



## AMERICAN CONFERENCE ON PHYSICIAN HEALTH™

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# ABSTRACT BOOK



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# Oral presentations

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Consequence

# Canary in the coal mine: Quality care and perceived needs correlate with burnout rates

## Corresponding author:

Ellen Morrow, MD, MS

University of Utah

[ellen.morrow@hsc.utah.edu](mailto:ellen.morrow@hsc.utah.edu)

## Co-author(s):

Whitney Werner, MBA, MHA

Robin Marcus, PhD

Megan E. Call, PhD

Blake Hamilton, MD

Robert Pendleton, MD

Amy Locke, MD

## LEARNING OBJECTIVES:

1. Learn about the relationship between burnout and desired resources
2. Learn about the relationship between burnout and quality in patient care
3. Learn how to have a system-level approach to improvement across these areas

## PROJECT OBJECTIVE/BACKGROUND:

We aimed to assess burnout rates across our academic healthcare system among faculty. We assessed wellness resource preferences at the same time with the goal of improving provider experience. We also observed a relationship between provider burnout and quality of care among specific groups.

## METHODS/APPROACH:

We have conducted a survey of our school of medicine faculty annually since 2016. Our instrument in 2016 and 2017 was a modified version of the Mini-Z (©AMA). We added items assessing the perceived needs or desired resources to improve well-being. Wellness programs that were rated on the needs assessment included: communication skills training, mindfulness classes, self-care retreats, peer support program, quality improvement projects focused on wellness, clinic flow and efficiency, support for team led projects, and support for part-time and flexible work. In 2018-2019

we collaborated with our medical group engagement survey, adding burnout and needs assessment items rather than conducting a separate well-being survey. We also collaborated with our quality group to identify “hot spots,” or clinical areas where there is opportunity for quality improvement of patient care, as well as increased well-being among providers.

## RESULTS:

Our burnout rates were 29% in 2017 and 31% in 2019, with survey response rates of 44% and 42%.

The highest rated items on the needs assessment overall were clinic flow and efficiency, support for team led projects, and support for part-time and flexible work. Groups with higher burnout rates had less interest in communication skills and mindfulness training (see table). The medical divisions with the highest burnout rates on our most recent survey also had quality improvement opportunities that were identified. This has prompted a stronger working relationship between the Resiliency Center and Quality Improvement Office.

## CONCLUSION:

In our experience, groups with higher burnout rates are less interested in personal resilience resources.

Groups with high burnout rates in our academic medical center also have quality improvement opportunities. Measured burnout rates could serve as a “canary in the coal mine” to pick up clinical areas that are in need of a system-level approach to improvement of both patient care quality and provider experience.

Wellness Resources	No Burnout (%) N=473	Burnout (%) N=196
Communication Skills Training	37.7	19.4
Mindfulness Classes	39.3	28.1
Self-Care Retreats	29.8	30.8
Peer Support Program	40.5	36.4
QI Projects Focused on Wellness	35.7	32.8
Clinic Flow & Efficiency Projects	58.5	51.1
Support for Team-Led Projects	59.6	56.7
Flexible Work	60.8	64.6

# Is poor physician health linked to more patient complaints? Multivariate analysis of predictors of being in the physician health monitoring program (PHMP), College of Physicians & Surgeons of Alberta (CPSA)

## Corresponding author:

Delaney Wiebe, BSc, MPH

College of Physicians & Surgeons of Alberta

[Delaney.wiebe@cpsa.ab.ca](mailto:Delaney.wiebe@cpsa.ab.ca)

## Co-author(s):

Nigel Ashworth, MBChB, MSc

Nicole Kain, RN, BNSc, MPA, PhD

Jeremy Beach, MBBS, MD

Ed Jess, BA

Karen Mazurek, MD

## LEARNING OBJECTIVES:

1. Participants will be able to identify characteristics and predictors of being in the CPSAs Physician Health Monitoring Program (PHMP)
2. Participants will be able to note difference in characteristics and predictors of being in the CPSAs PHMP by four categories of participation: Medical, Psychiatric, Substance Use and Professionalism
3. Participants will learn one example of how a medical regulatory authority (MRA) can use this information to promote physician well-being and prevent burnout among registered physicians during the complaint investigation process

## PROJECT OBJECTIVE/BACKGROUND:

The College of Physicians & Surgeons of Alberta (CPSA) operates a "Physician Health Monitoring Program (PHMP)" that is responsible for monitoring and assisting physicians with any illness that could impact their medical or surgical practice. Little if any information exists in the literature that examines the relationship between complaints and physician health. The aim of this project is to determine whether physicians with complaints have a higher likelihood of current or previous health issues.

## METHODS/APPROACH:

We linked the CPSA registration, complaints, prescribing and wellness databases for the last available year. We compared the database information on demographics, work characteristics, prescribing flags on benzodiazepine and opioids for the previous year, and all complaints between the group who had accessed the PHMP at any time in their career and those had not. We performed a bivariate analysis and will create multivariate logistic regression models for each reason the PHMP was accessed.

## CONCLUSION:

Physicians who access our PHMP are significantly different to those who do not. Complaints/registration year appears to have a strong positive association with participants in the substance use and professionalism category. We anticipate the multivariate models for the four different groups will yield similar results. These findings have implications regarding promoting physician health during the complaints investigation process.

## RESULTS:

587/10003 registered physicians have been or are currently part of the PHMP. The nature of the PHMP was divided into four categories: medical, psychiatric, substance use and professionalism. Participants being monitored for medical, substance use or professionalism reasons were significantly older (mean age 54.6, 53.8, 53.0 vs 49.6). Physicians monitored for substance use and professionalism reasons were more likely to be male (83%, 89% vs. 62%). Physicians monitored for psychiatric conditions, were no different in age and were more likely to be female (57% vs 38%). In all four groups, physicians were more likely to be in family medicine or general practice. Those in the PHMP had greater complaints/registration year than those not being monitored; only the professionalism and medical categories had significantly greater complaints/registration year (0.24, 0.09 vs. 0.07).

A logistic regression model of the predictors of being in the PHMP indicate that older age and a high complaint rate were significant predictors.

# Oral presentation

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Driver

# Application of contextual inquiry to identify contributing factors to hospitalists' burden

## Corresponding author:

Sara Baker Stokes, PhD

University of North Carolina, School of Medicine

[Sara\\_stokes@med.unc.edu](mailto:Sara_stokes@med.unc.edu)

## Co-author(s):

Lukasz Mazur, PhD

Samantha Meltzer-Brody, MD, MPH

## LEARNING OBJECTIVES:

1. Attendees will learn how to apply Contextual Inquiry methodology to identify contributing factors to hospitalists' burnout.
2. Participants will learn how to categorize and prioritize breakdowns and burdens.
3. Attendees will be able to identify improvement interventions aimed to produce meaningful organizational change.

## PROJECT OBJECTIVE/BACKGROUND:

With provider burnout at rampant levels nationally, a large academic healthcare system initiated a Well-being program tasked with developing innovative ways to better understand contributing factors to hospitalists' burnout. A team of researchers conducted a systems analysis guided by survey and Contextual Inquiry methodologies with a goal to suggest improvements predicted to positively affect providers' burnout.

## METHODS/APPROACH:

Qualitative and quantitative data regarding hospitalist work-breakdowns and dis-satisfiers were captured using the following steps:

A 99-item survey covering contributing factors related to professional issues (e.g., performing tasks below licensure, EHR-interactions) and emotional-health measures (e.g., Maslach Burnout Inventory, Patient Health Questionnaire-9) was administered to all (N=85) hospitalists at participating hospitals.

A Contextual Inquiry involving shadowing 8 hospitalists spanning shift-type (e.g., Full-rounding, Admitting), Provider-level (e.g., Attending, Mid-level), and Provider experience (e.g., from greater than 20 years of experience to relatively recent hire).

Focus group sessions allowing 10 pre-selected hospitalists to validate the findings and prioritize most

pressing contributing factors using an iterative voting process. A priority score was calculated by assigning points, in descending value through 4 iterations, to each issue selected, and ranked accordingly.

## RESULTS:

Survey: Overall survey participation rate was 68% (N=58 of 85 hospitalists: academic medical center, 67%, community hospital, 71%). Lack of i) respect (Mean=6.4 on 0-10 point scale, SD=3.06), and ii) collaborative patient care from other groups (6.05, 2.89) rated as contributing to sense of hospitalists' burnout.

Contextual Inquiry: The prioritized contributing factors fell into a complex network of categories generally described by roles and relationships (receiving 33 out of a possible 40 highest-priority votes). These factors describe work-culture breakdowns occurring in sub-optimally defined and/or executed work-roles, and care-team and inter-departmental relationships. Surprisingly, work-processes, technology and tools were not highly prioritized (receiving 6 out of 40 highest-priority votes). These factors arise from sub-optimally implemented work-processes and technology and can be addressed through short-term improvement projects, training, or work-process redesign.

## CONCLUSION:

Employing these varying methodologies (i.e., survey, observations, focus-groups and iterative-voting) produced a remarkably vivid picture of the contributing factors to hospitalist burnout. The factors rated most concerning in the survey, occurred with high frequency in observational data-collection, and received the highest-priority votes. Replicating the process in notably different environments validates the similarity of the hospitalist experience regardless of location, while allowing for local variation. Overall, the data suggest that hospitalists' burnout is mostly related to cultural issues requiring long-term organizational interventions focused on building trust and collegiality.

# Electronic health record usability as assessed by the system usability scale (SUS) and the risk of burnout among U.S. physicians

**Corresponding author:**

Edward R. Melnick, MD, MHS

Yale School of Medicine

[edward.melnick@yale.edu](mailto:edward.melnick@yale.edu)

**Co-author(s):**

Liselotte N. Dyrbye, MD, MHPE

Christine A. Sinsky, MD

Mickey Trockel, MD, PhD

Colin P. West, MD, PhD

Laurence Nedelec, PhD

Michael Tutty, PhD

Tait Shanafelt, MD

## LEARNING OBJECTIVES:

1. Define usability
2. Quantitatively benchmark the EHR's usability to everyday items like an iPhone, Google, a microwave, or Microsoft Excel
3. Identify the potential measurable effect that improving EHR usability would have on rates of physician burnout

## PROJECT OBJECTIVE/BACKGROUND:

To describe and benchmark physician perceived electronic health record (EHR) usability as defined by a standardized metric of technology usability and evaluate the association with professional burnout among physicians.

## METHODS/APPROACH:

Between October 12, 2017, and March 15, 2018, we surveyed a sample of US physicians from all specialty disciplines assembled using the American Medical Association Physician Masterfile. Of 30,456 physicians who received an invitation to participate, 5197 (17.1%) completed surveys. A random 25% of respondents in the primary survey received a sub-survey evaluating EHR usability. Among the 1250 random respondents who received the EHR usability sub-survey, 870 (69.6%) completed all items of the SUS. A secondary survey indicated that participants were representative of U.S. physicians. EHR usability was assessed with the System

Usability Scale (SUS; range 0-100), the industry standard for measurement of technology usability. SUS scores were normalized to percentile rankings across >1300 previous studies from other industries. Burnout was measured using the Maslach Burnout Inventory (MBI).

