

Original Publication

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# Building Team Resilience and Debriefing After Difficult Clinical Events: A Resilience Curriculum for Team Leaders

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## Abstract

**Introduction:** Burnout is prevalent among medical trainees and faculty. Resilience, the ability to cope well with stress and thrive during challenges, has been a focus of initiatives to combat burnout. However, curricula teaching resilience skills are needed. Since residents experience challenging and stressful clinical events often, and would like to discuss these events with their teams, resilience skills may help trainees cope after such events. Additionally, resilience skills may help trainees address other challenges they face as team leaders. Leadership training is an important component of physician professional development. **Methods:** This advanced resilience training curriculum consists of two interactive workshops that include didactics, skills practice, and reflection. The first workshop focuses on applying resilience skills to team leadership, while the second focuses on structured team debriefing after difficult clinical events. This curriculum is intended for learners who are health care team leaders, such as senior residents, fellows, or faculty. It may be used with learners who have completed introductory resilience training or with those without prior training. **Results:** The curriculum was rated highly by senior residents, who reported feeling more comfortable leading their teams after difficult clinical events and talking about these events following this curriculum. The majority of residents thought the workshops should be continued. **Discussion:** This novel curriculum teaches learners to apply resilience skills during team leadership and difficult clinical scenarios. It was well received by senior residents and may be used with a variety of learners across health professions and training levels.

## Keywords

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

## Appendices

- A. Accessing the Connor-Davidson Resilience Scale .docx
- B. Resilience Presurvey.docx
- C. Resilience Postsurvey.docx
- D. Resilience Pocket Card .docx
- E. Workshop Cases.docx
- F. Resilience Workshop 1 - Team Building.pptx
- G. Resilience Workshop 2 - Difficult Events.pptx
- H. Resilience Instructor Guide .docx
- I. Lesson Plans.docx

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

## Educational Objectives

By the end of this curriculum, learners will be able to:

1. Identify traits of effective leaders and successful leadership strategies.
2. Practice responding to challenging leadership scenarios.
3. Reflect upon their own leadership skills and set goals for improvement.
4. Identify strategies to manage team expectations and set realistic goals.
5. Recognize the importance of debriefing after difficult clinical events.
6. Reflect on individual experiences with difficult clinical events.
7. Identify healthy and unhealthy coping behaviors, strategies for supporting colleagues, and strategies for disclosure after difficult clinical events.
8. Practice leading team-based debriefing after difficult clinical events.
9. Discuss leadership challenges and difficult clinical events with peers and colleagues.

## Introduction

Burnout is characterized by emotional exhaustion, depersonalization, and a decreased sense of accomplishment.<sup>1</sup> Prior studies have shown the prevalence of burnout to be high among medical trainees and practicing physicians.<sup>2-5</sup> This widespread problem with burnout has led to prevention efforts, which

have utilized traditional Balint groups, mindfulness-based stress reduction programs, and cognitive behavioral stress prevention.<sup>6</sup> A recent meta-analysis showed that interventions for physicians were associated with small reductions in burnout.<sup>7</sup> The prevalence of burnout has also led to calls for further research in this area and efforts to improve the residency learning environment to enhance wellness.<sup>8</sup>

Cultivating resilience is one promising method of combating burnout.<sup>9</sup> Resilience is the ability to adapt to challenges well, and it is necessary to understand the determinants of resilience to be able to enhance it.<sup>10</sup> There are practices, routines, and useful attitudes that have been identified as fostering resilience.<sup>6</sup> Training to enhance resilience may teach specific skills or strategies such as self-compassion, reframing, self-awareness, and self-care.<sup>11</sup> An effort to enhance resilience among family medicine residents showed excellent acceptance by trainees and increased self-care activities.<sup>12</sup> Furthermore, our prior work on an introductory resilience curriculum for internal medicine interns was well received and found to be valuable to learners.<sup>13</sup> This prior introductory resilience curriculum focused on teaching skills such as setting goals and managing expectations, letting go after medical errors, and finding gratitude. The current curriculum aims to build on that prior work by fostering development of workshops that teach the application of these skills to clinical practice, particularly for more senior team members, who may face different challenges and potential sources of burnout compared to more junior team members who were the focus of our prior work.

