Ideas to Action: Using Curriculum Design to Develop a "Roadmap to Wellness" Curriculum

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ABSTRACT

Introduction: Physician burnout, well-being, and professional fulfillment are deeply intertwined topics that are increasingly recognized as affecting the lives of physicians, health care workers, and patients alike. The Accreditation Council for Graduate Medical Education (ACGME) mandates that all residencies address wellness within the context of residency training without providing much guidance on how to do so. Emergency Medicine organizations such as the American College of Emergency Physicians, the American Academy of Emergency Physicians, the Society for Academic Emergency Medicine, and the Council of Residency Directors of Emergency Medicine (CORD) suggest that one method to address wellness is in the form of a curriculum. Successfully developing or modifying a curriculum to work for individual residency programs can be a difficult task.

Methods: The CORD Resilience Committee Wellness Curriculum Subcommittee comprised of experts in physician wellness and medical education started by conducted literature searches on terms related to burnout and wellness and searching the internet for documented wellness curricula, models and resources. Using this information and a standard curriculum development process, they created a roadmap for developing (or modifying), initiating, and evaluating a wellness curriculum.

Conclusion: Wellness curricula are not a one-size-fits-all situation. Using the checklist and guidelines in this white paper, readers can individualize existing wellness curricula to help foster physician well-being.

INTRODUCTION

Physician burnout, first publicly discussed almost 40 years ago, has drawn increasing focus since its prevalence among physicians was published by Shanafelt et al. in 2012, and even more so in the wake of the COVID-19 pandemic [1-2]. With the spotlight on burnout and its consequences, the concepts of physician wellness, well-being, resilience, and professional fulfillment are considered possible counters to burnout. Training physicians within all specialties in these areas seems critical to ending the problem of physician burnout; yet, creating a comprehensive and practical curriculum may initially seem overwhelming. It is important to distinguish wellness, which describes maintaining health through illness or obstacles, from well-being, which describes a more holistic condition of livelihood. Thus, well-being encompasses wellness and both terms provide important goals to strive towards. This white paper from the Council of Residency Directors in Emergency Medicine (CORD) Resilience Committee Wellness Curriculum Subcommittee aims to provide faculty and institutions with a stepwise approach to develop an institution-specific wellness curriculum.

The Problem (Problem Identification)

Defined fully by Christina Maslach in the 1970s, occupational burnout is a constellation of symptoms across three dimensions - exhaustion (feeling both emotionally and physically overextended), depersonalization/cynicism (experiencing a callous or detached attitude), and inefficiency/lack of personal accomplishment (perceived lack of confidence or work achievement) resulting from exposure to long-term, seemingly unresolvable job stresses in those who do "people work" [3]. Using this definition, Shanafelt et al. determined that approximately 1 in every 2.63 US physicians suffers from burnout to some degree, a much higher rate than is reported in the general population (1 in 4.29) [2]. Across medical specialties, Emergency Medicine (EM) physicians have a comparatively high prevalence of burnout [2, 4-8].

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The prevalence of burnout continues to rise, with over half of all practicing physicians currently affected [9-12]. Burnout affects individual physicians, health care institutions, and society as a whole. The consequences of burnout include lower career satisfaction and higher rates of depression, alcohol and substance abuse, and suicidal ideation [7-8, 13-14]. Critically, over 400 physicians die by suicide annually, twice that of the general population, with a suggested standardized mortality rate of 1.44 [15-19]. Many more physicians leave their jobs and medicine, exacerbating an already problematic workforce shortage [16, 20-21]. Physician turnover costs institutions an estimated $500,000 to $1 million for each physician lost, including recruitment costs, sign-on bonuses, and onboarding expenses [22]. Physicians suffering from burnout who stay in medicine report decreased work engagement and higher levels of medical errors, both of which are associated with poorer patient care [7, 23-30]. The decreased quality of patient care and the loss of practicing physicians have led to worsening overall medical care in the United States [9].

Added to the problem of burnout is the concern that this phenomenon begins early in the medical profession: one survey demonstrated that 52.8% of medical students met the criteria for burnout [31]. Additional studies have supported this finding, with burnout prevalence ranging from 45% to 71% in medical students [10, 32-34]. The stressors of medicine continue in residency training, with 25% to 75% of residents suffering from burnout [35]. Dyrbye et al. found a clear correlation between the level of anxiety in 4th-year medical students and the degree of burnout of those same students during their second year of residency [36].

