

Helping those who help others: Building an internal medicine resident wellness program

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Abstract

Purpose: Medical residency can be difficult due to challenges such as sleep deprivation, social isolation, high-stress work, and having little control over daily events. Thus, residents often experience high levels of burnout, which is associated with depression, suicidal ideation, and medical errors. Focusing on enhancing wellness and decreasing burnout through implementing a wellness program may help mitigate this problem. The purpose of this article is to provide an outline of a burgeoning wellness program and related interventions carried out by internal medicine residencies.

Methods: The authors describe the creation and components of an internal medicine resident wellness program, which includes a retreat, lecture series, mentorship, and evaluation through resident feedback.

Results: Feedback suggest that the wellness program has been well received. Respondents noted the benefits of learning strategies to decrease burnout and enhance wellness and have felt validated when hearing about colleagues' burnout and wellness experiences. Wellbeing is now a more commonly initiated topic of discussion. Continual evaluation will be used with the intent of creating an evidence based resident wellness program.

Conclusions: Although it requires time, effort, dedication, and organizational support, building a resident wellness program is feasible and a worthwhile endeavor.

Keywords: wellness, burnout, resident wellbeing, wellness program, internal medicine resident

Introduction

Medical residents face a multitude of challenges. They work long, high-stress hours, have little control over daily events, and receive high levels of responsibility [Thomas 2004]. Additional difficulties include sleep deprivation, interacting with difficult-to-treat patients, living in a new city, social isolation, financial struggles, and facing a steep learning curve [Levey 2001]. As a result, internal medicine residents in the United States experience burnout at a rate of 55% to 76% [Ripp et al. 2010]. Burnout is defined as a "psychological syndrome of emotional exhaustion, depersonalization, and reduced personal accomplishment that can occur among individuals who work with other people in some capacity" [Maslach et al. 1997].

Residents who are burned out have a higher likelihood of reporting that they have provided suboptimal patient care [Shanafelt et al. 2002]. Additionally, emotional exhaustion, depersonalization, and reduced personal accomplishment are associated with greater odds of future self-reported medical errors [West et al. 2006]. Burnout can lead to medical negligence or malpractice litigation [Anagnostopoulos et al. 2012] and is correlated with increased odds of suicidal ideation [Dyrbye et al. 2008].

Remediating this problem can impact residents and organizations in a positive manner. A recent meta-analysis found interventions targeting burnout for either residents or physicians reduced overall burnout scores, on average, by 10% [West et al. 2016]. This would lead to a meaningful reduction in medical errors [Shanafelt et al. 2010], suicidal ideation [Shanafelt et al. 2011], and improvements in

productivity [Shanafelt et al. 2016].

Focus on wellness

There is a call for the medical field to shift its' focus from burnout alone as an indicator of wellness to a more comprehensive view [Eckleberry-Hunt et al. 2009]. Wellness does not solely mean having an absence of the negative; be it illness, depression, anxiety, dissatisfaction or conflict. A literature review has shown there are a variety of definitions and conceptualizations of wellness in the field [Foster et al. 2007]. For the purpose of this paper, wellness encompasses health in physical, emotional, social, intellectual, and spiritual domains [Foster et al. 2007].

Achieving a state of wellness can, in part, be reached through practicing wellness behaviors and attitudes. These behaviors and attitudes, such as exercise and mindfulness practice, are those which increase an individual's sense of wellbeing by increasing life satisfaction, relationship satisfaction, job satisfaction, and decrease the symptoms and effects of burnout and/or mental health difficulties. A description of studies on the outcomes of enhancing wellness behaviors are displayed in Table 1. These behaviors practiced by medical residents are associated with decreased symptoms of burnout and/or improved life satisfaction. [Fortney et al. 2013; Lebensohn et al. 2013].

While practicing the wellness behaviors can increase satisfaction and perception of balance in life, enhancing these behaviors alone does not solve all problems related to burnout, as there is no 'cure' or infallible strategy to prevent burnout [Montgomery 2014]. Various external factors in the medical field or organization can contribute to an individual's level of burnout such as a supervisors' leadership [Shanafelt et al. 2015], career stage [Dyrbye et al. 2013], the disconnect between physicians and medical policy makers [Montgomery 2014], providing sub-optimal care due to patients being underinsured or uninsured [Walden 2016], and excessive administrative paperwork [Adler 2016], to name just a few. The problem of burnout indeed has roots in the medical field at-large rather than being solely attributable to the individual [Montgomery 2014]. However, practicing wellness behaviors can allow residents to enhance personal wellbeing, even in the context of often- trying circumstances. This is not to say that residents are solely responsible for their wellbeing. The system in which residents work must enhance its ability to promote wellbeing if residents are to be truly well.

