Well-Being Within a Radiation Oncology Department: A Single Institution's Experience in Creating a Culture of Well-Being

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Abstract

Objective: To summarize the efforts of a single department in addressing burnout among staff and promoting a culture of well-being.

Methods: Surveys from across the department and among individual workgroups were used by leadership to develop methods to address burnout and promote well-being. Committees with members from diverse department roles were also formed to further develop initiatives to create a culture of well-being.

Results: Based on the feedback from surveys, individuals, and committees, we have established a strong culture of well-being within our department. These efforts extend not only to addressing pain points in the work day but also to initiatives creating a sense of camaraderie among staff members across the department.

Conclusion: With the support of institutional and departmental leadership, it is possible to create meaningful improvements in reducing burnout, increasing personal fulfillment, and creating a culture of well-being.

Keywords: well-being, burnout, physician burnout, radiation oncology

Introduction

Burnout is a syndrome resulting from chronic workplace stress that has not been successfully managed, characterized by emotional exhaustion, depersonalization, and a reduced sense of personal accomplishment.[1] Physician burnout has been widely studied and is associated with substance abuse, clinical depression, suicidality, reduced quality of patient care, poor patient outcomes, medical errors, lower patient adherence to physicians' recommendations, and patient dissatisfaction.[2] In addition to physicians, all members of the radiation oncology team are at risk for burnout. A meta-analysis consisting of 11 studies on burnout in radiation therapists found a pooled prevalence of emotional exhaustion, depersonalization, and reduced sense of personal accomplishment for radiation therapists at 38.7%, 21.5%, and 28%, respectively, putting radiation therapists at medium to high risk for burnout.[3] Medical dosimetrists are also at risk for burnout, with staffing shortages and high planning workload being

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associated with reduced feelings of personal accomplishment.[4] Medical physicists have also reported high levels of stress and burnout,[5] with one study reporting rates of 33% to 36% of physicists within their department endorsing burnout symptoms when surveyed over 2 years.[6] Oncology health care workers also face unique challenges that can be incredibly impactful, including frequent exposure to the suffering or death of patients they have cared for. These distinctive stressors have potential to further contribute to burnout.[7]

Recognizing burnout as a crisis in health care, our institution and department have intentionally assessed burnout levels and proactively initiated efforts to improve professional fulfillment and reduce burnout. Well-being has been assessed annually in our department among not only attending physicians, but also residents, advanced practice providers (APPs), nurses, and other staff members using the Maslach Burnout Inventory, which measures burnout as defined by the World Health Organization and in the ICD-11.[1] Although rates of burnout in our department were comparatively low when considering the national average or other departments within our institution, rates were still considered unacceptably high. With a goal to enhance professional fulfillment, which is associated with improved patient outcomes and retention,[7-10] our department has taken initiatives to address burnout across many roles. Here, we report a single institution's approach to assess burnout and implement strategies to intentionally cultivate and sustain a culture of well-being within the department. The grassroots efforts that began within the residency program[11] sparked a department-wide strategy that has resulted in improved community and intention for well-being.

Interventions

Residency

Radiation oncology residency is a stressful experience in which residents are entering a new environment, often away from support networks, coupled with the complex task of caring largely for oncology patients, which comes with a steep learning curve. Imposter syndrome and psychological distress are common.[12] Understanding that well-being is a critical issue for residents, as part of our annual didactics, a clinical psychologist working with the Department of Student Services in a learner support role met with the residents and discussed the topic of isolation in medicine. This prompted an informal needs assessment of the residents, which identified both an interest and a need for a dedicated well-being curriculum. A resident champion with a passion for well-being partnered with a psychologist, a medical humanities professional, and the associate program director to formalize monthly well-being sessions. Residents underwent a formal needs assessment to identify topics associated with burnout, imposter syndrome, depersonalization, work-life balance, financial strain, second victim phenomenon, and coping with anxiety and depression being identified as areas of interest. During the 2019-2020 academic year, the inaugural well-being curriculum consisted of monthly 1-hour small group sessions focused on one of the identified topics of interest. Sessions were held during protected education time and were optional for residents to attend. Optional sessions during protected education time was an intentional part of the design and implementation of the curriculum to avoid further contributing to burnout and feeling overburdened.[11] To provide a balance of topics, sessions alternated between a psychological tool-focused approach and humanities exercises. Incorporation of humanities into medical training has been shown to improve the ability to empathize with patients and promote a more patient-centered approach to care[13,14] Efficacy was evaluated using the Stanford Professional Fulfillment index, which assesses aspects of a culture of wellness, personal resiliency, and efficiency of practice.[15] Survey results were used to modify the well-being curriculum for the next academic year with the goal of continuously refining the sessions and ensuring that residents found them meaningful and useful.