A needs assessment of senior residents at our institution showed that they experienced difficult clinical events frequently, found these events stressful, and would prefer to discuss them with their teams. They also indicated that they would like more training to help their teams cope after these events. Examples of such events include medical errors, unanticipated patient deaths, difficult patient or professional interactions, and other stressful events that occur as part of work in health care.<sup>14</sup> The time following these events' occurrence may be important for utilizing resilience skills, which could allow for the adoption of healthier coping behaviors and more productive responses to such events.<sup>15,16</sup> One strategy following the occurrence of these difficult clinical events is to conduct a structured debriefing, which has been used among teams of workers in other contexts. For example, among emergency workers, group critical incident stress debriefing was shown to be associated with greater postintervention quality of life.<sup>17</sup>

Furthermore, although physicians often function as team leaders during these difficult events, there is a paucity of training on clinical leadership during residency. Leadership development training in health care can improve frontline clinical leadership, which can lead to improved clinical outcomes and satisfaction for patients and providers.<sup>18</sup> Such leadership skills can be taught, similar to other skills in medicine, which has led to efforts to make clinical leadership an explicit focus of residency training.<sup>18</sup> Training may focus on emotional intelligence as a key aspect of leadership and teach skills such as self-awareness, self-regulation, self-motivation, social awareness, and social skills.<sup>19</sup> Prior work has shown that leadership training may be successful in improving knowledge of teamwork principles and changing attitudes toward key teamwork behaviors.<sup>20</sup> Courses have also been developed to help residents prepare for their new teaching and leadership roles.<sup>21</sup> However, a recent systematic review of leadership training in health care action teams showed great variability among studies, suggesting that much work remains to be done in this area.<sup>22</sup>

## Methods

The target audience includes learners who work as part of a health care team and play some leadership role on that team, (e.g., a resident or fellow overseeing more junior trainees or a faculty member or attending physician overseeing trainees or staff). The curriculum may be used with learners who have already completed an introductory-level resilience curriculum and who have previously been exposed to resilience skills, including setting goals and expectations, identifying and processing stressful clinical events, gaining gratitude, and letting go.<sup>13</sup> It may also be used with learners who have had no exposure to prior resilience training.

The curriculum is split into two workshops. The first workshop focuses on the application of resilience skills to leadership, including effective leadership qualities and skills, how to apply resilience concepts to leadership situations, and opportunities for practicing leadership strategies and skills. The second workshop focuses on the application of resilience skills to difficult clinical events. It provides a framework for applying resilience concepts to difficult clinical events, introduces a tool for team-based debriefing after difficult clinical events occur, and allows learners the opportunity to practice this debriefing. Each workshop is 1 hour in length to allow adequate time for discussion. These two workshops are best held in small groups of no more than 10-15 learners and in a small conference room with a table where learners can face each other to facilitate discussion. Standard audiovisual equipment with projection capabilities should be available. A space removed from the clinical environment is best in order to minimize interruptions and maximize privacy. Our workshops were held during time regularly scheduled for residency small-group didactic sessions, but they could be offered during any open 1-hour block. The two workshops were held approximately 6 weeks apart for each group of our learners, due to constraints of our schedule blocks. We recommend that at a minimum, the sessions be scheduled on different days to give adequate time for reflection, although they may be held closer together than 6 weeks if so desired. The workshops cover separate topics and thus may also be used independently of each other.

In preparation for the first workshop, prepare copies of the Connor-Davidson Resilience Scale<sup>23</sup> (Appendix A) if you wish to measure trainee resilience scores, as well as copies of the presurvey (Appendix B) if you plan to ask participants about their experience with stress, burnout, and difficult clinical events. Print copies of the workshop evaluation (Appendix C) if you intend to distribute it afterwards. Also print copies of the resident resilience pocket card (Appendix D) for your learners, as well as copies of the scenarios for each workshop (Appendix E). We also recommend updating the slide in the PowerPoint on resources for the second workshop (Appendix G). We have included some resources there that may be pertinent to academic medical centers but suggest tailoring it to a specific institution or group.

Prior to this workshop series, it is important to identify program support as well as an adequate space for the sessions. It is also important to know the existing mechanism for referral to program leadership, as well as any counseling resources available to residents. Finally, identify error-reporting systems already in place in your institution.

You should also identify facilitators for the workshops. Facilitators should be at or above the learners' level of training. In advance of the workshops, distribute copies of the workshop PowerPoint presentations (Appendices F & G) to the facilitators, along with a copy of the instructor's guide (Appendix H). Also provide the facilitators with the lesson plans document (Appendix I), which is designed to be an adjunct to the instructor's guide and contains an overview of key components of the lessons in a summarized format. These materials should be sent to facilitators at least 2 weeks in advance to give them time to become familiar with the material and ask any questions they may have. If facilitators have not previously completed or taught the introductory-level resilience workshop series, you may also give them that information for further supplemental reading.<sup>13</sup>

Facilitators should start the first workshop by distributing the Connor-Davidson scale and presurvey to learners (optional). The Connor-Davidson scale is a validated measure of resilience that can be used for curriculum assessment (pre- and postcurriculum). The survey question on burnout is a nonproprietary single-item burnout measure used in the Physician Work Life Study and validated against the Maslach Burnout Inventory among physicians.<sup>24</sup> The remaining questions on the pre- and postsurvey were developed based on our own experience as clinicians and educators. Taken together, the Connor-Davidson scale and presurvey can be used precurriculum to identify current learner needs and baseline resilience. The Connor-Davidson scale and postsurvey can be used postcurriculum as a tool for curricular evaluation.