Residencies addressing wellness

Residency training has the potential to be a rewarding. It is often a time for great personal growth [Levine et al. 2006]. Despite witnessing illness, suffering, and death in patients, residency training can be a gratifying experience [Schwartz 2009], during which trainees can become competent physicians and develop satisfying lives, both personally and professionally. To this end, many residencies have implemented programs focused on enhancing wellbeing and decreasing burnout. One study found 83% of family medicine residencies had stress management lectures or workshops and 79% reported having resident retreats [Gardiner et al. 2015]. Others have included access to mental health providers, residency support groups, stress management lectures, and retreats [see Table 2; Gardiner et al. 2015]. Additionally, residencies have attended to wellness through employing on-call strategies such as short naps, focus on proper nutrition, and hydration [Puddester 2014], the use of a resident time-off policy to use health care services [Cedfeldt et al. 2015], or giving residents credit for home calls. These strategies may be effective in addressing resident well-being and should be considered. The remainder of this article will focus on the creation and description of a wellness program that has been successfully integrated into an internal medicine residency. This program has incorporated some of the aforementioned wellness enhancing strategies in addition to others that, as a whole, have created a wellness initiative that is both feasible and sustainable.

Program Development

The fundamental components for starting our wellness program were the desire to have such a program and ability to practically support the program. The desire to build a wellness program was identified at the residency program level from residents, chief residents and program administration, and also at the institutional level due to the recent on-campus suicide of a nurse. The ability to develop such a program, especially in a complex healthcare and educational system, was dependent on aligning values with engaged key stakeholders. In our case, practical support, including funding and carved out time in residents' schedules was provided by the directors of the internal medicine residency program and the graduate medical education office. Along with support from stakeholders, an internal medicine faculty member, with an interest in resident wellbeing, was identified as the director of the wellness program in 2016. This faculty member is responsible for scheduling and developing components of the program and for carrying out ongoing program evaluation. Also, residency program directors initiated and carry out a resident retreat and other faculty participate in the program through sharing their expertise and experience both formally during didactics and informally through guidance and advice. This study was deemed a quality improvement project by our institution's IRB and, as such, seeking ethical approval from the IRB deemed unnecessary.

Wellness program components

Based on the extant literature on resident wellness, burnout, and resilience, and feedback from residents and faculty in the department of internal medicine, an inaugural wellness program, focused on promoting resident wellbeing was developed and was implemented after 6

months of planning. The biopsychosocial model [Engel 1977], which highlights the interconnection between biomedical and psychosocial domains of wellbeing, was used as a framework to guide the development of the program. Each of the program components was developed to attend to an aspect of biopsychosocial wellness. This program will continue to be modified and enhanced based on formal and informal resident and faculty feedback.

Resident Retreat. Creating a culture of wellness begins for our residents at the start of their intern year. Internal medicine faculty host a day-long retreat during which residents participate in activities that facilitate a connection between residents, learning about the importance of biopsychosocial wellness, and gaining insight into the expectations that accompany the resident role. This retreat is facilitated by residency program directors, faculty, and staff, who model their own commitment to wellbeing through participation in each of the retreat activities with residents.

Wellness lecture series. Throughout the academic year, residents participate in a formal wellness lecture series, which consists of 6 bi-monthly hour-long lectures per year, during noon conference education time, on topics related to promoting biopsychosocial wellbeing. Each lecture is conducted by a faculty member from our academic medical center who is an expert in a respective topic area. During lectures, resident participation, and informal discussion are promoted. Lecture topics are provided in Table 3.

The months in which formal curriculum is not provided, residents have one scheduled hour blocked off to participate in informal “grab and gabs,” during which residents eat lunch in a private conference room and converse informally with colleagues. Also, because residents requested additional wellness activities during winter months, when they perceive burnout and stress to be at an annual high, facilitated activities, such as art therapy and board games, will be provided during the “grab and gabs.”