The resident champion and associate program director received grant funding via a competitive educational grant. Following the grant period, the initial results of the first 23 months of the curriculum were presented to the department leadership in the summer of 2021 to obtain an annual budget to sustain the efforts. Costs during the grant period and benchmarking examples from other departments with resident well-being budgets were also utilized to determine an appropriate amount of funding, resulting in a departmental fund allocation of $70/resident per year to be used for quarterly resident wellness events outside of work hours. Events are determined by resident suggestions, with the activity itself or food for the activity being funded by the department allotment. Events have included an annual welcome pool party to start the academic year, sporting event watch parties,

indoor climbing, and paint nights, all of which have been well attended by residents.

To sustain the program, a resident well-being committee was created, led by a senior resident, consisting of residents in different years of training with an interest in well-being to be mentored to continue the program after the original resident well-being champion graduated. The committee selects topics for well-being sessions and coordinates well-being activities to build camaraderie. An award with funding was created for the resident champion to attend an educational conference in recognition of time and efforts. We have also continued to have quarterly humanities-focused activities with the help of the institutional Humanities in Medicine group, such as a focus on narrative writing or a hands-on artistic endeavor. An example of such an exercise includes reviewing a short narrative piece, such as an excerpt from *Art of Oncology*, and then following up with residents writing their own reflections on experiences that relate to the topic being discussed.

Our program also implemented an annual 1-day-long retreat. Residents, the department chair, and program leadership participate in well-being-focused activities, designed by the resident and faculty wellness champions. The structured component of the day consists of a candid group discussion of well-being topics or a pertinent journal article. This is followed by a creative activity, such as painting or photography, and free play with sports and aquatic activities. The retreat occurs early in the academic year to promote team building and engagement.

In addition to tools to build community and camaraderie, our program added structure opportunities for bidirectional feedback about the health of the program and any concerns that may be present. For example, in addition to existing group residency and program leadership meetings, PGY-level-specific meetings with program leadership occur regularly. Research time was enhanced for added flexibility to be used over the PGY3-5, depending on goals. In addition to preferences for research timing, residents were also given the opportunity to submit preferences for rotation timing and mentors. All proposed schedules require final approval by educational leadership; however, added flexibility and input into determining rotation schedules has afforded a welcomed autonomy within the program.

Department

Social and Well-Being Committee: Engagement and Community

The grassroots efforts that began with the residency program sparked a department-wide strategy that has resulted in improved community and intention for well-being. A departmental well-being and social committee was established consisting of members with different departmental roles to ensure the interests of all groups are represented, including attending and resident physicians, nurses, APPs, administrative and desk staff members, and radiation therapists. Members from our satellite locations were included to represent the unique needs of our other locations as well. The committee holds a monthly meeting to discuss ideas, brainstorm activities, plan for future events, review the outcomes of previous events, and implement interventions that may contribute positively to departmental morale. The committee is led by a physician, who has granted protected time for the role. The department provides $12,000 per year to the committee to support initiatives, in addition to $3000 provided from a separate fund that staff physicians contribute to.

Events are chosen with the goals of promoting social connectedness and teamwork, especially across departmental roles. With representatives from diverse departmental roles, locations, and life stages, events are appealing to a broad audience.

Social distancing required early in the COVID-19 pandemic at the inception of many of these initiatives created additional unique challenges, especially in creating a sense of camaraderie within the department. Despite this challenge, we held events that allowed safe social distancing, such as a team trivia night conducted over Zoom, teaming with a private company that specializes in virtual trivia events, Trivia Hub. Our institution developed specific “Joy at Mayo” grants to empower recipients to improve the culture in their local working environments. Department Social and Well-being Committee members were awarded one such grant for Minnesota and Wisconsin state park passes. Group outings with trail hikes, snacks, and activities were planned for those interested as a method to build community outside of work, while including family.

As social distancing restrictions were eased, additional events were organized, including a departmental outing to a local baseball game, community volunteer opportunities, and creating teams to participate in local 5Ks to further promote a sense of community within the department.

A month-long departmental fitness challenge was started in winter 2021, and it has been popular and sustained, with challenges occurring 1 to 2 times annually. Participants choose a team member and are strongly encouraged to choose a partner in a different departmental role to

Table 1. Activities With Goals Used in the Departmental Fitness Challenge

CHALLENGE ACTIVITY	GOAL	MAXIMUM POINTS
Physical activity	30 min per day	30
Water intake	8 cups	1
Meditation/prayer/relaxation	5 min	1
Nightly sleep	7 h	1
Weekly challenge	Specified each week, post photograph	1

build connections across job titles. The goals of the challenge are focused on promoting activities that are evidence-based and associated with improved overall well-being, as noted in **Table 1**. To encourage engagement among participants, weekly challenges for additional points were added, such as posting photos of trying a new fitness activity, recipe, or outdoor activity. For administrative ease, points are tracked using a commercial challenge application, Challenge Runner, where participants are also able to post their weekly challenge photos. At the end of the challenge, participants with the most points are awarded gift cards to local businesses. Prizes are also given in other categories, such as best photo or most creative team name.