Because this problem starts early on, interventions to combat it should also start early, targeting medical students and residents. The question becomes how and with what focus.

Initial attempts to combat burnout focused on individual solutions, such as eating healthy, exercising, and practicing meditation and yoga, with a goal of achieving the nebulous concept of personal wellness as defined by both the National Wellness Institute and The American College of Emergency Physicians (ACEP) [37-40]. However, it has become increasingly clear that the primary contributors to burnout lie largely within the organizational and systemic structures of healthcare and the moral injury experienced by physicians as they deal with these structures on a daily basis [20, 41-44]. This creates a difficult question for those interested in intervening in this issue: how do we help physicians avoid or overcome burnout when the sources of burnout exist outside of their control?

While burnout can be primarily traced to non-individual factors, individual factors can mediate the effects of system factors on physician well-being. It is also important to recognize that wellness is not the absence of burnout. Factors that promote professional fulfillment and physician wellness are different from the factors that prevent or address burnout [45-48]. With this in mind, effective wellness interventions should target both individual and organizational level factors. Three major models for physician well-being serve as guides for those looking to develop and/or improve physician well-being in their organization: The Mayo Clinic Program on Physician Well-being, Stanford WellMD, and the National Academy of Medicine (NAM) Action Collaborative on Clinician Well-being and Resilience. While each model highlights different frames of impact, these three models similarly consist of multiple components relating to both organizational and individual factors [46-48]. Due to the interplay of multiple components at the organizational and individual level, initial attempts to "fix" burnout may have failed because no attention was paid to the higher-level issues at work placing stress on physicians. However, as each physician experiences and responds to stressors differently, some interventions that address a physician's capability to cope with these stressors may contribute to overall decrease in burnout and improvement in well-being, as long as they occur in conjunction with attempts to address the organizational and systemic issues.

Prioritizing both physician wellness and efforts to combat burnout have become important to those in Graduate Medical Education (GME). In 2017, the Accreditation Council for Graduate Medical Education (ACGME) introduced the common program requirement mandating physician well-being be addressed with other aspects of resident education, without providing more extensive guidance [49]. Multiple organizations, including ACEP, the American Academy of Emergency Physicians (AAEM), the Society for Academic Emergency Medicine (SAEM), and CORD, suggest that the areas of wellness and burnout be addressed in the form of a curriculum [40, 50-52].

Developing and implementing an individualized program wellness curriculum is a daunting task, particularly since research suggests it should use educational theory to address end goals and be integrated into the existing didactics [53]. The ACGME mandates that residencies address wellness and physician well-being yet provide few concrete resources to meet this requirement. Starting from this point, this paper aims to provide a stepwise approach to developing and implementing a wellness curriculum. The same steps can be used to modify an existing curriculum to meet local needs.

METHODS

A group of experts in both physician wellness (burnout, resilience, etc.) and medical education from the CORD Resilience Committee Wellness Curriculum Subcommittee* formed a workgroup. The purpose of this workgroup was to use a standard curriculum development process in order to create a roadmap for developing, initiating and evaluating a wellness curriculum. Additionally, members of the workgroup provided differing levels of experience and expertise with prior design and implementation of wellness curriculums within their home institutions.

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Given the established expertise in burnout and physician wellness of the workgroup, each member conducted their own literature searches using terms including but not limited to: "physician and burnout"; "resident and physician and burnout"; "resident and burnout"; "cost and burnout"; "medical student and burnout"; "model and wellbeing"; "improving wellbeing"; "mitigate burnout"; "physician and resilience"; "burnout and resilience"; "Kern's six steps"; "wellness and burnout"; "curriculum and assessment"; "needs assessment"; "curriculum design"; "wellness curriculum"; "resident and needs assessment"; "burnout and patient outcomes"; "SMART goals"; "FAST goals"; "educational methods"; "small group learning". The workgroup also searched medical society and residency program websites to find existing curriculums, models for wellness, and resources that are not published in the medical literature.

DISCUSSION

The Solution: Creating a Wellness Curriculum

Creating a wellness curriculum allows for the development of a comprehensive resource to address critical elements of physician wellness, including identifying factors that contribute to burnout and fostering the development of resilience. This paper follows Kern's six steps to curriculum development:

1. Problem identification and general needs assessment;
2. Focused needs assessment;
3. Goals and objectives;
4. Educational strategies;
5. Implementation; and
6. Evaluation and feedback [54].