Health half days. As part of the wellness program initiative residents have been provided with “health half days,” which are scheduled for vacation-eligible months, to attend medical appointments. With these scheduled half days of free time, health care appointments can be scheduled months in advance so residents can more readily and purposefully attend to their health during residency. Residents have access to a list of health care providers, both physical and mental health, who accept residents’ insurance and have been recommended by fellow residents and faculty.

Resident to resident mentorship. A peer matched mentorship program has also been initiated. Third-year residents are paired with first-year residents to provide practical support. Common discussion topics include productivity tips, information on medical record “short cuts,” and balancing work and non-work activities, as well as psychosocial support such as normalizing difficulties, discussing the importance of self-care, and providing contact information on appropriate community physical and mental health resources. Mentorship pairs meet quarterly at a place and time of their mutual choosing. Support for mentors is provided by internal medical faculty.

Social activities. Social activities are also an important piece of the wellness program. Residents plan activities for their residency class or the residency as a whole that are typically family-friendly. Dates and times for these activities are then publicized and are typically highly attended. Examples of activities include holiday light tours, ice skating, and sports games.

Resident wellness advisory board. Following creation of the wellness program components, which were co-developed by faculty and residents, a resident wellness advisory board was put in place to guide the program. The board meets quarterly and includes at least two residents from each class. This board makes decisions on each of the specific program components, such as noon conference topics, to the development of strategies to create a culture of wellness in the residency.

Webpage. A resident wellness page has been placed on the residency’s main Internet site. This page contains information about the program, a calendar of didactics and activities, and photographs of wellness events. The page also contains a mission statement for the program, developed by the board, which reads, “Empower residents by providing biopsychosocial wellness education and tools that can enable residents to achieve optimal wellbeing.”

Assessment protocol. An assessment protocol to measure the impact of the wellness curriculum and wellness-related activities on resident wellbeing is currently being carried out. Directly following each of the six talks in the wellness lecture series, residents complete a brief assessment that contains both Likert scale and open-ended questions, which are related to what residents learned and the overall perceived utility of the lecture. Additionally, every three months, residents are asked to complete The Brief Resident Wellness Profile, which measures residents’ mood and sense of professional accomplishment [Keim et al. 2006].

Results

The resident wellness program has been running for over a year. This program has been fit into the existing internal medicine residency schedule through use of noon conference education time. The inclusion of residents in the creation and ongoing development of the program has allowed for widespread acceptance of the program, greater discussion of wellness in the residency, and sustainability.

Preliminary results from data collected suggest wellness lectures have been well received. Respondents have commented on the benefits of

learning about wellness goal setting, the normalization experienced when hearing other colleagues also feel unwell, and the benefits of learning about specific strategies to enhance physical and psychosocial wellbeing. Residents and attending physicians both report having often broached the subject of feeling burned out or stressed with the faculty member that leads the wellness program. Through an iterative process, each piece of the wellness program will continue to be modified based on resident feedback evaluation. Periodic evaluation will provide information to support the program and make it increasingly effective. The ultimate goal is to create an evidenced based practice for building and facilitating a resident wellness program for internal medicine residents.

Because of the positive anecdotal feedback and encouraging results from the preliminary analysis of resident assessments, we will continue to provide the current components of the program and additional pieces to the program, such as making healthy food options more readily available and adding financial guidance to the noon conference series.

Conclusion

Through organizational support, time, and effort from dedicated faculty and residents it is possible to build a sustainable and acceptable resident wellness program in an internal medicine residency. Additional systemic changes are indeed needed to promote resident wellbeing at an organizational level. However, developing a program that assists residents with increasing wellness behaviors, normalizing difficult experiences, thoughts, and feelings, and providing practical ways for residents to enhance self-care and connection with colleagues is a useful endeavor.

Take Home Messages

- Residency can be a challenging time, yet distress can be mitigated through the creation of a wellness program.
- Sustained effort and collaboration between faculty and residents can lead to the development of an appropriate and acceptable wellness initiative.
- An iterative process can be used to meaningfully modify a wellness program based on expressed resident needs and perceptions.

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Bibliography/References

Adler, K. G. (2016). Physician Burnout: Let's Treat the Root Causes. *Fam Pract Manag*, 23(4), 6.