## RESULTS:

Mean SUS score was 45.9 (SD 21.9) with wide variation by specialty. A score of 45.9 is in the bottom 9% of scores across previous studies and categorized in the "not acceptable" range or with a grade of "F". On multivariate analysis adjusting for age, sex, medical specialty, hours worked per week, and number of nights on call per week, physician perceived EHR usability was independently associated with

the odds of burnout with every 1 point more favorable SUS score associated with a 3% decrease in the odds of burnout (OR 0.97; 95% CI, 0.97-0.98;  $p < 0.001$ ).

## CONCLUSION:

The usability of current EHR received a grade of F by physician users when evaluated using a standardized metric of technology usability. A strong, dose-response relationship between EHR usability and the risk of burnout was observed. Given the association between EHR usability and physician burnout, improving EHR usability has the potential to substantially decrease burnout while working to achieve the quadruple aim for healthcare.

# Exploring internal medicine physicians' physical activity knowledge and personal behavior

**Corresponding author:**

Maryam Sattari, MD, MS

University of Florida College of Medicine

[Maryam.sattari@medicine.ufl.edu](mailto:Maryam.sattari@medicine.ufl.edu)

**Co-author(s):**

Monica Aggarwal, MD

Naykky Singh Ospina, MD

Markus Agito, MD

Ali Ataya, MD

Michael Bubb, MD

Paulette Hahn, MD

Islande Joseph, MD

Gautam Kalyatanda, MD

Martina Murphy, MD

Zareen Zaidi, MD, PhD

Amir Kazory, MD

## LEARNING OBJECTIVES:

1. Recognize the benefits of physician regular physical activity for physicians
2. Recognize the benefits of physician regular physical activity for their patients
3. Be able to discuss improvement of medical curriculum to help combat burnout and promote physician well-being

## PROJECT OBJECTIVE/BACKGROUND:

Physicians' regular physical activity (PA) correlates with decreased burnout and enhanced empathy, career satisfaction, and sense of well-being. Physicians who engage in healthy behaviors are also more likely to promote these behaviors and are perceived by patients as more credible and motivating. Physicians' PA counseling is associated with increased patients' PA and represents an opportunity for disease prevention. Therefore, studying physicians' personal PA habits and knowledge is important as it affects their own health as well as their patients' behavior and health.

We sought to explore PA knowledge and personal behaviors of physicians in the Department of Medicine (DOM) at the University of Florida (UF).

## METHODS/APPROACH:

The UF Institutional Review Board approved this study. Using a 50-item electronic questionnaire, we conducted a cross-sectional survey of faculty and trainees in March 2018. Participation was optional and responses were anonymous.

## RESULTS:

Out of 331 eligible DOM physicians, 303 (92%) responded. Approximately half of the participants (n=149) reported feeling overweight and 2% underweight. Forty-nine percent (n=143) reported being happy with the way they looked, corresponding to 78% of participants who reported normal weight, 22% overweight and 50% underweight. The majority reported knowing what interval training is, but 54% responded incorrectly or were unsure about recommendations of the American Heart Association (AHA) regarding amount of moderate PA. Nearly half (49%) reported exercising only 1-2 hours/week and did not reach the 150 minutes recommended by the AHA.

## CONCLUSION:

Our study suggests that many physicians do not engage in recommended PA and reveals important gaps in their PA knowledge. Our findings might reflect the inadequate undergraduate and graduate medical education in PA. This study highlights the need for significant improvement in education of physicians about PA to not only enhance their knowledge and skills in providing appropriate and accurate counseling for patients, but also empower them with a healthy tool to combat burnout and promote their own well-being.

# Exploring perceptions of work-place technology, work-life conflict and academic pediatrician well-being

## Corresponding author:

Sarah Webber, MD  
University of Wisconsin School of  
Medicine and Public Health  
sawebber@wisc.edu

## Co-author(s):

Jessica Babal, MD  
Kristin Shadman, MD  
Megan Moreno, MD, MPH, MEd

## LEARNING OBJECTIVES:

1. Identify drivers and consequences of work-related technology's influence on academic physician well-being.
2. Describe contextual elements of work-life conflict and opportunities for improvement in an academic setting.

## PROJECT OBJECTIVE/BACKGROUND:

Targeted interventions to promote physician well-being call for a deeper understanding about contributing factors and the contexts in which these factors have impact. Our study sought to better understand factors influencing the well-being of academic pediatricians, related to two known drivers: work-related technology and work-life conflict. Our objectives were to (1) better understand the lived experience of academic pediatricians and perspectives of the factors influencing their well-being, (2) develop a contextual understanding of these factors, (3) identify modifiable factors to inform department-level well-being initiatives at our institution, and (4) support the creation of tailored, actionable items for further study and investigation.

## METHODS/APPROACH:

A trained facilitator conducted semi-structured focus groups with academic pediatricians in June 2018. Prompts explored faculty perceptions of factors contributing to physician well-being. Focus groups were audio recorded, transcribed, de-identified. Qualitative analysis was performed using an inductive approach. Excerpts with codes related to technology and work-life conflict were extracted and analyzed for themes.

## CONCLUSION:

Academic pediatricians in this study largely perceived work-related technology and work-life conflict as negatively impacting well-being. In addition to improvements in the EHR, efforts to improve physician well-being should consider the potential negative influence of other workplace technologies like email and texting. Our study also demonstrates that improvements in work-life conflict may benefit from targeting spillage of work, the role of caregiving and erosion of personal-professional boundaries.

## RESULTS:

54 faculty participated in 9 focus groups. 52% female, 41% subspecialty, 26% general outpatient, 31% inpatient and 2% not reported. Three types of technology were discussed: email (7/9 groups), electronic health record (EHR) (8/9 groups), and texting (1/9 groups). Discussions around technology were generally negative, except two positive comments about the EHR. Faculty discussed driving factors and consequences of technology related to well-being. Five themes emerged related to consequences of work-related technology: (1) Hindered meaningful work, (2) Increased perceived stress, (3) Prevented disconnection from work, (4) Impeded maintenance of physical and mental health, and (5) Interfered with non-work relationships.

Every group discussed work-life conflict. Three main themes emerged, (1) Spillage: encroachment of work into non-work life due to work load, (2) Caregiving: the role of faculty members as caregivers in non-work life, and (3) Erosion: the blurring of boundaries and constant availability due to technology.

# Physician's professional fulfillment, values and expectations of professional life

## Corresponding author:

Kristine Olson, MD, MSc

**Yale School of Medicine and Yale New Haven Health**

[kristine.olson@yale.edu](mailto:kristine.olson@yale.edu)

## LEARNING OBJECTIVES:

1. Review Donabedian's model of quality, the evolution and the role of physician satisfaction.
2. Understand this simulation of the model to explain professional fulfillment.
3. Discuss how this model may inform the popular conversation around burnout, moral injury, disillusionment, a calling, and meaning in work.

## PROJECT OBJECTIVE/BACKGROUND:

Since the landmark work by Dr. Donabedian in 1966, health services researchers have been refining models of health-systems most likely to produce quality outcomes. The interpersonal process of producing quality care entails a satisfying patient-physician relationship. Physician satisfaction has been modeled as professional autonomy in practice-management and clinical decision-making in service to the patient to produce quality outcomes. We hypothesize that this value-system may be fundamental to professional fulfillment.

## METHODS/APPROACH:

In January of 2019 we completed the annual physician wellness survey, having invited 4171 active attending physicians to participate via an email link. Well-being was assessed using the Professional Fulfillment Index (burnout and professional fulfillment). The survey included questions from the Physician Wellness

Academic Consortium, Mini-Z, and additional questions to build the model.

## RESULTS:

Of the 4171 practicing attending physicians invited, 31% responded, and 1277 were included in the study. Physicians who felt that organizational goals and values were consistent with their own, autonomy was sufficient to manage professional and personal responsibilities, patient care was the focus without excessive interruption, teamwork was effective, and they were able to make a meaningful impact in the lives of patients were more likely to report being professionally fulfilled, have the professional life they expected, to work in a quality work-unit, and experience less burnout. Based on the pseudo-R<sup>2</sup>s of these models, they have the potential to explain 29%, 27%, 15% and 23% of the variance around these outcomes respectively. [Tables]

## CONCLUSION:

A healthcare system which is mission-driven (value-aligned), partner with physicians' professional agency and effective clinical teams, to work efficiently with the focus on patient care in order to have meaningful impact in patients' lives seem likely to have professionally fulfilled physicians. Our findings may illuminate why discussions of physician burnout have become synonymous with parallel conversations in the popular press about frontline physicians experiencing "moral injury" and the "disillusionment of medicine", if physicians feel interference with their value-system, their "calling", their expectations for professional life.

# Physician task load and the risk of burnout among U.S. physicians in a national survey

**Corresponding author:**

Elizabeth Harry, MD  
Brigham and Women's Physician Organization  
[eharry@bwh.harvard.edu](mailto:eharry@bwh.harvard.edu)

**Co-author(s):**

Christine Sinsky, MD  
Colin West, MD, PhD  
Maryam Hamidi, PhD  
Mickey Trockel, MD, PhD  
Lotte Dyrbye, MD, MHPE

## LEARNING OBJECTIVES:

1. Describe the concept of cognitive load
2. Explore the relationship between physician task load and burnout rates
3. Describe strategies to decrease extraneous cognitive load

## PROJECT OBJECTIVE/BACKGROUND:

Medicine is complex with extraneous workload impacting the daily flow of healthcare providers. This may contribute to an increased risk of burnout (BO). Cognitive load from complex systems can decrease performance and increase risk of error. This study aimed to evaluate the physician cognitive load (PCL) of a clinical workday in a national sample of U.S. physicians using the NASA-task load index (NASA-TLX) and evaluate its relationship with BO. The NASA task load index is a validated tool to measure perception of workload.

## METHODS/APPROACH:

A national survey of U.S. physicians surveyed during October 2017 to March 2018. Among the responding physicians in active practice, 4622 of 5276 (87.6%) completed at least one question of the NASA-TLX.

The outcome of interest, BO, was measured using the emotional exhaustion (EE) and depersonalization (DP) scales of the Maslach BO Inventory (MBI). The sum of 4 of these domains: mental, physical, temporal demands, effort (ranging 0-100, 100 the highest level of demand

was used to determine the Physician Task Load (PTL) of a clinical work day. Multivariable logistic regression was used to assess the relationship between BO (DP and EE as dichotomous variable) and quintiles of PTL (as well as a separate continuous model of PCL) adjusted for age, gender, hours worked per week, practice setting and specialty.