While the examples provided are specific to emergency medicine, the concepts are generalizable across all specialties.

Step 1: General Needs Assessment

Curriculum development begins with a combination of problem identification and the performance of a general needs assessment. In this case, burnout and the need to address well-being during residency have already been identified. During the general needs assessment, those creating the curriculum are able to determine the specific needs of the curriculum based on a program's current state.

The first question of the *general needs assessment* is "why is this curriculum being created?" and refers to the curriculum's goals. The curriculum's central focus can be to improve wellness or to mitigate burnout, or both. Still, focusing on improving wellness is likely the better choice as Schmitz et al. found that a resident curriculum focusing on wellness and resilience instead of burnout helps optimize the improvement in physician self-care and the downstream effects of burnout [55]. Studies have demonstrated that physicians who practice self-care also provide higher quality patient care and are less likely to commit medical errors, be impaired, or leave clinical practice [56]. The overall goals of the curriculum should be expansive and provide an idea of what will constitute successful design, implementation, and outcome. They may be difficult to measure. Examples include examining the difference between health and wellness and improving the well-being of the participants in the program.

Once the overall goal is established, program developers need to understand their foundation: Is there a wellness curriculum in place? If yes, what does it look like? If not, what, if anything, is currently being done to address wellness and burnout? Developers also need to decide the ideal platform and modality to educate residents on wellness and burnout. Once the answers to these questions are understood, program developers have completed the general needs assessment and may move onto the next step.

Step 2: Focused Needs Assessment

An effective wellness curriculum should be tailored to meet the unique needs of the program's EM residents. For example, resident physicians' risk of experiencing burnout, depression, and suicide is higher than that of the general population; however, the rates of resident mental health concerns and the specific contributing factors vary by residency program and institution [57-58]. Therefore individual programs should conduct a *focused needs assessment* to understand the unique characteristics of their own residents and learning environment, including understanding the local institutional landscape pertaining to wellness and burnout [54]. This helps program developers determine which topics related to wellness and burnout need to be addressed in their curriculum and which topics may not be relevant to their learners.

When conducting a focused needs assessment, four things must be addressed:

1. Understanding who the learners are.
2. Understanding how the program performs regarding wellness and burnout in general - does the program use any burnout or wellness metric tracked over time? Do the learners understand basic concepts about wellness and burnout?
3. Understanding the needs of the learners, the program, and other stakeholders.
4. Identifying other factors that influence curriculum development: non-learner stakeholders, institutional and residency politics, available resources, barriers, etc.

Learners

Most residency programs focus entirely on resident education, though developers could also consider other "learners" within the department. While often considered faculty in terms of staffing models, physician fellows have recently graduated and could be included as learners. On the other end of the spectrum, medical students could also be considered. Although individual medical schools may address medical student wellness, medical students rotating through the department often have the opportunity to participate in residency curricular sessions. This early-career involvement is paramount to creating and fostering a commitment to physician wellness. There is both potential benefit and detriment to including faculty of any level within the group of learners. Expanding the group of learners beyond residents may negatively impact the residents' feeling of psychological safety, thereby decreasing the quality and impact of the session. Yet, there is also a potential positive benefit of including faculty as they can serve as professional role models and a support system. Ultimately, faculty wellness and

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their support of a wellness curriculum deeply impact resident well-being.

Current Program Effectiveness

Validated survey instruments to assess well-being and work-related stress can be used to assess need and establish a baseline measurement for later evaluating the curriculum's effectiveness. Given the nature of the surveys, resident responses should be anonymous with programs using aggregate data. Wellness instruments utilized should be valid, quick to complete, and appropriate for resident physicians. Several potential assessment tools may be found in **Appendix 1**. When choosing a tool, program developers must consider the tool length (shorter tools often lead to an improved response rate); assessment tool cost (budget for tools or limit to free tools); and the plan for the results of the testing (are the tool results in line with the curriculum goals? Will the results help target the curriculum? Test once or test and retest?). Finally, burnout is a transient state that often fluctuates in severity over time and by season. Program developers should use caution when using burnout tools as part of their needs assessment: identifying the problem may not always identify the need.