To promote social engagement, a department Facebook group was created where people can post about upcoming activities and share exciting personal endeavors. In a recent example, employees have been sharing their senior photos as part of a department-wide scavenger hunt.

A weekly department newsletter was also created. The department was engaged for naming, and ultimately voted on the "HotDish," a reference to the popular Minnesota dish and the process of sharing information. The HotDish consists of a message from the department chair or other appropriate department leader, professional and personal celebratory announcements, a "getting to know you" section featuring 1 to 2 randomly selected department members, and news about upcoming events.

Workplace Optimization

In addition to community building and teamwork, efforts to improve workplace processes have been instrumental in promoting professional fulfillment. Using information from annual well-being surveys, including the Sirota survey, specific departmental surveys, and employee feedback, our department implemented strategies to identify departmental workflow pain points. Groups consisting of representatives of different job roles within the department met to discuss methods of addressing the identified areas, with consideration of how each group would be affected before developing a plan that could be presented to leadership for consideration. Investment from leadership within the department was a high priority. The department leadership encouraged innovative solutions and presented a general openness to optimize workflows. Examples of successful interventions include the creation of new workstreams and roles, several of which we will note below.

One such intervention was the creation of the "dosimetry bridge," which consists of radiation therapists who prepare CT images for contouring and initial imaging fusion that is then approved by the treating physicians. This new therapy role enhanced opportunity and professional satisfaction for radiation therapists, as well as improved efficiency for medical dosimetrists and physicians. The role of the medical dosimetry assistant was also created to assist with normal structure contouring, plan verifications, research protocol submissions, and various other planning-related tasks. This increases the efficiency of physicians and medical dosimetrists, while also providing a strong foundation for radiation therapists with aspirations to train as medical dosimetrists. Together, these roles streamlined the process of completing contours and treatment planning, while providing an avenue for professional development and job satisfaction.

Another minor change with improved satisfaction was adopting a new call schedule. Call physician responsibilities include covering late treatments for the proton facility, which is scheduled to complete treatment at approximately 11 PM, in addition to inpatient call responsibilities and serving as backup physician for covering image checks and new starts at the machine. Recognized challenges with the on-call schedule included handoff of weekend consults and fatigue from the long hours. The attending physicians were surveyed and afforded the opportunity to provide input regarding optimization of the schedule. Proposed options included decoupling late-evening coverage from call, implementing call as a single day, rather than a 1 week, and simply adjusting the timing of call from Monday through Friday to Wednesday through Tuesday. After a review of preferences with stakeholder feedback, the call structure was

Table 2. Departmental Workplace Culture Survey

CATEGORY	QUESTION
Safety culture: mistakes	I feel safe to admit and learn from mistakes
Innovation	I feel encouraged to innovate and come up with new ideas
Safety culture: speak up	I feel free to speak my mind without fear of negative consequences
Decisions	I am involved in decisions that affect my work
Inclusivity	Where I work, efforts are made to make everyone feel like part of the team
Composite score	

adjusted to Wednesday to Tuesday to facilitate improved longitudinal care of weekend on-call patients and for the weekend to break up the week of consecutive late-evening coverage. Call dates for radiation therapists and residents were adjusted in kind to ensure a consistent call team. In addition, a system was implemented for on-call attendings to opt out of late-night coverage if desired.

The inpatient component of call consists of the primary physician covering inpatient consults, while still seeing on-treatment visits and scheduled follow-ups. Inpatient call coverage includes two hospitals, approximately 1 mile apart. Balancing the triage and management of inpatient consults with the needs within the department and seeing scheduled clinic patients was also identified as an area with potential improvement through an institutional Practice Optimization and Acceleration (POA) program designed to increase practice efficiency.[16] Using a POA project structure, the department piloted the creation of an inpatient APP and nurse service to assist with initial inpatient consults during the day. We leveraged the improvement in call physician schedule to enable additional access for follow-up and urgent outpatient consults. The inpatient APP and nurses provide reliable coverage to evaluate urgent consults and facilitate treatments under the supervision of the call physician. The pilot was well received by staff, and the inpatient APP and nurse have now been established as full-time positions within the department. These inpatient APP and nurse roles provided increased autonomy and professional fulfillment, while providing efficient inpatient care with enhanced continuity. The inpatient APP and nurse also rotate in 3-month blocks with an outpatient service, which aids in preventing burnout with the less predictable inpatient call schedule.