## RESULTS:

Comparing Quintiles of Physician Task Load and Burnout Rate: A dose response was seen after controlling for hours worked per week, age, gender, practice setting, and specialty with physicians in the top quintile of PTL reporting a 67.8% rate of burnout as opposed to the reference group of the bottom quintile with a 22.1% rate of burnout (OR=7.4, 95% CI 6.01, 9.1,  $p<.0001$ )

Multivariable analysis using PTL as a continuous variable: (adjusting for the same variables) a 40 point (10%) decrease in average sum PTL score was associated with 33% lower odds of experiencing burnout (OR=0.67, 95% CI 0.65-0.70,  $p<.0001$ )

## CONCLUSION:

This is the first national study to evaluate the PCL associated with the daily clinical work of US physicians. Though PCL varied by specialty and setting, we found that it was strongly associated with the risk of BO independent of age, gender, practice setting, specialty and hours worked per week. These observations suggest utility of testing interventions designed to reduce PCL or mitigate risk of burnout when high PCL is unavoidable.

# The impact of sleep-related impairment on burnout in urologists: Results from a national consortium study

## Corresponding author:

Daniel Marchalik, MD, MA

MedStar Health

[daniel.marchalik@medstar.net](mailto:daniel.marchalik@medstar.net)

## Co-author(s):

Jacob Brems, MD

John Lynch, MD

Charlotte Godlman, MD

Christopher Pellegrino, MD

Jenna Dickman, MD

Ross Krasnow, MD, MPH

## LEARNING OBJECTIVES:

1. Describe the extent of burnout and professional fulfillment in urology faculty and trainees
2. Recognize the impact of sleep-related impairment and self-compassion on burnout and fulfillment
3. Identify the difference in the effect of sleep impairment on trainees versus faculty urologists

## BACKGROUND:

Although sleep-related impairment and low self-compassion have been previously linked to increased burnout and decreased professional fulfillment, no studies have been conducted on the effects of sleep-related impairment and self-compassion on urologists.

## METHODS:

Data was collected through a standardized electronic survey administered to 11 academic medical institutions participating in the Physician Wellness Academic Consortium (PWAC). All faculty and residents were eligible to participate. Burnout, professional fulfillment, sleep and self-compassion scales were examined.

Data on physicians and residents were summarized using descriptive statistics. Bivariate analyses were conducted using two-sample t-tests and chi-square/Fisher's exact test as appropriate. The odds ratios of experiencing burnout were estimated using logistic regression models on the combined dataset of physicians and residents by including provider type (physician vs resident), sleep impairment status, professional fulfillment and self-compassion (from -4 to 0 indicating higher self-compassion towards zero) as independent variables.

## CONCLUSION

The effect of sleep-related impairment on burnout in urologists and high levels of sleep-related impairment in urology trainees is concerning. This demonstrates the need for evaluating organizational policies that surround these issues.

## RESULTS:

The overall PWAC response rate was approximately 63%. From this sample, 39 residents and 60 physicians identified themselves as urologists. Burnout was present in 37% of faculty and 51% of resident urologists ( $p=0.17$ ); professional fulfillment in 45% of faculty and 28.2% of resident urologists ( $p=0.09$ ). Moderate to high intention to leave was seen in 33% of faculty, 14% of residents ( $p=0.04$ ). Sleep-related impairment was present in 44% of faculty and 82% of residents ( $p<0.001$ ). Burnout rates were significantly higher among those with sleep impairment for both physicians (65% vs 11%,  $p<0.001$ ) and residents (61% vs 0%,  $p=0.003$ ) (Figure 1).

Professional fulfillment was present in only 9% of faculty and 15% of trainees with burnout vs. 68% and 42% without, respectively, ( $p<0.001$ ,  $p=0.06$ ). Mod/high likelihood of leaving was seen in 46% of faculty and 11% of trainees with burnout vs 25% and 16% without, respectively, ( $p=0.11$ ,  $p=0.53$ ).

On multivariable logistic regression of burnout adjusted for provider type, the presence of sleep-related impairment was associated with significantly increased likelihood of burnout (OR=14.8; 95%CI 4.1-53.2;  $p=0.002$ ). Meanwhile, each one unit increase in self-compassion score was associated with 53% decreased odds of burnout (OR=0.47; 95%CI 0.25-0.91;  $p=0.02$ ).

# The views we hold and the words we use: Assessing perceptions and preferred lexicon as the first step in wellness program development

## Corresponding author:

Karen Horneffer-Ginter, PhD  
Western Michigan University Homer Stryker, MD School of  
Medicine  
[karen.horneffer-ginter@med.wmich.edu](mailto:karen.horneffer-ginter@med.wmich.edu)

## Co-author(s):

Jeff Greene, PhD  
Roger Apple, PhD  
Lisa Graves, MD  
Kristine Gibson, MD  
Julia Tullio, BSc  
Adrienne Kaufman, MS

## LEARNING OBJECTIVES:

1. Identify the value of assessing wellness-related perceptions and preferred lexicon as an initial step in wellness program development within a health care organization.
2. Explain the relevance of addressing self-care, self-compassion, and emotional disclosure as predictors of physician burnout.
3. Plan a focus-group/survey methodology to assess wellness-related perceptions and preferred lexicon in their organization.

In response to national concerns about burnout, many health care organizations and medical schools have been initiating wellness programming focused on both individual and institutional factors. A key to the success of these efforts is having sufficient engagement from targeted audiences. Reaching out to these individuals to gather input and share responsibility for creating a lexicon can increase investment. Engagement is especially important when it comes to several predictors of burnout that have often been ignored within the traditional “iron doc” culture of medicine: self-care, self-compassion, and emotional self-disclosure. A two-step process was used to gather information. First, a focus-group methodology asked medical school faculty (n=12) and students (n=9) to discuss advantages and disadvantages of terms regarding the mentioned burnout predictors. Thematic analysis using grounded theory was used to analyze focus group transcriptions with the generated preferred terms being incorporated into a follow-up survey administered to all employees (including faculty) and students. Surveys, which asked for ranked preferences of lexicon terms, perceptions of wellness importance and engagement, feelings of judgement and guilt around attempting work-life balance, and disengagement and exhaustion via the Oldenburg Burnout Inventory, were completed by 23 faculty, 65 students, 23 residents, and 124 staff (n=235). Overall, results revealed a favoring of alternative language compared to phrases commonly used in

the wellness literature. For example, personal well-being was preferred over self-care and more informal phrases (e.g., “be kind to yourself,” “share your feelings”) were preferred over self-compassion and disclosing emotions. Perceptions of being judged and feeling guilty for attempting work-life balance were positively correlated with burnout ( $p < .01$ ), while engagement in self-care and self-compassion were inversely correlated with burnout ( $p < .01$ ). Narrative comments revealed perceived obstacles to engaging in wellness activities and named climate factors contributing to guilt and perceived judgment when attempting engagement. These findings, along with preferred terms that differ from those used in wellness research, suggest that wellness interventions should be crafted to meet the needs of the local organization. As shown by this study, gathering focus group and survey data regarding relevant perceptions and wording can be a valuable initial step for health organizations endeavoring to create and implement physician burnout interventions and wellness programs.

# Using the results of a cross-sectional physician wellness survey to model multiple outcomes to inform interventions to support physician well-being

**Corresponding author:**

Sam Van Horne, PhD  
**Christiana Care Health System**  
[samuel.a.vanhorne@christianacare.org](mailto:samuel.a.vanhorne@christianacare.org)

## LEARNING OBJECTIVES:

1. State how a set of survey predictors are useful for modeling outcomes related to physician well-being.
2. Describe how the work environment affects physician well-being.
3. Describe one application of multi-level modeling in a study of physician well-being.

## PROJECT OBJECTIVE/BACKGROUND:

Physician burnout is a crisis that is concerning both for the health of physicians themselves and for hospitals and the larger health-care system, as increased levels of burnout are associated with negative outcomes for patients (Rathert et al., 2018) and increased cost due to physician turnover (Hamidi et al., 2018). Although prior research has focused on describing physician burnout rates, less attention has been paid to examining other outcomes related to physicians' experiences such as Control of Schedule or Professional Fulfillment. The objective was to examine these outcomes and find the best predictors to inform interventions to support physician well-being.

## METHODS/APPROACH:

Data were collected from a cross-sectional survey developed by the Physician Wellness Academic Consortium. The instrument included questions about demographic characteristics; specialty; work environment; positive perceptions of the electronic health record (EHR); and a variety of constructs that were outcome variables, such as Burnout, Control of Schedule, Professional Fulfillment, Alignment of Values,

Quality of Leadership, Peer Support, and Meaningfulness of Clinical Work. Descriptive statistics were computed, and linear mixed models were used to find the best predictors for each outcome while adjusting for differences among specialties.

## RESULTS:

Four variables emerged as the most consistent predictors. Positive views of the EHR were associated with several outcome measures, including lower Burnout and with increases in Control of Schedule, Professional Fulfillment, Alignment of Values, Peer Support, and Meaningfulness of Clinical Work. Three additional variables—depression, anxiety, and sleep impairment—were associated with increases in Burnout and decreases in Professional Fulfillment. Demographic and work-environment factors were rarely significant predictors after these four predictors were tested. In Table 1, arrows show direction of effect (e.g., as depression increases, so does level of burnout).

**Table 1.** Predictors of Outcomes in Survey and Direction of Effect

Outcome	Depression	Anxiety	Sleep Impairment	Positive Views of EHR
<b>Burnout</b>	↑	↑	↑	↓
<b>Control of Schedule</b>			↓	↑
<b>Professional Fulfillment</b>	↓	↓	↓	↑
<b>Alignment of Values</b>				↑
<b>Quality of Leadership</b>			↓	
<b>Peer Support</b>	↓			↑
<b>Meaningfulness of Clinical Work</b>	↓		↓	↑

## CONCLUSION:

Correcting for the variation among specialties highlights malleable factors that can be modified to activate health-system change and improve the work experiences of physicians. The results of these analyses suggest that it is critical to structure interventions not only to help physicians experiencing depression or anxiety but also to help physicians work more productively with the electronic health record.

# Oral presentation

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Innovation/Initiative

# Burnout and work-life balance in health care: System level initiative of heartfulness meditation conference

**Corresponding author:**

Jayaram Thimmapuram, MD, MRCP

Wellspan York Hospital

[drthimmapuram@yahoo.com](mailto:drthimmapuram@yahoo.com)

**Co-author(s):**

Rodney Grim, PhD

Theodore Bell, MS

Mark Lavalley, MD

Mihir Modi, DO

Ridgely Salter, MD

## LEARNING OBJECTIVES:

1. Recognize major factors influencing work-life balance and the key drivers of burnout.
2. Develop ways of implementing system level initiatives of wellness practices to combat burnout.
3. Discuss the impact of heartfulness meditation on burnout and integrate those skills into daily practice.