Learners' Needs

The needs of individual residents can vary significantly from those of their peers and often differ from what faculty believe the residents need. For example, residents may believe things like free food at work, defined spaces to store personal items, a break room to utilize while on shift, or reduced-cost gym memberships will positively affect their well-being (all things not addressable with a curriculum), while faculty concerns may center around issues with administrative metrics, lack of autonomy, or inadequate compensation [8]. As part of the targeted needs assessment, program developers must directly ask residents about their wellness needs. This will improve the likelihood of success of the curriculum [53].

Of note, organizational issues such as the Electronic Health Record (EHR), lack of departmental support and autonomy, lack of ability to seek mental health assistance because of licensing requirements, and clinical pressures (the business of medicine, RVUs, the proliferation of non-physician providers) play a large part in burnout, particularly at the attending level [59]. While addressing these issues is beyond the scope of any wellness curriculum, and if identified during a needs assessment, they should be brought to the attention of departmental leadership (and the wellness committee, if one exists). Residents must be aware of these issues and may benefit from having resources to address these issues in their future practice [42, 60].

Specific methods commonly used to conduct a focused needs assessment include questionnaires and face-to-face discussions (e.g., informal discussions, interviews, focus groups) with learners. Questionnaires can also identify the residents' perception of factors impacting their well-being and ways to improve the wellness curriculum. Items on the questionnaires may be open-ended or multiple choice. An open-ended question may ask, "What should the residency do to improve resident well-being? Again, the survey length should be kept to a minimum to maximize the response rate. Zaver et al. created a Resident Needs Assessment tool that may be useful to

program developers [51]. Focus groups or one-on-one discussions with residents may help to better understand survey results and begin piloting ideas for a wellness curriculum. Any focus groups should be limited to five to eight people, sessions should be recorded and transcribed for analysis and later review, and faculty facilitators should have an interest in wellness and be provided a few questions to guide the discussion. Program developers should strongly consider faculty facilitators outside of the residency leadership to allow residents a more "open" and "safe" environment in which to give their opinions.

Program developers must also consider whether they can address all issues identified by the focused needs assessment. Some issues are better addressed by residency program leadership or department leadership or a wellness committee rather than a wellness curriculum. Other issues may fall under other departments or institutional purview. No matter under whose purview the residents' concerns fall, acknowledging these needs will show that the learners' needs are being heard. This is critical for buy-in from learners.

Other Factors

A targeted needs assessment involves identifying multiple factors that influence curriculum development and implementation, such as resources available and barriers to implementation.

- *Resources:* There are three resources to consider when developing and implementing a curriculum: people, money, and time. The people are referred to as stakeholders, and while learners are the main focus of the curriculum, the reach is broader. The ultimate stakeholder in physician wellness are patients since burnout is associated with many adverse patient-centered outcomes [22, 61]. Additional stakeholders include residency program leadership and staff, faculty, and the rest of the healthcare community. Any of these groups may become facilitators of the curriculum as they will ultimately benefit from improved resident wellness.
- Also, members of these groups may actually be content experts (of wellness in general or specific topics).
- *Finances* in curriculum development are an essential consideration and may be both a resource and a barrier. Money to fund speakers (both internal and external), buy down time for the curriculum developers, and general costs in content and materials for curriculum will influence feasibility and implementation.
- *Time* is something that all residency conference coordinators struggle with throughout the year. The time to support the wellness curriculum comes at the cost of other curriculum topics and is best negotiated with the program leadership team. There are four "times" a wellness curriculum can occur (a combination of some or all of those four). **Table 1** details these different "times" and the advantages and disadvantages of each. Attendance and perceived benefit may vary depending on when the curriculum is implemented. Of note, while finding the time to include wellness in the overall didactics can be challenging, any program genuinely seeking to improve and champion wellness will find a way to integrate a wellness curriculum.

- *Barriers:* In doing the general and targeted needs assessments, program developers may find various barriers to the wellness curriculum as a whole or curriculum implementation. Some of these have been mentioned above, such as time and money. Before implementation, program developers will need to address these barriers and plan to address further unforeseen barriers (such as resistance to change on the part of faculty or learners, a hidden curriculum discovered within the existing curriculum, lack of support from department leadership or administration, or non-appearance of resources that were promised) that develop.