Before both workshops, the facilitators should introduce themselves and the workshop, and tell learners that everything discussed in the workshop will be confidential. They should then ask learners to turn off cell phones and place pagers on vibrate in order to minimize interruptions. Facilitators can start the PowerPoint for the workshop and follow the instructor's guide (Appendix H). If using the workshop evaluation, we recommend distributing it at least 6 weeks after the workshops to ensure adequate time has passed for learners to utilize some of the skills taught during the workshops.

#### Workshop Administration Tips for Success

We have successfully deployed this curriculum for 1 year and are currently in the midst of a second year of implementation. From our experience facilitating these workshops as well as from learner feedback, we have learned several tips for deploying the curriculum:

For the first workshop, we found the ideal time breakdown is as follows:

- Review resilience concepts (5 minutes).
- Brainstorm traits of effective leaders (5 minutes).
- Use PowerPoint to discuss common skills of effective leaders and leadership, and ask participants to identify an area they need to work on as a health care team leader (10 minutes).
- Brainstorm about a challenging moment leading a team (7 minutes).
- Discuss the 4 S's of resiliency (3 minutes).
- Practice leadership strategies in small groups (10 minutes).
- Discuss leadership strategies in the large group (12 minutes).
- Discuss keys for residents as team leaders (5 minutes).
- Have participants set a leadership goal (3 minutes).

In brainstorming effective traits of leaders during the first workshop, it is helpful to start by giving examples of effective leaders that the majority of learners will know. Encourage residents to share qualities of effective leaders they have witnessed, without using names if they would prefer, so as to make them feel more comfortable sharing.

Further, while brainstorming during the first workshop, have the residents brainstorm about challenging moments leading a team in pairs. Then, ask the pairs to volunteer what they talked about—sticking to major themes if they do not feel comfortable sharing with the larger group the actual examples that they discussed. Finally, when practicing leadership strategies, it is helpful to give each pair a different case to broaden the scope of the discussion.

For the second workshop, the time breakdown we used is as follows:

- Review of resilience concepts and introduction to the history of resilience and debriefing (4 minutes).
- Reflection on a difficult clinical event (2 minutes).
- Revisiting the 4 S's, strategies for coping and supporting each other, disclosure, and introducing a framework for team-based reflection (8 minutes).
- Discussing a case (12 minutes).
- Discussing scenarios involving difficult clinical events (12 minutes).
- Introducing debriefing tool and having participants practice debriefing in small groups (12 minutes).
- Large Group Discussion (8 minutes).
- Introducing resources for help after difficult events (2 minutes).

The pocket cards (Appendix D) can be passed out at the start of the second workshop for learners to refer to during the workshop while discussing scenarios and to take home for later reference. The pocket card entitled 5 A's of Resilient Team Reflection can be referred to during the section on discussing scenarios of

difficult clinical events. The pocket card entitled Resilient Team D-Brief can be referred to during the section on the debriefing tool and the practice debriefing section. We created these pocket cards based on background obtained from current literature.<sup>15</sup>

For all of the discussion segments in the second workshop—discussing a case and then discussing scenarios of difficult clinical events—the learners should first discuss in pairs for approximately half of the allotted time and then reconvene as a large group to have the pairs share their discussions with the larger group. It helps to have each pair discuss a different difficult clinical event; the facilitator can help elicit major themes that come up in discussion.

## Results

We have successfully deployed this curriculum during the 2015-2016 academic year at the University of Chicago with 41 PGY-2 and PGY-3 residents (participation rate: 66.1%). We are currently in the midst of a second year of implementation during the 2016-2017 academic year. In our experience, these workshops have been rated highly by our residents. Thirty-four residents completed the postcurriculum survey in 2015-2016. Of our learners who completed the postcurriculum evaluation, 85.3% thought the sessions should be continued with the residents. Following the sessions, the majority of our learners reported they felt more comfortable leading their teams after difficult clinical events and more comfortable talking about difficult clinical events with their peers.