## PROJECT OBJECTIVE/BACKGROUND:

Burnout levels have risen in recent years and satisfaction with work-life balance has decreased. Individual and organizational factors may affect burnout in health care professionals. Meditation is a tool to mitigate stress and enhance wellbeing. In this study, we measured the impact of a half-day heartfulness meditation conference on burnout. We also assessed the factors affecting work-life balance in physicians and advanced practice clinicians (APCs).

## METHODS/APPROACH:

Physicians and APCs were surveyed through an abbreviated Maslach Burnout Inventory (aMBI) to assess the burnout levels and a question on factors influencing work-life balance. Wellness initiatives included either attending a heartfulness meditation conference or reading a book about burnout and wellness. A repeat aMBI survey was sent eight weeks after the conference. Pre- and post-burnout scores were assessed.

## CONCLUSION:

There is a significant level of burnout among health care professionals. Workload, workflow, and staffing are major factors that affect work-life balance. Heartfulness meditation conference was associated with a statistically significant decrease in emotional exhaustion in those aged 30-50. There was no significant change seen in the non-conference/book reading group.

## RESULTS:

In total, 530 of 1393 physicians and APCs responded to the aMBI. 54% were female. There were 414 comments (663 factors) on work-life balance. Among the respondents, 60.5 % and 32 % had symptoms of moderate to severe emotional exhaustion and depersonalization respectively. Twenty-eight percent of the respondents had symptoms of moderate to low personal accomplishment. The major factors impacting work-life balance included workload, workflow, scheduling, administration and meetings, time/time-off, staffing and self-care. A follow up aMBI survey was completed by 79 from the conference group and 264 from the non-conference group. In the conference group, between the age groups 30-50, mean emotional exhaustion scores decreased from 9.8 to 8.6 with statistical significance. ( $n=40$ ;  $p=.014$ ). There was no statistically significant change in the non-conference group in any age group.

# Coaching for primary care physicians: Results of a positive psychology approach for improving well-being and reducing burnout

## Corresponding author:

Les Schwab, MD

**Atrius Health**

[Leslie\\_Schwab@atriushealth.org](mailto:Leslie_Schwab@atriushealth.org)

## Co-author(s):

Heidi Duskey, MS

Alyssa McGonagle, PhD

Nancy Yahanda, EdD

## LEARNING OBJECTIVES:

1. Understand the process of coaching as an intervention for physicians, in distinction to training or mentoring
2. Demonstrate the effectiveness of a brief intervention to reduce physician burnout and increase resilience
3. Understand the translation of resilience into actionable responses to today's practice environment

## PROJECT OBJECTIVE/BACKGROUND:

Burnout is prevalent among American physicians, and primary care physicians (PCPs) have consistently shown among the highest levels of burnout of medical specialties. It is costly – to the physicians' own well-being and to healthcare provision itself: physicians experiencing burnout are more likely to make medical errors, to have lessened patient satisfaction, and to reduce their workload or leave their jobs/profession altogether. Accordingly, physicians need to recover agency to reduce burnout and build resilient personal and workplace practices. Individualized coaching has been shown to be an effective method for the realization of personal goals in other fields. We posited that coaching could provide several advantages over other types of interventions (e.g., mindfulness, stress reduction) for PCPs, could be delivered economically, and result in measurably and sustainably improved components of personal resilience and professional satisfaction.

## METHODS/APPROACH:

We recruited 60 PCPs from four Greater Boston medical practices. They were randomized into early intervention and waitlisted (control) groups. The coaching intervention consisted of a one-hour, in-person first session and 5 subsequent telephonic half hours, a total of 3.5 hours spread over 3 months. Five

professional coaches delivered the services, each having an extensive healthcare experience. Evidence-based coaching tools, based on positive psychology principles, were integrated into the intervention. Eight evidence-based psychological scales were chosen as experimental variables. Both groups were surveyed at baseline (after randomization) and at 3 months, for the primary, controlled comparison. The control group also got coached after 6 months' wait; both groups were surveyed 3- and 6-months post-coaching. Anecdotal questions about the coaching experience and subsequent application were collected with the first-post coaching survey.

## RESULTS:

We found significant differences ( $p < .05$ ) at 3 months between intervention and control groups for burnout, psychological capital, engagement and job satisfaction. These scale results were stable at 3- and 6-months post-intervention for the combined groups. Favorable changes, near significance, were seen for turnover intentions and job stress. No effect was found for compassion or job self-efficacy. Participants reported a wide range of applications including: personal resilience practices, enhancement of the meaningfulness/enjoyment of their work, teamwork, and workflow process improvement.

## CONCLUSION:

We have demonstrated the effectiveness of a brief and economically scalable coaching intervention for PCPs that can reduce burnout and build resilience. These benefits appear to be stable over a 6-month period. The application of insights gained through such personal coaching can support actions directed toward lifting the burdens of physician burnout.

# Creating health system processes to improve physician well-being and patient outcomes: A case study of colorectal cancer screening

## Corresponding author:

Tracy Imley, MD

Southern California Permanente Medical Group

[tracy.m.imley@kp.org](mailto:tracy.m.imley@kp.org)

## Co-author(s):

Dawn Clark, MD

Kim Danforth, ScD, MPH

Nancy Gin, MD

Tim Ho, MD, MPH

Michael Kanter, MD

Katie Massoudian, MD

## LEARNING OBJECTIVES:

1. List four ways organization structure can reduce physician workload
2. Cite how to improve physician well-being
3. Cite how to improve colorectal cancer screening (CRCs)

## PROJECT OBJECTIVE/BACKGROUND:

While electronic health records (EHRs) have important advantages for patient care, they also contribute substantially to physician burnout. Nearly half of physicians report >1 burnout symptom. Burnout rates are highest among front-line physicians, including primary care physicians (PCPs). EHRs have the potential to support systems that reduce physician burnout by reducing their workload for routine tasks. CRCs is a time-intensive, repetitive task requiring PCPs to review patient records to determine if a screening test is indicated, order tests, notify patients of results, and order follow-up tests as applicable. This physician-reliant process creates opportunities for delays or misses in CRCs. To improve CRCs and reduce physician workload, we leveraged EHR data and implemented a team-based approach to CRCs.

## METHODS/APPROACH:

In an integrated healthcare delivery system serving >4.5 million patients, we implemented several infrastructure changes to improve CRCs efficiencies from 2006-2018. First, we created an EHR alert to flag patients due for CRCs at an appointment, making back office

staff responsible for pending CRCs orders. Second, we created a centralized outreach program, independent of clinic visits, that notified patients due for CRCs and mailed them a fecal immunochemical test (FIT) kit, with automated and then live reminder calls for unreturned FIT kits. Third, our patient portal was modified so patients could see if they were due for CRCs and request a FIT kit be mailed to them. Finally, in April of 2017, management of results from these centrally ordered FIT tests were reassigned from PCPs to central staff, who notified patients of results and forwarded abnormal results to gastroenterology, ensuring quick, appropriate follow up while decreasing PCP workload.

## RESULTS:

In 2018, 557,642 FIT kits were sent to patients through our centralized CRCs program and 53% were completed. Using the online portal, 24,796 patients self-ordered a FIT kit. These systems yielded 283,853 negative FIT results that bypassed the PCPs inbox, handled instead by a central team. 94% of physicians were satisfied with this system to capture and manage FIT results, and from 2006-2018 CRCs rates improved from 52% to 82%.

## CONCLUSION:

Leveraging EHR data, back office staff, and centralized processes can reduce physician workload and burnout while increasing CRCs rates. We plan to use similar methodology for other screening exams, such as bone density and breast cancer screening.

# Effect of a professional coaching intervention on physician well-being and distress: A randomized clinical trial

**Corresponding author:**

Liselotte N. Dyrbye, MD, MHPE

**Mayo Clinic**[Dyrbye.Liselotte@mayo.edu](mailto:Dyrbye.Liselotte@mayo.edu)**Co-author(s):**

Tait D. Shanafelt, MD

Priscilla R. Gill, EdD

Daniel V. Satele

Colin P. West, MD, PhD

**LEARNING OBJECTIVES:**

1. Describe the outcome of a randomized trial of professional coaching on physician well-being
2. Explain the differences between coaching, mentoring, and peer support
3. List established metrics used to measure physician well-being

**PROJECT OBJECTIVE/BACKGROUND:**

Burnout symptoms among physicians are common and have potentially serious ramifications for physicians and their patients. Few interventions to address burnout have been conducted to date. Coaching, mentorship, and peer support are three distinct approaches that have been proposed to reduce burnout. Coaching is distinct from mentorship and peer support and involves inquiry, encouragement, and accountability to raise self-awareness, motivation, and capacity to take effective action. Professional coaching has been associated with improved retention, inter-personal relationships, job satisfaction, organizational commitment, ability to manage complexity, and communication skills, but its impact on physician burnout has not been explored.

**METHODS/APPROACH:**

Between October 2017 and March 2018 we conducted a randomized clinical trial involving 88 practicing physicians in the Departments of Medicine, Family Medicine, and Pediatrics working at Mayo Clinic sites in Arizona, Florida, Minnesota, and Wisconsin. The intervention involved 6 coaching sessions facilitated

by a professional coach. Burnout, quality of life (QOL), resilience, job satisfaction, engagement, and meaning at work using established metrics.

**RESULTS:**

After 6 months of professional coaching, emotional exhaustion decreased by 5.2 points in the intervention arm compared to an increase of 1.5 points in the control arm by the end of the study ( $p < .001$ ). Rates of high emotional exhaustion at 5 months decreased by 19.5% in the intervention arm and increased by 9.8% in the control arm ( $p < .001$ ). Rates of overall burnout at 5 months also decreased by 17.1% in the intervention arm and increased by 4.9% in the control arm ( $p < .001$ ). QOL improved by 1.2 points in the intervention arm compared to 0.1 points in the control arm ( $p = .005$ ) and resilience scores improved by 1.3 points in the intervention arm compared to 0.6 points in the control arm ( $p = .04$ ). No statistically significant differences in depersonalization, job satisfaction, engagement, or meaning in work were observed.

**CONCLUSION:**

Professional coaching may be an effective way to reduce emotional exhaustion and overall burnout as well as improve QOL and resilience for physicians. This intervention adds to the growing literature of evidence-based approaches to promote physician well-being, and should be considered in the context of other organizational approaches to improve system-level drivers of work-related stressors.