Table 1: Times a Wellness Curriculum Can Occur

Time for Implementation	Advantages	Disadvantages
Outside of educational time ▪ No requirement to attend ▪ No credit for attending	▪ Easiest way to launch ▪ No need to move other didactic content	▪ Decreased attendance (no requirement, no credit) ▪ Difficult to prove to ACGME that wellness is being addressed
During required conference time ▪ Required attendance ▪ Attendance credit	▪ Maximal number of learners	▪ Other didactic content removed or less covered
After work hours, highly recommended function	▪ Improved attendance secondary to an official function ▪ Other didactic content may not need to be moved	▪ Resident wellness impaired (cutting into personal time)
Part of Residency Retreat(s)	▪ Great place to introduce wellness (often beginning of the year)	▪ Limited sessions ▪ Limited engagement ▪ Limited continuity ▪ Will need additional sessions

Combination
▪ Multifaceted Curriculum Example:
  a. structured didactic elements
  b. individualized, interactive instruction (III) assignments
  c. additional internet-based resources [62]
	▪ Learners complete assignments at their own pace, on their own time
	▪ Less compromise of other didactics
		▪ Lack of compliance with unstructured elements

Step 3: Goals and Objectives

After completing the targeted needs assessment, the next step is to create overall *goals* and specific *program objectives* [54]. Often, these will be related to whatever curriculum is already in place. See the Supplementary Material for potential wellness curriculum sessions and their associated objectives.

Curriculum in Place

If the residency already has a curriculum, two questions must be asked. First, is the curriculum working in its current format? Program developers should solicit feedback using tools such as session evaluation and in-person feedback as it pertains to previously determined goals and needs. Determining the efficacy of the curriculum will be further discussed in the section on evaluation.

Second, what needs to change about the current program? No program is perfect, and even a good curriculum will likely need modifications as the program and learners evolve. Program developers should review both the responses to curriculum evaluation and surveys discussed above. The evaluation will also

address gaps and redundancy in the curriculum. In addition to reviewing the curriculum as a whole, program developers should also review each session within the curriculum and discuss questions such as:

- Were the goals and objectives of the session achieved?
- Was the audience engaged?
- Did the audience find value in the sessions?
- Would another format better address the goals and objectives?

No Curriculum in Place

As stated above, an important consideration before launching any curricular intervention is clarifying who will provide the content and resources available in terms of time and money. Program developers should then review the needs assessment data to determine the topics of most interest for the residents and what needs to be addressed in the curriculum. Topics such as stress management, conflict resolution, feedback, and mindfulness are perfect for this an initial wellness curriculum. Program developers may also consider other GME programs and resources in wellness and consider utilizing elements of that curriculum, including their speakers. The first part of the Supplementary Materials is a table that provides examples of established wellness curriculums, with some in which residents are the target audience.

Some suggested curriculum topics involve helping residents develop self-awareness, self-monitoring, self-regulation, and continued practice promoted through public accountability within the healthcare institution [63]. Ways to do this include training on skills within the four dimensions of resilience (attitudes and perspectives that promote self-efficacy and persistence; balance and prioritization that foster a sense of self-control; a desire to learn from difficulty; and supportive relationships which can help one face new challenges), teaching reflection, helping residents understand the importance of both self-demarcation and "failure friends," teaching the importance of self-compassion and self-care, and fostering mindfulness [64-69]. An in-depth review of the importance of these aspects of creating well-being is beyond this paper's scope. Further information can be found within the references. Additionally, the second part of the Supplementary Material details some example wellness curriculum sessions.

After determining the framework upon which the program developers will build their curriculum, the next step is to establish a series of objectives that will help clarify the goals while prioritizing the curriculum. Objectives clearly communicate the curriculum's intentions to all involved while enabling (and focusing) program evaluation. These objectives should be created using either the SMART (Specific, Measurable, Achievable, Realistic, Time-bound) or FAST (Frequently discussed, Ambitious, Specific, Transparent) framework and may be related to learners, processes, or outcomes [70-71]. **Figure 1 (next page)** includes a few potential wellness curriculum objectives.

Those revising an existing wellness curriculum should review their objectives to ensure that they utilize one of the two frameworks above, that the objectives still apply to the curriculum, and that all learning levels (outcomes, performance, competence, attitudes, knowledge) are addressed.