Anagnostopoulos, Fotios, Liolios, Evangelos, Persefonis, George, Slater, Julie, Kafetsios, Kostas, & Niakas, D. (2012). Physician burnout and patient satisfaction with consultation in primary health care settings: Evidence of relationships from a one-with-many design. *Journal of Clinical Psychology in Medical Settings*, 19(4), 401-410.

<https://doi.org/10.1007/s10880-011-9278-8>

Bragard, I., Etienne, A. M., Merckaert, I., Libert, Y., & Razavi, D. (2010). Efficacy of a communication and stress management training on medical residents' self-efficacy, stress to communicate and burnout: a randomized controlled study. *Journal of Health Psychology*, 15(7), 1075-1081.

<https://doi.org/10.1177/1359105310361992>

Cedfeldt, A. S., Bower, E., Flores, C., Brunett, P., Choi, D., & Girard, D. E. (2015). Promoting resident wellness: Evaluation of a time-off policy to increase residents' utilization of health care services. *Academic Medicine*, 90(5), 678-683.

<https://doi.org/10.1097/ACM.0000000000000541>

Cooney, G., Dwan, K., & Mead, G. (2014). Exercise for depression. *JAMA*, 311(23), 2432-2433.

<https://doi.org/10.1001/jama.2014.4930>

Dyrbye, L. N., Thomas, M. R., Massie, F. S., Power, D. V., Eacker, A., Harper, W., . . . Shanafelt, T. D. (2008). Burnout and suicidal ideation among U.S. medical students. *Annals of Internal Medicine*, 149(5), 334-341.

<https://doi.org/10.7326/0003-4819-149-5-200809020-00008>

Dyrbye, L. N., Varkey, P., Boone, S. L., Satele, D. V., Sloan, J. A., & Shanafelt, T. D. (2013). Physician satisfaction and burnout at different career stages. *Mayo Clinic Proceedings*, 88(12), 1358-1367.

<https://doi.org/10.1016/j.mayocp.2013.07.016>

Eckleberry-Hunt, J., Van Dyke, A., Lick, D., & Tucciarone, J. (2009). Changing the conversation from burnout to wellness: Physician well-being in residency training programs. *Journal of Graduate Medical Education*, 1(2), 225-230.

<https://doi.org/10.4300/JGME-D-09-00026.1>

Engel, GL. (1977). The need for a new medical model: A challenge for biomedicine. *Science*, 196(4286), 129-136.

<https://doi.org/10.1126/science.847460>

Ensari, I., Greenlee, T. A., Motl, R. W., & Petruzzello, S. J. (2015). Meta-analysis of acute exercise effects on state anxiety: An update of randomized controlled trials over the past 25 years. *Journal of Depression & Anxiety*, 32(8), 624-634.

<https://doi.org/10.1002/da.22370>

Fortney, L., Luchterhand, C., Zakletskaia, L., Zgierska, A., & Rakel, D. (2013). Abbreviated mindfulness intervention for job satisfaction, quality of life, and compassion in primary care clinicians: A pilot study. *Annals of Family Medicine*, 11(5), 412-420.

<https://doi.org/10.1370/afm.1511>

Foster, L. T., Keller, C. P., & Boomer, J. (2007). *The British Columbia atlas of wellness*. Victoria, B.C.: Western Geographical Press.

Gardiner, P., Filippelli, A. C., Lebensohn, P., & Bonakdar, R. (2015). The incorporation of stress management programming into family medicine residencies-results of a national survey of residency directors: A CERA study. *Family Medicine*, 47(4), 272-278.

Ghetti, C., Chang, J., & Gosman, G. (2009). Burnout, psychological skills, and empathy: Balint training in obstetrics and gynecology residents. *Journal of Graduate Medical Education*, 1(2), 231-235.

<https://doi.org/10.4300/JGME-D-09-00049.1>

Goncalves, J. P., Lucchetti, G., Menezes, P. R., & Vallada, H. (2015). Religious and spiritual interventions in mental health care: A

systematic review and meta-analysis of randomized controlled clinical trials. *Psychological Medicine*, 45(14), 2937-2949.

<https://doi.org/10.1017/S0033291715001166>

Gunasingam, N., Burns, K., Edwards, J., Dinh, M., & Walton, M. (2015). Reducing stress and burnout in junior doctors: The impact of debriefing sessions. *Postgraduate Medical Journal*, 91(1074), 182-187.