# How the creation of an “inboxologist” returned joy to the practice of medicine

## Corresponding author:

Edwin Solarazono, MD

Southern California Permanente Medical Group

[Edwin.J.Solarzon@kp.org](mailto:Edwin.J.Solarzon@kp.org)

## LEARNING OBJECTIVES:

1. To understand the organizational benefits of a physician inbox management program
2. To learn how standardized workflows can help manage large volumes of inbox items

## PROJECT OBJECTIVE/BACKGROUND:

To reduce physician burnout and increase joy in medicine we provided real time coverage for a group of doctor's inboxes which allowed increased time for direct patient care in a cost-conscious way, bringing JOY to the practice of medicine.

## METHODS/APPROACH:

One “inbox doctor”, working from home, using standardized, agreed upon evidence-based protocols covered ten full time physician inboxes. Actionable items included prescription refill requests, management of laboratory and imaging results, and filling out electronic forms. The Inbox doctor worked with two dedicated LVNs, who executed protocol instructions including entering and signing orders for medications, placing future lab tests, ordering referrals, calling in refills to outside pharmacy, and calling members with specific scripting based on the physician's recommendations. With LVN's working at the top of their scope of practice RN's could focus on work such

as triage, medication titration for diabetes and diabetic foot exams. No additional staff members were hired to execute this program, but in order to make the program cost neutral, each participating doctor had to see one extra patient each half day.

## RESULTS:

After 18 months, physician participants had positive comments about the program citing a “significantly reduced workload”. There was an overall 12% reduction of message volumes secondary to real time management of messages which eliminated back and forth communications. We saw a 20% reduction in lab volume secondary to standardizing evidence-based ordering for healthy patients. Finally, a 2% decrease in “no show” rate was attributed to handling problems immediately, thereby decreasing potentially unnecessary follow up appointments. Physicians comments were overwhelming positively, (see attachment one).

## CONCLUSION:

We successfully reduced variability of practice using cost effective, current, evidence-based medicine while saving office space by creating “inboxologists”. Implementation of this program brought physicians who generally work in isolation together to work in teams and fostered a sense of trust, collegiality and camaraderie to improve patient care. LVN's and RN's were able to work at high levels and contribute to the overall team dynamics in a meaningful way. An “inboxologist” may be a desired position for those seeking flexibility for a variety of reasons including becoming a new parent, suffering from a short or long-term mobility disability, or having a long commute. We hope to continue to monitor the quality of care, patient satisfaction and clinician satisfaction as we grow this program.

# “I will never consult that doctor again ... they always yell at me”: The efficacy of system wide collegiality programs on physician well-being

## Corresponding author:

Sunit D. Mistry, MD

**SCPMG, South Bay Medical Center**

[sunit.d.mistry@kp.org](mailto:sunit.d.mistry@kp.org)

## Co-author(s):

Shefali Khandhar Mody, MSOD

Abtin Foroohar, MD

Barbara A. Carnes, MD

Dawn R. Clark, MD

Mark Song, MD

## LEARNING OBJECTIVE:

To understand how a large healthcare system used a collegiality program to create positive change in physician workplace culture.

## BACKGROUND:

Improved physician wellbeing is correlated with better patient outcomes, improved patient experience and reduced cost. Part of wellbeing is the sense of fulfillment that physicians enjoy from their relationships with each other. Institutional commitment to a culture of collegiality promotes inter-physician and inter-departmental relationships while mitigating isolation. Collegiality leads to a more joyful practice.

## METHODS/APPROACH:

In 2016, 363 physicians in a large integrated medical center participated in a collegiality survey. The survey looked at relationships of physicians within a department (intradepartmental), quality of working relationship across departments (working relationship), responsiveness of providers to calls/pages (responsiveness), follow up of departments with patients (follow up), departments' teaching and assisting other departments (teaching and assisting), and departments treating other departments' providers with respect (respect).

A system wide, leadership supported collegiality program was then instituted. This included a single four-hour workshop between departments focusing on team

building and discussion of case studies specific to those departments. Case studies exemplified opportunities in interdepartmental interactions to promote better collaboration. In addition, leadership development content centering on the importance of trust, transparency and empathy as core values of collegiality were incorporated into the workshop. Opportunities for improved interactions were summarized into formal inter-departmental collegiality agreements. The collegiality survey was repeated in 2018 to assess for culture change with 192 physician responses.

## RESULTS:

The follow-up collegiality survey showed overall improvement, with the most dramatic growth seen in the lowest scoring departments. Geriatrics/Palliative Care saw a 26-point improvement in the quality of their working relationship with other departments, Bariatric surgery saw a 23-point improvement in responsiveness to pages/calls, Gastroenterology saw a 13-point improvement in teaching/assisting other colleagues, and General Surgery and Bariatric Surgery showed an increase in treating others with respect by 20 and 35-points, respectively.

## CONCLUSION:

A system wide collegiality program with strong leadership support may lead to a culture change in the physician work environment, emphasizing respect, collaboration and team work. Together, these factors may help doctors build a more meaningful and joyful practice environment. The relationship between improved collegiality and quality of patient outcomes is a potential subject of future studies.

# Leading from the heart: Creating a culture of leadership wellness

**Corresponding author:**

Kent Miyamoto, MD

**Kaiser Permanente, San Bernardino County**[Kent.K.Miyamoto@KP.org](mailto:Kent.K.Miyamoto@KP.org)**Co-author(s):**

Alejandra Clark, MD

Dora Rodriguez, MD

Siu Wang, MBA

**LEARNING OBJECTIVES:**

1. Recognize the unique challenges and stressors affecting the wellness of our physician leaders
2. Developing empathic leaders and a culture of support among physician leaders
3. Facilitated role play with professional actors to practice challenging leadership communication scenarios

**PROJECT OBJECTIVE/BACKGROUND:**

The wellness of our physician leaders affects their ability to lead effectively. Physician leaders are faced with high expectations and are particularly vulnerable to stress. They may feel isolated from their peers and lack avenues of support. Difficult conversations with colleagues navigating issues such as making partnership, developing corrective action plans and supporting colleagues with personal/social issues are challenging. Addressing leadership wellness and developing communication skills that will promote wellness in the colleagues they lead is crucial to achieving well-being of the entire physician group.

**METHODS/APPROACH:**

In 2018, a half day program was created to discuss and address some of these issues for leaders of a large complex healthcare organization. The program focused on open discussion of the stressors of leadership in a safe and supportive environment. The program fosters an environment of vulnerability and sharing promoting the leadership group as its own source of support. A presentation highlighting empathic leadership and facilitated role plays with professional actors was utilized to simulate challenging leadership communication scenarios. Observation of the role plays

prompted questions, discussion and feedback from the leadership group on how to best support the wellness of the physicians they lead.

**RESULTS:**

This program was presented twice in 2018. Participants were surveyed electronically after the program. Two questions were asked:

- How important is leadership wellness for an organization's success?
- Was the program useful and applicable for your role as a leader?

**RATING (1-5):**

1. Not at all important (useful)
2. Not so important
3. Somewhat important
4. Very important
5. Extremely important

Of 16 participants responding to the survey, 100% (16/16) responded that leadership wellness was extremely important for the organization's success. 93.75% (15/16) responded that the program was extremely useful (7/16) or very useful (8/16).

**CONCLUSION:**

Leadership wellness is crucial for organizational success. Physician leaders face high organizational and self-expectations, isolation and are required to have challenging conversations with colleagues. The wellness of the leader directly impacts the wellness of the physicians they lead. Empathic leadership and communication can be learned and practiced.

# Making SPACE\* for what matters most: Analyzing the effects of an intervention to enhance professional fulfillment and leadership skills, and to prevent and mitigate burnout

## Corresponding author:

Eva Weinlander, MD  
Stanford University School of Medicine  
[evaew@stanford.edu](mailto:evaew@stanford.edu)

## Co-author(s):

Jessie Kittle, MD  
Maria Juarez-Reyes, MD, PhD  
VJ Periyakoil, MD

## LEARNING OBJECTIVES:

1. Participants will learn the scaffolding of an innovative program created to promote physician fulfillment and decrease burnout
2. Participants will understand how qualitative analysis is used to demonstrate the impact of a longitudinal physician wellness initiative
3. Participants will be able to define the elements identified through qualitative analysis that has made SPACE a unique outlet for self-reflection, self-compassion, learning and connection

## PROJECT OBJECTIVE/BACKGROUND:

The 9-month Tending your NEST and Making SPACE\* train the trainer program was created by the Stanford University Department of Medicine to mitigate burnout and promote wellness among its faculty. Along with a curriculum of readings, talks, and coaching tools, SPACE provides a supportive monthly gathering/training for participating faculty. The goal is for physician participants to develop skills, behaviors and attitudes that promote physical, emotional and professional well-being and contribute to resilience and leadership. The effect is tracked through mandatory learning narratives written by participants.

## METHODS/APPROACH/METHODS:

We have received a seed grant to perform a retrospective qualitative analysis, using NVivo, of two SPACE faculty cohort's (2017, 2018) personal written narrative assignments. The software allows for coding of themes and content across the 138 data records (46 participants x 3 time points each), during the 9-month program. We will focus on changes in themes and content, and differences in changes based on specialty, age and gender. Outcomes will allow us to evaluate the broad impact of SPACE and further refine it.

## CONCLUSION:

We will present our qualitative analysis of SPACE participant narratives and share the impact of the SPACE program on multiple domains of physician wellness including burnout, well-being, self-care activities, work-life integration, and patient care. We will discuss how what we have learned will allow for continued refinement of the SPACE curriculum, and offer insights to facilitate its broader implementation.

## NARRATIVES ADDRESS:

1. Elements of career fulfillment, such as burnout, work/life balance, engagement during clinical work, commitment to patients, clarity regarding priorities, and sense of meaning and purpose.
2. Self-care activities, particularly the NEST components (Nutrition, Exercise, Sleep, Time Management).
3. Personal wellness components, including measures of quality of life, depression, anxiety, and self-compassion.

## RESULTS:

Qualitative analysis results are expected to be complete by June 2019. Anecdotally, faculty participating in SPACE have been extremely engaged, describing it as a unique outlet for reflection, self-compassion, learning, and connection. One participant stated: "Before beginning the program, I felt that that my career was ending, I was ready to give up, to go down the pathway towards retirement; SPACE gave me the room to contemplate and articulate my passion for patient care and research. As a result, I'm committed to building the next, crowning phase of my Stanford career."

\* Tending your NEST (Nutrition, Exercise, Sleep, Time-management) and Making SPACE (Stillness, Presence, Appreciation, Compassion, Equanimity) for What Matters Most <http://medicine.stanford.edu/faculty/professionalDevelopment.html>

# Many paths to the same destination: Utility of a brief engagement survey to assess workplace well-being

## Corresponding author:

Megan Call, PhD

University of Utah Health

[megan.call@hsc.utah.edu](mailto:megan.call@hsc.utah.edu)

## Co-author(s):

Amy Locke, MD

Ellen Morrow, MSCI

David Webber

Robin Marcus, PhD

Blake Hamilton, MD

## LEARNING OBJECTIVES:

1. Summarize the results from our engagement survey study.
2. Describe the importance of including well-being items in engagement surveys.
3. Consider how to use engagement data to drive well-being intervention at their own institution.