The learners also had many positive qualitative comments about the sessions. In response to the question “What did you like most about the sessions?” one learner wrote:

I think it is a good way to consolidate my thoughts and reflect about the process of coping and moving forward in the face of difficulty. I like hearing how other people cope and deal with the hardships of residency training and medicine. It helps to begin to get into the habit of reflection. Helps to normalize the process of hardships and failure.

Another learner noted, “I liked the sense of community I felt with my co-residents. It’s nice to know that other people share and can relate to the experiences that you have gone through.” Finally, one learner commented on the “specific, day to day tools,” and another said the session was “helpful at reinforcing healthy behaviors and lifestyle choices.”

In response to the postcurriculum survey question on suggestions for improvement or additional feedback, several learners noted they would prefer a shorter survey. One way to combat this is to use a shorter Connor-Davidson Resilience Scale, as there are shorter versions available. We have also noted that the Connor-Davidson Resilience Scale distribution and presurvey are optional if survey fatigue is a large problem for your learners.

## Discussion

This resilience curriculum was helpful and well received by residents. It provided a forum for reflection and discussion to help participants improve leadership and resilience skills. These workshops could be used with a variety of learners across health professions and training levels. The greatest challenges are finding time in the curriculum to run the workshops and identifying appropriate facilitators.

We chose these particular workshop topics based on our own clinical experience, our experience implementing a resilience curriculum for interns at our institution, and literature on both resilience and leadership in medicine. We particularly wanted to address the role of a team leader in a clinical setting, along with the unique challenges and stressors that team leaders may have to face. We also wanted to address difficult clinical events, which are ubiquitous across many settings in medicine and thus may have widespread applicability. We used previously created and validated tools such as the Connor-Davidson Resilience Scale, which has been widely used across many different populations. We aimed to balance

sharing of personal experiences and applying a framework for discussion to cases to give learners specific tools they could apply in their daily clinical practice.

A strength of this curriculum lays in providing participants with practical skills to apply when leading teams. The curriculum also allows participants to share experiences and offers a forum for open communication with peers. It is easily implemented within existing program structures and does not require additional funding. Since the sessions combine small-group discussion and reflection, they are adaptable to varied learners.

We targeted one specific group of learners at our institution—residents, who already had time built into their schedules for a curriculum such as this. However, there are many other groups that could benefit from this curriculum, and given more time, we would like to expand it to these groups, including medical students, fellows, and attendings. We also think this curriculum could benefit nonphysician providers such as nurses and nursing leaders, advanced practice nurses and nurse practitioners, and perhaps other interdisciplinary staff clinical leaders in fields such as physical or occupational therapy.

One of the limitations of this curriculum is the limited nature of the sessions—just 2 hours. Pairing it with our introductory curriculum on resiliency is one way to make it more robust. In the future, we plan to continue to implement both curricula as a way to continue to make the culture of open discussion and resilience more visible. Going forward, we no longer plan to distribute the precurriculum survey and Connor-Davidson Resilience Scale so as to avoid the survey fatigue that many of our participants experienced. Another potential area for future study would be validation of the pocket cards created for the curriculum. Additionally, more system-wide interventions and training may be required to fully impact burnout and resilience levels. Further work is needed to demonstrate the impact of resilience skills training on stress, burnout, and resilience in medical education.

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#### Prior Presentations

Bird A, Martinchek M, Pincavage A. I'm burned out! Helping our medical trainees develop skills to build resilience. Workshop presented at: Association of Program Directors in Internal Medicine Fall Meeting; October 8-10, 2015; Atlanta, GA.

Martinchek M, Pincavage A. I'm burned out! Helping our medical trainees develop skills to build resilience. Workshop presented at: Central Group on Educational Affairs Spring Meeting; April 6-8, 2016; Ann Arbor, MI.

Martinchek M. Resilience skills: an introduction. Invited workshop presented at: Asian Pacific American Medical Student Association National Conference; October 1, 2016; Chicago, IL.

Martinchek M. Building resilient teams: senior resident experience with difficult clinical events. Oral abstract presented at: Learn Serve Lead: the AAMC Annual Meeting; November 11-15, 2016; Seattle, WA.

Martinchek M, Bird A, Miller R, Pincavage A. Combating burnout: supporting your residents to enhance resilience. Workshop presented at: Academic Internal Medicine Week; March 19-22, 2017; Baltimore, MD.

Martinchek M, Pincavage A. Teaching faculty to cultivate resilience across the continuum. Workshop for Central Group on Educational Affairs Spring Conference; March 29-31, 2017; Chicago, IL.

#### Ethical Approval

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

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