<https://doi.org/10.1136/postgradmedj-2014-132847>

Jenkinson, C. E., Dickens, A. P., Jones, K., Thompson-Coon, J., Taylor, R. S., Rogers, M., . . . Richards, S. H. (2013). Is volunteering a public health intervention? A systematic review and meta-analysis of the health and survival of volunteers. *BMC Public Health*, 13, 773.

<https://doi.org/10.1186/1471-2458-13-773>

Lamothe, M., Rondeau, E., Malboeuf-Hurtubise, C., Duval, M., & Sultan, S. (2016). Outcomes of MBSR or MBSR-based interventions in health care providers: A systematic review with a focus on empathy and emotional competencies. *Complementary Therapies in Medicine*, 24, 19-28.

<https://doi.org/10.1016/j.ctim.2015.11.001>

Lebensohn, P., Dodds, S., Benn, R., Brooks, A. J., Birch, M., Cook, P., . . . Maizes, V. (2013). Resident wellness behaviors: relationship to stress, depression, and burnout. *Family Medicine*, 45(8), 541-549.

Levey, R. E. (2001). Sources of stress for residents and recommendations for programs to assist them. *Academic Medicine*, 76(2), 142-150.

<https://doi.org/10.1097/00001888-200102000-00010>

Levine, R. B., Haidet, P., Kern, D. E., Beasley, B. W., Bensinger, L., Brady, D. W., Gress, T., Hughes, J., Marwaha, A., Nelson, J., Wright, S. M. (2006). Personal growth during internship: a qualitative analysis of interns' responses to key questions. *Journal of General Internal Medicine*, 21(6), 564-569.

<https://doi.org/10.1111/j.1525-1497.2006.00383.x>

Martins, A. E., Davenport, M. C., Del Valle, M. P., Di Lalla, S., Dominguez, P., Ormando, L., Ingratta, A., Gambarini, H., Ferrero, F. (2011). Impact of a brief intervention on the burnout levels of pediatric residents. *Journal of Pediatrics (Rio J)*, 87(6), 493-498.

<https://doi.org/10.2223/JPED.2127>

Maslach, C., Jackson, S. E., & Leiter, M. P. (1997). Maslach burnout inventory. *Evaluating stress: A book of resources*, 3, 191-218.

McCue, J. D., & Sachs, C. L. (1991). A stress management workshop improves residents' coping skills. *Archives of Internal Medicine*, 151(11), 2273-2277.

<https://doi.org/10.1001/archinte.1991.00400110117023>

Milstein, J. M., Raingruber, B. J., Bennett, S. H., Kon, A. A., Winn, C. A., & Paterniti, D. A. (2009). Burnout assessment in house officers: Evaluation of an intervention to reduce stress. *Medical Teacher*, 31(4), 338-341.

<https://doi.org/10.1080/01421590802208552>

Montgomery, A. (2014). The inevitability of physician burnout: Implications for interventions. *Burnout Research*, 1(1), 50-56.

<https://doi.org/10.1016/j.burn.2014.04.002>

Ospina-Kammerer, V., & Figley, C. R. (2003). An evaluation of the Respiratory One Method (ROM) in reducing emotional exhaustion among family physician residents. *International Journal of Emergency Mental Health*, 5(1), 29-32.

Puddester, D. (2014). Managing and mitigating fatigue in the era of changing resident duty hours. *BMC Medical Education*, 14(1), S3.

<https://doi.org/10.1186/1472-6920-14-S1-S3>

Ripp, J. A., Fallar, R., & Korenstein, D. (2016). A randomized controlled trial to decrease job burnout in first-year internal medicine residents using a facilitated discussion group intervention. *Journal of Graduate Medical Education*, 8(2), 256-259.

<https://doi.org/10.4300/JGME-D-15-00120.1>

Ripp, J., Fallar, R., Babyatsky, M., David, R., Reich, L., & Korenstein, D. (2010). Prevalence of resident burnout at the start of training. *Teaching and Learning in Medicine*, 22(3), 172-175.

<https://doi.org/10.1080/10401334.2010.488194>

Salles, A., Nandagopal, K., & Walton, G. (2013). Belonging: A simple, brief intervention decreases burnout. *Journal of the American College of Surgeons*.

<https://doi.org/10.1016/j.jamcollsurg.2013.07.267>

Schwartz, D. S. (2009). "How's work?". *Annals of Emergency Medicine*, 53(1), 157.