## PROJECT OBJECTIVE/BACKGROUND:

Employee engagement is regularly assessed within academic medical centers. Our organization used a new, brief survey tool that included items to measure satisfaction, communication/advancement, access to resources, and well-being among providers. Our study examined the potential utility of this instrument for understanding provider well-being and guiding system-level intervention at our institution.

## METHODS/APPROACH:

The Waggl<sup>TM</sup> online platform was used to administer customized questions to physicians and advanced practice clinicians (APCs) working in an academic medical center. This instrument consisted of 11 quantitative items and 1 qualitative item. The quantitative items were rated using a 5-item agreement scale (1 = strongly disagree, 2 = disagree, 3 = neutral, 4 = agree, 5 = strongly agree). The qualitative item was: "What would make you feel more appreciated at work? How would this be impactful?"

The analyses and results described below involve only the quantitative items. Burnout and work-related stress rates were generated by calculating frequency.

## CONCLUSION:

Provider burnout rates were similar to previous burnout rates generated from a larger, validated well-being survey administered at our institution. The relationship determined between communication, burnout and job satisfaction is also similar to previous research. These findings demonstrate the potential utility of using brief engagement surveys to gather information on provider well-being. This may be particularly helpful for medical groups or centers who are unable to administer their own well-being survey.

Groups differing in burnout and work-related stress were compared using a chi-square test. A composite communication score was generated by summing items evaluating communication, including: 1) My immediate supervisor keeps me informed; 2) I can express my opinions without fear of retribution; and 3) My input is sought, heard and considered. Logistic regression analyses were used to evaluate the relationship between this composite score and burnout and satisfaction items.

## RESULTS:

Of the 1471 providers surveyed, 618 (42%) responded. The majority of providers (95%) reported being motivated to do their best work almost every day. APCs (n = 97) had a higher burnout rate (33%) than physicians (n = 521, 29%). Respondents that endorsed high burnout (n = 190) and/ or high stress (n = 74) responded to all survey items differently than respondents with low burnout (n = 425) and/ or low stress (n = 542; for all items,  $p < .01$ ). The  $r^2$  value for the relationship between composite communication score and rates of burnout and satisfaction were 0.16 and 0.42 respectively.

# Peer-to-peer recognition: A simple strategy to promote wellness among physicians

## Corresponding author:

Helen Kim, MD

Kaiser Permanente

[Helen.Joo.Kim@kp.org](mailto:Helen.Joo.Kim@kp.org)

## Co-author(s):

Shane K. Williams, MD

Shanee Porter, MD

Leslie Menchaca, MPH

Dawn R. Clark, MD

## LEARNING OBJECTIVES:

1. How to roll out a simple, low cost collegiality program to improve well-being of physicians.
2. A strategy to increase survey return rates.

## BACKGROUND:

Being a physician can both gratifying and demanding professions. As demands on physicians continue to grow, the rate of physician burnout remains high. Peer to peer support is essential in addressing physician burnout. Physicians at our hospital developed a simple method of peer-to-peer recognition. We noted that a 2017 survey report conducted by the Workhuman Research Institute found that recognition at work benefits not only the recipient but also the individual who is giving the recognition

## METHODS/APPROACH:

The physician wellness committee, supported by leadership created Peer-to-Peer Recognition Cards for physicians. During a business meeting, physicians were encouraged to address cards to peers that they authentically wanted to recognize. These cards were made readily available at the meeting as well as in the administrative suite. 48 hours the intervention a follow up survey was sent to the physicians. Cards were collected and delivered to the physician peer within one week. A LifeSaver mint was attached to each card.

## CONCLUSION:

In our medical center normal survey response rates are 27-32%. The introduction of an intervention at a meeting attended by most physicians and a survey sent out 48 hours after intervention boosted our response rate in primary care and surgical specialties to 58% and 56% respectively. We propose a simple yet effective method to recognize one's peers, resulting in an overall positive work environment. Future areas of focus include surveying recipients of the recognition cards, optimizing smartphones and electronic devices to promote ease of peer-to-peer recognition as well as finding additional opportunities to secure high participation and feedback from physicians.

## RESULTS:

After the physician peer-to-peer recognition program was implemented, a survey was conducted with the following questions: 1) Do you feel that recognizing your peers and their contributions has had a positive effect on you? 2) Do you believe that peer recognition is a useful activity for promoting collegiality? 113 primary care physicians received the survey, 66 of these physicians completed the survey. 85.48% of respondents felt that recognizing their peers and their contributions had a positive effect on them. Among the 203 physicians in surgical subspecialties who received the survey, 115 surveys were completed. 87.61% of respondents felt that recognizing their peers had a positive effect on them personally. In addition, 95.16% of the primary care physicians and 90.27% of surgical specialties felt that peer recognition was a useful activity for promoting collegiality.

# Pilot project to increase patient appointment times in an outpatient primary care internal medicine practice

## Corresponding author:

Carrie A. Horwitch, MD, MPH, MACP

Virginia Mason Medical Center

[carrie.horwitch@viriniamason.org](mailto:carrie.horwitch@viriniamason.org)

## LEARNING OBJECTIVES:

1. To be able to initiate a pilot project in your organization
2. To identify organizational areas to improve for physician well-being
3. To be able to maintain quality improvements for physician well-being

## PROJECT OBJECTIVE/BACKGROUND:

One of the key drivers to burnout among physicians is insufficient time with patients. In busy outpatient care settings clinicians see complex medical patients but do not always have enough time to address multiple concerns, complete documentation in a timely fashion and have time for contemplative decision making. Many practices have moved to 20/40 min or 15/30 min appointment scheduling to try and increase the number of patient visits. The decision for the appointment type is typically decided by a non-clinician (ie call center personnel) that may work off a template for what length of visit is appropriate. This can lead to mis-match of necessary appointment times and increase frustration for clinicians and patients, especially patients with multiple co-morbid conditions and concerns. This project was designed as a pilot program to evaluate the feasibility and sustainability of having 30 minute appointments for patients instead of 15 minute or 30 minute appointment times.

## METHODS/APPROACH:

Initially 4 outpatient care physicians were selected to move to the 30 minute appointments for all patients. The schedules were changed so no shorter appointment times could be entered. After 3 months of the pilot initiated, an additional 5 clinicians (included one ARNP) were added to the pilot program.

## CONCLUSION:

Increasing time with patients should be a key component of any organization to improve the well-being and satisfaction of their clinicians. This project demonstrates that it is feasible and sustainable to allow more time with patients. Allowing greater flexibility for patient visit times also increased more control over the clinicians workload. There was no major difference in work RVUs or patient visits during the pilot study time. Ongoing monitoring of physician satisfaction, support staff satisfaction and sustainability is continuing.

Data was evaluated after 9 months of the pilot program. The clinic administration monitored individual clinicians work RVU and number of patient visits for the pilot time frame and compared this to previous wRVU and patient visits prior to the pilot. The mini-Z questionnaire was completed but the 9 clinicians in the pilot program and by 11 who were not in the pilot program

## RESULTS:

Clinicians in the 30 minute pilot all reported improved well-being. The pilot group scored higher on having more control over their workload (88% vs 50% nonpilot). The pilot group also scored higher on the satisfaction score compared to the non-pilot group (88% vs 75%). The average wRVU for the pilot group was either stable or improved for most clinicians. Evaluation of the monthly visits (averaged for time out of clinic, and compared to previous months) was unchanged. Several comments by clinicians in the pilot project commented on their improved satisfaction, noted that their medical assistants were happier, they had more time for clinical reasoning and did less documentation at home. Due to the success of this pilot project, the organization opened up all primary care clinicians to be able to have a choice of 30 minute only appointments for all their patients.

# Promoting emerging champions: The Canadian Medical Association “wellness ambassador” initiative

**Corresponding author:**

Christopher Simon, PhD  
Canadian Medical Association  
[Christopher.Simon@cma.ca](mailto:Christopher.Simon@cma.ca)

**Co-author(s):**

Taylor McFadden  
Caroline Gerin-Lajoie, MD

**LEARNING OBJECTIVES:**

1. Learn about the development of a national, Canadian initiative that supports emerging champions in physician health and wellness.
2. Learn about the current and ideal state of medical student health and wellness in Canada.
3. Discuss how this program might be expanded internationally.

**BACKGROUND:**

The Canadian Medical Association (CMA) recently released a new Policy on Physician Health which provides recommendations to help guide stakeholders at all levels of the health system to promote a healthy training and practice environment (CMA, 2017). Within this policy, the CMA recommends that ‘emerging champions from learner and early-career segments be identified and supported’, which led to the development of this initiative. The overarching project objective was to build and maintain a community of emerging and informed leaders in learner wellness who, together, will advocate for a healthy, vibrant and supportive profession.

**METHODS:**

Invitations to apply were sent to medical students via CMA member channels (e.g., e-mails, website, social media), where students were asked to answer two short answer questions related to their interest and/or involvement in supporting learner health and wellness. Applications were evaluated by a committee of physician health experts. To ensure national representation, the top candidate from each Canadian University was selected (n = 17), followed by the next

top-rated candidates (n = 8) for a total of 25 Wellness Ambassadors.

**RESULTS:**

The Wellness Ambassador initiative was launched at the 2018 International Conference on Physician Health (ICPH). Wellness Ambassadors participated in a facilitated pre-conference day where they shared ideas and innovations from their respective universities, received advocacy training, worked networked and worked together, shared experiences, and learned from current leaders in the physician health community. Following ICPH, students completed an evaluation form, with questions pertaining to their experience with the initiative. Feedback indicated that the initiative was well-received, with 80% strongly agreeing that the program met their expectations, and 87% strongly agreeing that the exercises were engaging. Qualitative feedback was also provided. For example, one student indicated, “I enjoyed hearing what initiatives had been implemented at other schools, what worked, what didn’t, and seeing how successful initiatives could be modified to be implemented at my own institution.”

**CONCLUSION:**

This project supports Canadian physicians by aiming to strengthen physician health and wellness through identifying, encouraging, and supporting emerging physician health leaders. In terms of future directions, the aim is to expand this initiative to include residents and early-career physicians, which will allow for mentorship opportunities across career segments.