Problem Identification/General Needs Assessment

_X_ What is the problem?: Burnout and all its consequences

___ Why is the curriculum being created? (overall goal of the curriculum)

___ Is there a wellness curriculum in place? (revision or starting fresh)
   - If not, what is being done to address wellness?

___ What is the *ideal* way to educate about wellness and burnout?

Focused Needs Assessment

___ Who are the learners for this program? (likely the residents)
   - How are fellows, medical students, and faculty wellness addressed in this curriculum?

___ How is the residency currently doing with wellness and burnout?
   - Which assessment tool is going to be used for this? (see Appendix 1)

___ What are the learners' needs in terms of wellness and burnout education?
   - How will these be assessed: surveys, focus groups, one-on-one discussions?
   - How will the systems issues be addressed?

Resources available:
- Time: How much will be dedicated to this curriculum? When will it start? When will it be presented (outside of educational time without requirement or credit, during conference time, highly recommended residency time but outside of "conference." time, during residency retreats, combination)?
   - Funding: Is there funding to pay for assessment tools, outside speakers, etc.?
   - People: Who will teach? What expertise is available within the department, hospital, institution?

Goals/Objectives

___ What is(are) the over goal(s) of this curriculum?

Curriculum in place:
___ Is the curriculum working the way it is? (see Evaluation section)
      What needs to change?
      ___ What are the established objectives of the curriculum?
            ___ Are the objectives Specific, Measurable, Achievable, Realistic, Time-bound?
            ___ Do the objectives still apply to the curriculum?
            ___ Do the objectives address all levels of learning? (outcomes, performance, competence, attitudes, knowledge)
      ___ Is the curriculum meeting the goals and objectives?

No curriculum in place:
___ What topics need to be addressed?
___ What are the objectives for the curriculum? (see Supplementary Material for examples)
   - Are the objectives Specific, Measurable, Achievable, Realistic, Time-bound?
   - Do the objectives address all levels of learning? (outcomes, performance, competence, attitudes, knowledge)
   - Example objectives:
      - Create a culture of wellness
      - Introduce concepts beyond those typically defined as part of wellness
      - Improve scores on the desired outcome measure
      - Develop an individualized wellness plan with three strategies to improve personal wellness
      - Offer a repository of wellness resources to learners

Educational Methods

___ How are the lessons going to be presented?
   - Didactics, asynchronous learning, panel sessions, discussion sessions (team-based, problem-based, inquiry-based, case-based)?

___ When are the lessons going to be presented?
   - One year cycle, three to four-year cycle, class year directed sessions

Implementation

___ What is the plan for implementation?
   - When, exactly, is the curriculum going to start?
   - Who is going to be responsible for maintaining the curriculum?

Program Evaluation

___ How is the effectiveness of the program going to be decided?
   - Overall effectiveness: original targeted needs assessment tool?
   - Individual session effectiveness: learner knowledge translation?
   - Electronic or face-to-face evaluations?

___ What is the action plan for if the curriculum (or individual sessions) are not well received?

___ What is the action plan to modify the curriculum if the desired improvement is not seen?
   - Is the lack of improvement because the wrong assessment tool is being used?

___ Are all ACGME core requirements being addressed? (see Table 2)

Figure 1: Checklist for Creating a Residency Wellness Curriculum

Step 4: Educational Methods

The combination of goals, objectives, and learner needs helps determine the *educational methods* used to present the sessions [54]. It is critical to understand the needs of adult learners when deciding which educational methods are congruent with learner needs and curriculum objectives. Like the objectives, educational methods must be feasible for the residency program. Program developers should consider limitations on what will work for their program, even if using or modifying a previously developed curriculum. There are two considerations in educational methods: how and when.

How

There are four general ways to present wellness topics. Didactics can be done for large or small groups. The larger the group, the less learner involvement will take place. Asynchronous learning in the form of online modules, readings (articles, blogs), or podcasts may increase both the breadth and depth of topics addressed in the curriculum. Panel sessions, facilitated by either faculty, resident(s), or both, allow learners to hear various viewpoints. Several types of discussion sessions (team-based, problem-based, case-based, inquiry-based) offer a chance to involve all residency members but may work better in smaller groups [72-73]. An in-depth discussion regarding the advantages and disadvantages of different educational methods is beyond the scope of this article. Interested readers may consider work completed by author Petrina and the PhD Essay. [72-73].