<https://doi.org/10.1016/j.annemergmed.2008.06.459>

Shanafelt, T. D., Balch, C. M., Bechamps, G., Russell, T., Dyrbye, L., Satele, D., Daniel B.A., Collicott, P., Novotny, P.J., Sloan, J., Freischlag, J. (2010). Burnout and medical errors among American surgeons. *Annals of Surgery*, 251(6), 995-1000.

<https://doi.org/10.1097/SLA.0b013e3181bfdab3>

Shanafelt, T. D., Balch, C. M., Dyrbye, L., Bechamps, G., Russell, T., Satele, D., Rummans, T., Swartz, K., Novotny, P. J., Sloan, J., Oreskovich, M. R. (2011). Special report: Suicidal ideation among American surgeons. *Archives of Surgery*, 146(1), 54-62.

<https://doi.org/10.1001/archsurg.2010.292>

Shanafelt, T. D., Bradley, K. A., Wipf, J. E., & Back, A. L. (2002). Burnout and self-reported patient care in an internal medicine residency program. *Annals of Internal Medicine*, 136(5), 358-367.

<https://doi.org/10.7326/0003-4819-136-5-200203050-00008>

Shanafelt, T. D., Gorringer, G., Menaker, R., Storz, K. A., Reeves, D., Buskirk, S. J., Sloan, J.A., Swensen, S. J. (2015). Impact of organizational leadership on physician burnout and satisfaction. *Mayo Clinic Proceedings*, 90(4), 432-440.

<https://doi.org/10.1016/j.mayocp.2015.01.012>

Shanafelt, T. D., Mungo, M., Schmitgen, J., Storz, K. A., Reeves, D., Hayes, S. N., Sloan, J.A., Swensen, S. J., Buskirk, S. J. (2016). Longitudinal study evaluating the association between physician burnout and changes in professional work effort. *Mayo Clinic Proceedings*, 91(4), 422-431.

<https://doi.org/10.1016/j.mayocp.2016.02.001>

Smyth, N., Siriwardhana, C., Hotopf, M., & Hatch, S. L. (2015). Social networks, social support and psychiatric symptoms: Social determinants and associations within a multicultural community population. *Social Psychiatry and Psychiatric Epidemiology*, 50(7), 1111-1120.

<https://doi.org/10.1007/s00127-014-0943-8>

Thomas, N. K. (2004). Resident burnout. *JAMA*, 292(23), 2880-2889.

<https://doi.org/10.1001/jama.292.23.2880>

Walden, J. (2016). An overlooked cause of physician burnout. *Family Practice Management*, 23(1), 6-7.

West, C. P., Dyrbye, L. N., Erwin, P. J., & Shanafelt, T. D. (2016). Interventions to prevent and reduce physician burnout: A systematic review and meta-analysis. *Lancet*.

[https://doi.org/10.1016/S0140-6736\(16\)31279-X](https://doi.org/10.1016/S0140-6736(16)31279-X)

West, C. P., Huschka, M. M., Novotny, P. J., Sloan, J. A., Kolars, J. C., Habermann, T. M., & Shanafelt, T. D. (2006). Association of perceived medical errors with resident distress and empathy: A prospective longitudinal study. *JAMA*, 296(9), 1071-1078.

<https://doi.org/10.1001/jama.296.9.1071>

Woolery, A., Myers, H., Sternlieb, B., & Zeltzer, L. (2004). A yoga intervention for young adults with elevated symptoms of depression. *Alternative Therapies in Health and Medicine*, 10(2), 60-63.

Appendices

Table 1. Studies on Wellness Behaviors and Their Outcomes

Wellness Behavior	Outcomes
Exercise	As effective as pharmacological or psychological therapies in decreasing depression and moderately more effective than control group (Cooney, Dwan, & Mead, 2014) Decreased state anxiety (Ensari, Greenlee, Motl, & Petruzzello, 2015)
Yoga	Decreased depression and anxiety (Woolery, Myers, Sternlieb, & Zeltzer, 2004)
Mindfulness Based Stress Reduction	Decreased perceived stress, decreased burnout, reduction in anxiety, improved mental well-being (Lamothe, Rondeau, Malboeuf-Hurtubise, Duval, & Sultan, 2016)
Prayer	Significant reduction in anxiety and trend toward depression improvement (Goncalves, Lucchetti, Menezes, & Vallada, 2015)
Volunteering	May be associated with life satisfaction, well-being, and reduction in depression (Jenkinson et al., 2013)
Social support	Associated with decreased chances a depression episode (Smyth, Siriwardhana, Hotopf, & Hatch, 2015)
Restful sleep	Related to less stress, depression, burnout, and greater life satisfaction (Lebensohn et al., 2013)