The clinical practice committee continually reviews the processes and satisfaction to identify other opportunities for improvement. Two pilots are ongoing within the department to address coverage of high-dose treatment image review and improve communication across the department through standardized processes and platforms.

A department survey was created in 2021 based on the questions previously used in the Sirota survey to assess improvements or declines in department culture. The survey evaluates the workplace culture in the domains of safety culture, innovation, decision-making, and inclusivity, as noted in **Table 2**. A composite score was created based on whether each survey statement was viewed favorably or unfavorably. Compared with 2021 and trending back to 2020, the 2022 results for attending physicians showed an increase in the composite score from 55% to 70%, following the implementation of many of the interventions described above.

Additional efforts have also been made specific to radiation therapists and medical dosimetrists. Radiation therapists were engaged when deciding how to schedule patients with the upgrading of linear accelerators and CT sims as they are most directly affected by the treatment schedule. With this consideration, the ultimate decision was to have an earlier daily treatment start time to prevent therapists from working late each day, as later days had greater potential to overlap with home and childcare responsibilities. This decision impacted other workers, including desk staff, physicians, and physicists. Each group communicated closely, which ultimately allowed for the accommodation of these preferences. With respect to medical dosimetry, a work-from-home option was created as data support that working from home can have a positive effect on reducing burnout.[4,17] An internal survey of medical dosimetrists was conducted, and 100% of the respondents reported maintaining or increasing quality of work, productivity, and well-being while teleworking. Initiatives were explored to maintain quality and continuity of care within department teams, including virtual collaboration avenues, alternative clinic coverage models, and virtual plan review options. With this, team members in many roles collaborated to pilot then standardize the communication platform for remote treatment plan review and processes to ensure consistent, high-quality communication. As on-site dosimetry support continues to be a need in the department, an on-site rotation schedule was developed with dosimetry staff input.

Table 3. Pillars of Well-Being and Initiatives Our Department Used to Address Them

PILLARS OF WELL-BEING	INITIATIVES
Community	Virtual trivia night
	Minnesota and Wisconsin state park passes
	Baseball game
	Volunteering
	Fitness challenge
Engagement	HotDish Newsletter
	Department Facebook group
	Social and Well-being Committee
Workplace	Changes in call schedule
	Adjustments to treatment start times
	Creation of new roles (medical dosimetry assistants, dosimetry bridge, inpatient team)
	Work-from-home option for dosimetry

Discussion

Burnout is a concern not only for physicians but also for the team members with varying roles within a radiation oncology department.[3,4,7,12] This contributes negatively in both the personal and patient care realms of an individual's life.[18] We have worked to create a culture of well-being within our department, approaching opportunities through the lens of social, organizational, and interpersonal commitments to well-being. A key component to the success of our department's initiative has been garnering support across many roles for creating and maintaining this effort. Stakeholder engagement has been important to identify initiatives to pilot, continue, or end. This allows staff across the department of varying roles to feel empowered to actualize change. Departmental leadership has been invested in supporting both social engagement as well as structural and process changes. Constant re-evaluation of department processes with the goal of identification and mitigation of so-called "pain points" has been instrumental.

While personal resilience is an important aspect of avoiding burnout,[19-21] strategies at the organizational level are also needed to prevent burnout and promote well-being. Our department's multifaceted approach has been a key factor in its success. We encourage other departments to approach well-being in their institution through the lens of three pillars of well-being—community, engagement, and workplace—and include representatives from each key role (**Table 3**). Using this approach, we have been able to foster a sustainable culture of well-being within the department that considers the impact of particular changes on each work team and enables meaningful change, while supporting a sense of community. We further attribute the success to considering organization and workstream changes in conjunction with social engagement. For example, if there are numerous activities for community building and engagement outside of work, but the workplace itself has many troublesome areas that remain unaddressed for long periods, it would be difficult to reduce burnout and frustration while at work. Finally, the support of the department chair and clinical practice leaders to allocate time for physician leaders and encourage thoughtful evaluation and implementation of many of the above changes, often leading the efforts to pilot initiatives, has been crucially important.

Conclusion

Burnout continues to be a pervasive problem in health care, across all specialties, levels of training, and roles, including radiation oncology departments. With department and institutional leadership support, meaningful improvements in professional fulfillment and reduced burnout are possible. A multifaceted approach with key stakeholder engagement to identify specific opportunities within individual departments is recommended.

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