# Putting pajama time to bed even when the mail never stops: Electronic message management improvements in a large physician medical group

## Corresponding author:

Maia Patel, MD, ScM

Mid-Atlantic Permanente Medical Group

[Maia.M.Patel@kp.org](mailto:Maia.M.Patel@kp.org)

## Co-author(s):

Elias Bruce Awad, MD

Yonas Tamrat, MD, MPH, MMSc

Mona Gahunia, DO

## LEARNING OBJECTIVES:

1. Electronic Health Records can be redesigned to promote physician well-being
2. Workflow changes can measurably improve physician satisfaction with message management, and reduce “pajama time”
3. Work-life balance for doctors does not have to come at the expense of message response time or patient care

## PROJECT OBJECTIVE/BACKGROUND:

In addition to phone calls, patients increasingly send electronic messages regarding their healthcare, but not all messages require physician input. We recognized that moving to an EHR had shifted message triage from a front-desk role all the way up to the physician level, and we decided to empower our health care team members to work at the top of their licensure again. Our prior state routed all incoming messages through the bottleneck of overloaded physician “inboxes,” increasing response times and lowering both physician and patient satisfaction. We worked collaboratively within our organization to redesign our electronic systems and workflows to improve message management, reducing the volume of messages needing physician action, while improving the speed and quality of our responses to patients.

## METHODS/APPROACH:

We conducted pre- and post-surveys of our 1,000+ physician medical group, which we leveraged to obtain organizational agreement for our new workflows. We

created both qualitative and quantitative reporting systems, accessible by all managers in real time, to ensure ongoing accountability.

We built electronic efficiency tools, and designed trainings around the new workflows, to streamline and standardize our message management process. We removed our physicians from shared message pools, and reassigned message triage to nurses.

## RESULTS:

The number of our Family Medicine and Internal Medicine physicians who report spending 3 or more hours on “pajama time” dropped by greater than 50% between 2016 and 2018. Physician impression of the quality of message management and triage by nurses improved from 7% to 50%, while our response time to our patients improved by 18 hours. Most importantly for physician wellness, within just a few months nurses were able to successfully handle 40% of all incoming messages, with some nurses managing 70% of all incoming messages without any physician input.

## CONCLUSION:

We were able to activate a remarkable change throughout our health system by redesigning our electronic message management workflows. Our patients are getting answers to their healthcare questions more quickly, and our doctors are relieved of the cognitive burden of watching messages pile up while they should be focused on in-person patient care at work, or their families and loved ones at home. We achieved this by fundamentally redesigning our medical practice around electronic messages, asking our staff to work at top of their licensure, and leveraging our EHR expertise to build the electronic tools needed to support and promote physician wellness and reduce “pajama time.”

# Shared success mentoring: A social approach to setting new physicians up for success

## Corresponding author:

Jonathan Holland, MS

Mid-Atlantic Permanente Medical Group

[Jonathan.M.Holland@kp.org](mailto:Jonathan.M.Holland@kp.org)

## LEARNING OBJECTIVES:

1. Discuss the importance of a physician mentor/mentee relationship.
2. Understand how structured social support can create lasting impacts on personal & professional well-being.
3. Provide a framework for implementing & evaluating a mentoring program to generate long-term organizational impacts.

## PROJECT OBJECTIVE/BACKGROUND:

The Shared Success Mentoring program was developed to provide newly hired physicians with the support they need to be successfully enculturated into the organization. This support is provided through group mentoring sessions, and through one-on-one mentoring for those who cannot attend the group sessions. Shared Success Mentoring differs from many traditional mentoring programs in that it emphasizes social support and peer connections between physicians, rather than clinical or task-oriented topics. Physician mentors lead discussions on issues important to acclimating to the organization while also discussing broader topics such as maintaining personal well-being and long-term career development. Mentees benefit from asking questions and bouncing ideas off of mentors as well as their peers.

## METHODS/APPROACH:

Physicians join the Shared Success Mentoring program for their first nine months. One-hour meetings are held monthly with leadership support for utilizing this

time. As new physicians are hired they are connected to a mentor group or one-on-one mentor, and after they complete their ninth month they graduate from the program. Post-session mentor debriefs identify opportunities for improvement within the medical centers and departments, as well paths to further develop Shared Success. To date, over 500 physicians have participated in the program.

## RESULTS:

Significant impacts have occurred for both mentees and mentors. Mentors describe this as a rewarding role in their own personal and professional development. Mentees are evaluated immediately after program graduation, and again 9-months later. Results show that physicians who participate in the Shared Success Mentoring program report higher scores than their colleagues on evidence-based items that comprise outcomes including role/job satisfaction, organizational commitment, perceived organizational support, socialization, and coworker relations.

## CONCLUSION:

The Shared Success Mentoring program has created a welcoming, social environment with demonstrated impacts on the organization and the individual, at a time when more physicians are reporting that they are experiencing "loneliness" in their clinical practice.

# Teachable resiliency factors to reduce burnout and improve professional fulfillment

**Corresponding author:**

Kristine Olson, MD, MSc

Yale School of Medicine and Yale New Haven Health

[kristine.olson@yale.edu](mailto:kristine.olson@yale.edu)**Co-author(s):**

Ronald Vender, MD

**LEARNING OBJECTIVES:**

1. Learn some of the teachable factors associated with resiliency.
2. Learn which teachable factors are most likely to have the greatest impact on reducing burnout and improving professional fulfillment.
3. Discuss how these factors influence others known to improve professional fulfillment and reduce burnout, such as teamwork, collegiality, leadership, and professional achievement.

**PROJECT OBJECTIVE/BACKGROUND:**

Comprehensive physician wellness programs often include attention to culture, practice efficiency, and personal resiliency. While resiliency programs are being rapidly developed and deployed, little is known about the potential to improve professional fulfillment and reduce burnout among physicians, and which teachable skills are likely to have the greatest impact. This is the aim of this study.

**METHODS/APPROACH:**

The 4171 practicing attending physicians from five regional hospitals were invited by email to complete an annual wellness survey, including an instrument created to assess for seven teachable resiliency factors on a Likert scale of agreeableness (0-4). [Attached] The Professional Fulfillment Index was used to assess professional fulfillment and burnout.

**RESULTS:**

Of the 4171 practicing attending physicians invited, 1277 responded (31% response rate). This cross-sectional sample was representative of the larger group. There was no significant collinearity among the tested factors. One's self-awareness of what is most important to oneself, ability to self-regulate emotions, mental agility to maintain a positive mindset (optimistic, growth, grit), self-efficacy as a sense of control over one's life, and a sense of transcendent meaning as a sense of awe when reflecting on one's life as a physician were all significantly associated with greater professional fulfillment and lower burnout. When controlling for all factors a sense of control over one's life, an optimistic mindset, and a sense of awe in reflection on one's life as a physician remain strongly associated with more professional fulfillment and less burnout. [Table].

**CONCLUSION:**

Resiliency programs have great potential to improve professional fulfillment and reduce burnout among physicians. This conclusion is limited by the fact this new instrument requires further validation.

**TABLE:**

Resilient mindset associations with professional fulfilment and burnout (unadjusted)

	Professionally Fulfilled				Burned Out			
	mean	OR	CI	p	mean	OR	CI	p
<b>Self-awareness</b>	<b>3.3</b>	<b>2.65</b>	2.18-3.22	0.000	<b>0.7</b>	<b>2.33</b>	1.98-2.74	0.000
<b>Transcendence</b>	<b>2.6</b>	<b>2.36</b>	2.06-2.69	0.000	<b>1.4</b>	<b>1.97</b>	1.77-2.21	0.000
<b>Self-regulation</b>	<b>2.9</b>	<b>2.75</b>	2.32-3.27	0.000	<b>1.1</b>	<b>2.43</b>	2.10-2.82	0.000
<b>Optimistic Mindset</b>	3.0	3.69	3.06-4.45	0.000	<b>1.0</b>	<b>3.39</b>	2.88-3.99	0.000
<b>Growth Mindset</b>	<b>3.1</b>	<b>2.18</b>	1.84-2.57	0.000	<b>0.9</b>	<b>1.90</b>	1.64-2.19	0.000
<b>Grit Mindset</b>	<b>3.3</b>	<b>3.38</b>	2.75-4.17	0.000	<b>0.7</b>	<b>2.86</b>	2.39-3.42	0.000
<b>Self-efficacy</b>	<b>2.6</b>	<b>3.13</b>	2.66-3.68	0.000	<b>1.4</b>	<b>2.70</b>	2.37-3.07	0.000

Multivariate logistic regression with dichotomous dependent variable burnout or professional fulfillment (0 absent, 1 present) and continuous independent variable resilient trait (ordinal Likert of agreeableness 0-4, direction undesirable -> desirable state for PF, desirable/undesirable state for BO)

**Mindset\* (1 Question)**

How true do you feel the following statements are about you during the past three months?

	Strongly agree	Somewhat agree	Neither agree nor disagree	Somewhat disagree	Strongly disagree
I have a clear sense of what is most important to me in life.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I feel in control of my life.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
With perseverance, I believe I can overcome obstacles.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I see failure as an opportunity to learn from experience.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I feel optimistic.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I feel in control of my feelings.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I feel a sense of awe when I reflect on my life as a physician.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

# The American Academy of Neurology “Live Well, Lead Well” leadership program: A specialty organization approach to workplace wellness

## Corresponding author:

Jennifer Rose V. Molano, MD

The University of Cincinnati College of Medicine

[molanoje@ucmail.uc.edu](mailto:molanoje@ucmail.uc.edu)

## Co-author(s):

Heidi Schwarz, MD

Sarah Mulukutla, MD

Neil Busis, MD

Laura Foster, MD

Cormac O'Donovan, MD

Sarah Bird Nelson, JD

Carol Rheaume, MSPH

Lisa Gulya, MA

Terrence Cascino, MD

## LEARNING OBJECTIVES:

1. To summarize one specialty organization's approach to workplace wellness.
2. To appreciate the importance of leadership development in promoting personal and workplace wellness.
3. To demonstrate the importance of creating a network of support to promote physician wellness.

## PROJECT OBJECTIVE/BACKGROUND:

Neurologists have a high rate of burnout. To mitigate burnout, the American Academy of Neurology (AAN) has advocated against regulatory hassles, worked with payors and health informatics, and included educational programming on personal and organizational wellness at the AAN Annual Meeting. To promote personal and workplace wellness, the AAN developed and funded the Live Well, Lead Well (LWLW) Leadership Program.

## METHODS/APPROACH:

The main LWLW program objectives were to (1.) understand burnout in neurology at the individual, workplace, and national levels, (2.) identify strategies to promote personal wellness, (3.) identify strategies to improve well-being in one's local workplace, and (4.) to create a network of support to share ideas about promoting wellness in neurology.

Participants were expected to develop a wellness project for their respective workplaces. The initial seven-month LWLW program started with an immersion weekend that included experiential sessions for personal wellness and workshops to assist with project design. Each participant teamed with two other participants and a neurologist coach for continued project guidance and accountability. The program concluded with a half-day meeting at the AAN Annual Meeting, where participants provided project updates.

## RESULTS:

Fourteen participants were invited to the program (64% female, mean age 44.2 years [SD 9.9]). There were three participants in training, six in academic practice, and five in a multispecialty/neurology group. Two participants had protected time and none had specified funding for their projects. Participants agreed that the weekend helped them better understand burnout in neurology at the individual (93%), work-unit (93%), and national (100%) levels. All agreed that programming helped them to identify strategies to use to promote personal and workplace wellness.