Table 2. Studies on Resident Wellness Interventions or Programs

Wellness Intervention/Program	Outcome
Facilitated discussion groups	No statistically significant effects (J. A. Ripp, Fallar, & Korenstein, 2016)
One hour monthly Balint groups	No statistically significant effects pre- post-intervention for burnout scores Statistically significant improvement in residents' levels of interest, ability, or confidence in dealing with psychological aspects of patient care (Ghetti, Chang, & Gosman, 2009)

<p>Stress management workshop</p> <ol style="list-style-type: none"> 1. Interpersonal skills 2. Prioritizing personal, work, and education demands 3. Techniques to increase stamina and attended to self-care needs 4. Recognition and avoidance of maladaptive responses 5. Positive outlook skills 	<p>Improvement in Maslach Burnout Inventory (MBI) emotional exhaustion subscale scores compared to worsening scores in the nonintervention group</p> <p>Depersonalization and Personal accomplishment subscale scores worsened for both intervention and nonintervention groups. (McCue & Sachs, 1991)</p>
<p>Respiratory One Method</p>	<p>Statistically significant improvement in MBI emotional exhaustion subscale scores compared to control group (Ospina-Kammerer & Figley, 2003)</p>
<p>45-minute instruction on using the BATHE technique</p>	<p>No statistically significant difference in MBI scores between intervention and control groups (Milstein et al., 2009)</p>
<p>30-hour communication skills training and 10-hour stress management skills training</p>	<p>Statistically significant improvement in self-efficacy and stress to communication compared to control group</p> <p>No statistically significant change in MBI scores between intervention and control groups (Bragard, Etienne, Merckaert, Libert, & Razavi, 2010)</p>
<p>Self-care workshops over the course of two months</p>	<p>Statistically significant improvement in depersonalization scores in the intervention group compared to control group</p> <p>No statistically significant difference in burnout prevalence between groups (Martins et al., 2011)</p>
<p>Junior residents read anecdotes from senior residents regarding the challenges seniors faced early in their residency</p>	<p>Statistically significant lower rates of burnout in the intervention group compared to control group (Salles, 2013)</p>
<p>Four 1-hour debriefing group sessions lead by a senior health professional consisting of discussions regarding coping with stress, work-life balance, work relationships and level of support at work, ways to better support residents, and identifying issues contributing to job-related stress</p>	<p>The intervention did not improve burnout scores.</p> <p>Residents self-reported that debriefing groups as a valuable source of emotional support (Gunasingam, Burns, Edwards, Dinh, & Walton, 2015)</p>

Table 3. Wellness Lecture Series

Topic	Description
Introduction to Wellness and Biopsychosocial Goal Setting	Wellness program directors share aspects of biopsychosocial wellbeing and discussion of wellness program offerings. Residents are asked to set short term and long-term wellness goals.
Resident Wellness Resources	Invited university employees provide information regarding on and off campus resident wellness resources.

Physical Wellbeing	A panel of physicians, including an attending physician, chief resident, and current resident discuss facilitators and barriers to creating and maintaining physical wellbeing during residency. Following a panel discussion, residents are asked to participate in a facilitated discussion surrounding personal success and obstacles to creating physical wellbeing.
Emotional Health, Burnout, and Resilience	Through a lecture provided by a behavioral medicine faculty member, the importance of resilience and burnout are highlighted briefly. Strategies for promoting emotional health and resilience are provided. Residents are encouraged to participate in a conversation about emotional health barriers and facilitators and to share helpful strategies used.
Relational Wellbeing	Lecture provided by family therapist on the importance of relational wellbeing and strategies for navigating relationships during residency with spouse/partner, colleagues, and family members
Managing Second Victim Difficulties	A faculty member with expertise in second victim phenomena provides a brief lecture and facilitates discussion with residents regarding their second victim experiences.

Declaration of Interest

The author has declared that there are no conflicts of interest.