshop sessions. This evaluation found that sessions were well received by interns and that participants were very engaged in sessions. The sessions were found to be valuable by interns, and most interns encouraged the sessions to continue in the next academic year (69%; 25 out of 36). Interns reported that workshop sessions provided an open forum for reflection and discussion of setbacks with colleagues.

In addition, an abbreviated workshop that focused on skill-building exercises was presented to 51 medical educators at one national conference. Comments from participants included the following: “Extremely well prepared and executed,” “fostered interesting discussion and more importantly concrete skills to bring to each institution,” “great practical suggestions,” “outstanding—good small group discussions—and gave practical pointers,” and “walked away with useful tools.”

Discussion

This resilience curriculum, composed of small-group skill-building sessions, was well received, was valuable, and provided trainees with additional support systems that may not have been obvious at the start of their residency training. The curriculum addresses a growing concern with burnout in medical trainees and provides a practical approach to helping trainees learn resilience skills to manage stress. These sessions could be adapted across the medical education continuum to include undergraduate, graduate, and continuing medical education.

A strength of this curriculum is the focus on practical skills to help anticipate and mitigate distress. In addition, this workshop series allows trainees to create a shared experience and fosters an environment of peer support within a training program. It is easily implemented using standard residency program infrastructure (teaching time, space, faculty) and does not require additional funding. Since the sessions are highly interactive, they adapt to fit any type of training program or group.

A limitation of this curriculum is its use as a brief time-limited intervention that is not longitudinal. More in-depth practice and training may be required to reliably impact levels of resilience. Furthermore, while resilience is a promising area for improving resident wellness, it is unlikely to mitigate burnout in isolation. A multipronged approach is necessary to address other aspects of the clinical learning environment that impact trainee burnout, including overall workload, control over work schedule, and access to mental health and stress-relief resources. Future studies should assess the impact of demonstrated mastery in resiliency skills on levels of stress and burnout, as well as evaluate the impact of longitudinal integration of resilience training across the medical education continuum (from undergraduate through continuing medical education).

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Prior Presentations

An educational curriculum overview was presented at the Association of Program Directors in Internal Medicine (APDIM) Fall Meeting, October 8-10, 2015, in Atlanta, GA.

Ethical Approval

This publication contains data obtained from human subjects and received ethical approval.

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