When

There are three types of "when" - a one-year cycle, a three- to four-year cycle, and residency class-specific sessions. A one-year cycle involves the same content being presented to all learners each year. While this increases the likelihood each learner experiences each session during their residency, it also cuts down on the number of topics presented and may affect engagement and attendance. In a three- to four-year cycle plan, the entire residency still receives the information simultaneously, but different topics are presented each year on a rotating basis. While this may allow more topics to be addressed overall, learners missing just a few sessions may miss a significant fraction of the allotted wellness curriculum throughout their residency training. To increase intimacy and foster a sense of community, program developers may consider class-directed sessions to provide the same information to all the members of each class at once, separate from other classes. These sessions allow faculty to address class-specific needs and build upon previous sessions as residents progress. However, like the three to four-year cycle, residents missing a few sessions may miss a significant portion of their wellness curriculum. Most program developers will find that a combination of all three methods will work best for their program.

While Kern's next step is implementation, program developers should create the plan for implementation and develop their curriculum evaluation methods before actual implementation [54].

Step 5: Implementation

Implementation plan

Having a structured implementation plan is essential and will likely depend on the timeline (longitudinal vs. rotating curriculum). Implementing a longitudinal curriculum at the same time an intern class starts and then adding content as that class progresses through residency is one option. Rotating curriculum may start at any time and allows learners the most opportunity to attend each session. If resources are limited (both time and money), it may not be sustainable for several wellness champions to maintain the curriculum. Developing, implementing, and delivering a curriculum requires a significant amount of time and energy. Organizational support from the residents, the residency leadership, faculty, and the departmental leadership is vital for success.

Step 6: Evaluation

Evaluating a curriculum involves four considerations [54]. First, the wellness curriculum should be evaluated at the end of each session and the end of the cycle. Session evaluations may be done electronically or in person. When deciding how to evaluate the curriculum as a whole, consider utilizing any assessment tool used as part of the targeted needs assessment, as this will help monitor for change. For evaluation of individual sessions, there may be a tool available to help assess knowledge translation with the learners. For example, during a mindfulness session, learner development can be evaluated before and after with the Five Facets Mindfulness Questionnaire [74].

Second, create an action plan for when the curriculum (or an individual session) is not well received. While program developers may have received approval from relevant stakeholders prior to implementation, post-session feedback may still be unfavorable. Consider asking for more detailed information on what is and what is not working well in the form of focus groups or discussions with representation from key stakeholders. Once the program developers understand the areas for improvement, objectives should be reviewed and modified to align with stakeholder expectations and/or modify educational methods that were not well received.

Third, create an action plan for modifying the curriculum if the desired improvement (based on the assessment tool) is not successfully delivered. This can be challenging as it may be tool-dependent related to the curriculum objectives and educational methods. It may be that a different assessment tool, despite not being used during the needs assessment, aligns better with the curriculum's overall goals and objectives. Also, it is possible that the initial outcome chosen may not be the best outcome to measure for the goals and objectives of the curriculum.

Fourth, every wellness curriculum must be inclusive of the ACGME core requirements [48]. There may be an alternate method that will address the requirement more effectively than the one initially chosen. **Table 2** details each of the 10 core requirements and ways to incorporate them into the curriculum. Program developers may find this a useful starting place when developing their sessions.

Table 2: ACGME Core Requirements for Wellness [49]

Core Requirement	Potential Ways to Address
Efforts to enhance the meaning that each resident finds in the experience of being a physician	Reflective writing Group storytelling exercises
Attention to scheduling, work intensity, work compression	Not directly amenable to a curriculum, but strategies to improve workflow and efficiency may help with work intensity. Sessions on how to schedule may be beneficial for senior residents as they look for jobs.
Evaluating workplace safety data	Important data for resident education may be part of the wellness curriculum, QI curriculum, and/or morbidity & mortality curriculum.
Policies and programs that encourage optimal resident and faculty member well-being	A curriculum alone certainly highlights an educational program that promotes well-being, but a wellness committee may better fill this requirement (see section).
Residents must be allowed to attend medical, mental health, and dental care appointments.	This falls out of the scope of a wellness curriculum, but programs should highlight the importance of personal physical and mental health.
Attention to resident and faculty member burnout, depression, and substance abuse.	Burnout and mental health issues, including burnout and substance abuse, are important topics that the curriculum should include. Additionally, these topics have assessment and measurement tools that can be utilized for baseline assessment or serial assessments.
Encourage residents and faculty members to alert the program director or other designated personnel when they are concerned about another resident, fellow, or faculty member who may display signs of burnout, depression, substance abuse, suicidal ideation, the potential for violence.	This should be included in the curriculum and emphasized by departmental and residency leadership. Creating a culture of safety to report concerns is critically important.
Provide access to appropriate tools for self-screening.	There are many free online screening tools. Some have been listed previously in this paper (see Appendix 1). Additionally, individual institutions or healthcare systems may also provide screening tools. These are often found on the human resources, employee benefits, or employee wellness websites.
Provide access to confidential, affordable mental health services.	This will not be part of a curriculum but providing education on resources available is important.
Each program must allow an appropriate length of absence for residents unable to perform their patient care responsibilities.	Again, this will not be part of a curriculum but providing education on resources available is important.

Finally, according to Kern, having completed all six steps of curriculum development, program developers are ready to implement their individualized wellness curriculum [54]. To increase success, to help address identified issues affecting resident wellness that a curriculum cannot address, and to help promote a culture of wellness within the department, program developers may also consider creating a wellness committee. Similar to establishing a wellness curriculum, the wellness committee should have goals and objectives with a clear purpose and mission statement. It should meet regularly (at least quarterly) and be supported by department leadership. The committee should be open to faculty, residents, and other departmental staff, depending on the department's size. This promotes inclusion, collaboration, and collegiality and further ensures the success of the program. Residents must be involved in the wellness committee, and one should consider having a resident well-being lead or chief resident for well-being. Involvement may be limited to the departmental level or may have more prominent involvement in the school of medicine and/or the entire healthcare system [75]. This committee should also support the development and implementation of the wellness curriculum. The wellness committee and wellness curriculum should work in tandem to promote a departmental culture of wellness. See **Figure 2 (next page)** for an example of a wellness committee "charter."

1. Wellness Committee
   1. Background: committee established based on department level feedback
   2. Members: Faculty, Residents, APPs, staff
   3. Meetings will be held monthly to quarterly
   4. Goals & Objectives
      1. Goal: To improve the state of member wellness within the Department of Emergency Medicine
      2. Objectives
         1. Address Department morale and well-being at all levels - faculty, residents, APPs, and staff
         2. Provide consistent social events for faculty and their families to promote camaraderie and a sense of inclusiveness. This includes an annual Department party and other department-related social events.
         3. Develop/refine the budget for wellness activities within the department
         4. Discuss, review and provide resources for detrimental behavior among all Department members (faculty, residents, APPs, and staff), i.e., substance abuse, interpersonal skills, disruptive behavior.
   e. Personnel/Roles
      1. Chair: oversees the meeting, ensures dissemination of minutes, updates committee on national, regional, local and institutional wellness activities, encourages educational expansion.
      2. Staff member: updates events and activities on the wellness tab on the website
      3. Significant-other representative: provides input and helps to plan activities that foster a sense of community but may not regularly be present at meetings.
   f. Academics: Educational activities
      1. Curriculum - The wellness curriculum director is an active member of the wellness committee. Curricular content is discussed and reviewed with both the wellness committee and the education committee. Wellness committee members may also serve as curricular session leaders and content matter experts.
      2. Newsletter - bi-monthly publication featuring photos, honors and awards, family news, upcoming events, and a wellness corner focusing on wellness activities and strategies. Brief Wellness Wednesday emails providing wellness tips and highlighting departmental and systems-level initiatives.
      3. Website including links to the newsletter, photos from events, a statement on the department's commitment to wellness, bio links for wellness leaders, and their key wellness publications
   g. Research: as applicable

Figure 2: A Wellness Committee Charter

CONCLUSION

Wellness curriculum development is not the same for each institution or specialty. While reviewing previously published and implemented curricula from other departments and institutions serves as a starting point, each program developer must understand both the unique needs of their department and learners and the resources available while anticipating any potential barriers to create their ideal wellness curriculum. The CORD Resilience Committee Wellness Curriculum Subcommittee believes that physician well-being and physician burnout affect several pressure points of the healthcare delivery system. As such, it recommends prioritizing programs that foster physician well-being. See Figure 1 for a checklist to follow for those interested and the Supplementary Materials for suggestions related to a curriculum.

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