Project interventions included surveys, focus groups, educational seminars, community events, and mentorship interventions. Target audiences included residents and fellows, academic faculty, neurology colleagues, nursing staff, and non-clinical staff. Allies included departmental, hospital or organizational leadership, colleagues at the same level of training, and family and friends outside of the organization. All participants strongly agreed that the program helped them create a network of support to share ideas about promoting wellness in neurology. All were confident or very confident in proposing, planning, and executing a leadership project after the program. Participants most frequently described the program as supportive, motivating, inspiring and worthwhile.

## CONCLUSION:

Sponsored by the AAN, the LWLW program created a community that supported personal and workplace wellness for all participants. Leadership development empowers individuals to cultivate personal and workplace wellness.

# The pebbles project: Creating solutions for organizational “pebbles in the shoe”

**Corresponding author:**

Allyson Hilliard, MD

Mid-Atlantic Permanente Medical Group

[Allyson.M.Hilliard@kp.org](mailto:Allyson.M.Hilliard@kp.org)**Co-author(s):**

Mary Zmuda, MPH

## LEARNING OBJECTIVES:

1. Provide a practical framework for how to involve frontline physicians in improving organizational wellness.
2. Discuss the importance of approaching wellness from an organizational perspective as well as individual wellness.
3. Share local successes to demonstrate larger-scale impacts.

## PROJECT OBJECTIVE/BACKGROUND:

The Pebbles Project provides small groups of physicians with structure and support to solve smaller-scale operational problems in their practice – the so called, “pebbles in the shoes.” Research by Tait Shanafelt shows that physicians who spend at least 20% of their professional effort focused on the dimension of work they find most meaningful are at dramatically lower risk for burnout. While the Pebbles Project does not take up 20% of a physician’s time, and is mainly meaningful to a physician in the way of improving efficiencies, it provides them the opportunity to focus on something that they are invested in solving and to be creative in their solutions-focused approach.<sup>1</sup>

## METHODS/APPROACH:

The Committee on Physician Experience (COPE) meets with small groups of physicians over lunch who have an

idea to solve an operational inefficiency in their practice. Over lunch, COPE and the physicians brainstorm ideas, solutions, and a path of action for how to solve a small problem that creates a big headache in their practice. COPE then works with local leaders and the company’s Innovation Team to deliver the discussed ideas for solution.

## RESULTS:

In a span of 12 months, 21 Pebbles Projects have been initiated – with 15 projects completed and 6 projects currently ongoing. These “pebbles in the shoes” range from modifications in EHR technologies, to new forms created to help with flow of walk-in patients, to updating Econsult pages, to providing a picnic bench outside of physician lounge.

## CONCLUSION:

The Pebbles Project has created a forum for input and new ideas from front line physicians, who may not otherwise have a forum to provide operational suggestions. It has allowed for physicians to work together to create a direct impact in their local medical center.

1 [https://www.mayoclinicproceedings.org/article/S0025-6196\(16\)30625-5/pdf](https://www.mayoclinicproceedings.org/article/S0025-6196(16)30625-5/pdf)

# The University of Cincinnati Department of Neurology and Rehabilitation Medicine All-Associates Retreat: A strengths-based approach to departmental culture and wellness

**Corresponding author:**

Jennifer Rose V. Molano, MD

The University of Cincinnati College of Medicine

[molanoje@ucmail.uc.edu](mailto:molanoje@ucmail.uc.edu)

**Co-author(s):**

Reena Shah, MD

Jason Bruns, MHSA

Maggie Baker

Brett Kissela, MD

## LEARNING OBJECTIVES:

1. To demonstrate the role of leadership in promoting departmental wellness.
2. To summarize the strengths-based approach to wellness in one academic department.
3. To appreciate how a strengths-based approach can identify areas of growth in an academic department.

## PROJECT OBJECTIVE/BACKGROUND:

The vision of the University of Cincinnati Department of Neurology and Rehabilitation Medicine is to be the model and destination for integrated personalized care, research and education. While a problem-based approach is typically used to determine areas of improvement, a strengths-based approach can also be used to identify areas of opportunity and growth towards the department's vision. Departmental leadership used this approach to plan an All-Associates Retreat focused on departmental culture and wellness.

## METHODS/APPROACH:

Prior to the retreat, all faculty, learners, medical staff, and administrative staff were asked (1.) to rate the culture of the department from 1 [bad] to 5 [good] and (2.) to describe the culture of the department in one word.

Retreat activities focused on purpose, meaningful work, and personal resilience. All associates, including faculty, residents and fellows, and staff, were free from clinical and administrative responsibilities, except for personnel essential for in-patient hospital care. Funding for the retreat was provided by the department. During the retreat, culture survey results were presented, then participants listened to a patient experience story and experienced mind-body sessions on mindfulness and relaxation.

## CONCLUSION:

Leadership support of a strengths-based approach can be used to identify areas of opportunity and growth towards the departmental culture and wellness.

Participants also engaged in an appreciative inquiry exercise to explore joy in work and the optimal work environment. Appreciative inquiry is a process that approaches change through a strengths-based perspective in organizations, including health care. It also may provide ideas to improve the work culture, which are essential for a thriving, productive and cohesive work-force.

## RESULTS:

There were 140 respondents to the culture survey. The mean score on the culture question was 3.53, and 56% described the departmental culture with a positive word.

There were ~200 participants at the retreat. The appreciative inquiry exercise uncovered three common themes as areas of focus for the clinical leadership team. First, to promote a positive presence of leadership in the clinic, daily huddles, twice daily manager rounds, and quarterly one-on-one rounding have been implemented. Second, to promote the importance of showing appreciation, handwritten cards are being distributed to staff members who are recognized by peers. Finally, to provide adequate training for staff, clinical leadership is exploring strategies to assist with support staff training in the clinics, including binders that are regularly used in a clinician's office and lectures about specific neurological conditions.

# Using a system-based approach to support well-being at the local level

**Corresponding author:**

Amy B. Locke, MD

University of Utah

[amy.locke@hsc.utah.edu](mailto:amy.locke@hsc.utah.edu)

**Co-author(s):**

Megan Call, PhD

Whitney Werner, MBA, MHA

Ellen Morrow, MD

**LEARNING OBJECTIVES:**

1. Identify the variability in needs across an institution
2. Describe how one institution used survey data to identify core themes impacting well-being
3. Explore how system and local initiatives can interface to provide broad support

**PROJECT OBJECTIVE/BACKGROUND:**

As systems approach clinician well-being, designing a system level structure that meets the needs of individuals can be challenging. Local issues vary between clinics, departments, and specific roles. A high-level approach to policies must be met with an ability to customize services to meet the needs of diverse groups.

**METHODS/APPROACH:**

Our Center promotes system and individual resilience by serving as a hub to connect approximately 20,000 faculty and staff to a wide network of well-being initiatives offered by a variety of resources across campus. Annual well-being surveys and needs assessments highlight opportunities at the unit and department level that are shared with institutional leadership and the appropriate smaller groups. By partnering with organizational development, human resources, academic affairs, quality, clinical leadership and business operations, among others, groups are presented options that connect resources based on their specific needs. Additionally, groups are supported

in developing their own projects through our Wellness Champions Program.

**RESULTS:**

Over the first 18 months of the Center, we directly served approximately 3250 employees, trained 140 Wellness Champions, performed 90 resilience consultations, trained 94 clinicians in advanced communication and provided peer support for 68 individuals. As an administrative unit of the Senior Vice President's office, reporting to the Chief Wellness Officer, we are able to meet the needs of clinical and academic groups across health sciences. A one size fits all approach does not meet the needs of a diverse institution. We have seen the most successful changes occur at the system level when individuals have a baseline level of support needs met. By customizing an approach, groups can select what is most likely to benefit, whether that be leadership training, team communication, EMR optimization, a quiet space to work, or access to space to be physically active at work.

**CONCLUSION:**

A system wide structure that can identify needs and then tailor interventions and services to the needs of diverse groups can broaden the impact of a clinician well-being initiative.

# Virtual reality role play simulation to assess stress and investigate strategies to decrease risk of physician burnout

## Corresponding author:

Bradley Tanner, MD, ME

Clinical Tools, Inc./University of North Carolina Chapel Hill

[bradtanner@gmail.com](mailto:bradtanner@gmail.com)

## LEARNING OBJECTIVES:

1. Understand how immersive virtual reality (VR) technology such as Oculus Go can help physicians and physicians in training identify stressors and consider positive and negative coping strategies;
2. Recognize the potential of an immersive headset-based VR experience to practice change and receive feedback on potential success or failure of various coping strategies;
3. Describe how a headset-based VR experience can helping physicians avoid burnout and build confidence in their ability to cope with stresses that may lead to burnout.

## PROJECT OBJECTIVE/BACKGROUND:

Engaging skill training simulations successfully impart health behavior change and support positive emotions. A meta-analysis found that simulations increased self-efficacy in a variety of clinical skills by 20%, declarative knowledge by 11%, procedural knowledge by 14%, and retention by 9% more than control approaches. The individual focus of simulations supports attention, exploration, and improved confidence in addressing challenges.

We are creating an immersive virtual reality (VR) environment for organizations to make available to physicians to help them recognizing factors such as work-life balance issues causing stress, self-reflect on those factors, such as identifying self-imposed social isolation or acknowledging financial or relational concerns, test coping strategies and receive feedback.

## METHODS/APPROACH:

In headset-based VR users are immersed in non-directive, meaningful and context-consistent situations exposing a wide range of stresses including issues that are

- **Personal:** Relationship issues due to conflict, obtaining proper nutrition/sleep/exercise given time constraints,
- **Care-related:** Angry/demanding patients, terminally ill patients, patients similar to the individual,

recovering from making an interpersonal or medical mistake, communicating bad news to a patient or family, feeling overwhelmed by suffering,

- **Ethical:** Ethical concerns related to confidentiality, limiting care due to cost or insurance coverage,
- **Skill-based:** Electronic record-keeping and challenges collecting and reporting patient information, and resolving conflicts with peers, trainees, and superiors.

In VR, the user can build resiliency by investigating situations, responding to decision-making opportunities with clear consequences, pursuing repetitive practice, and receiving tailored feedback and encouragement.

Users could voluntarily share anonymized stress and coping data with the institution to provide the organization with collective data to guide institutional-wide change that would decrease stress and provide support for successful coping strategies.

## RESULTS:

We tested a limited functionality prototype with one group of 5 users. All agreed that they were 1) interested in the storyline, 2) found the feedback useful, 3) felt the simulation could be a useful learning experience, and 4) had an interest in wellness and resiliency highlighted in the experience. Four of five agreed that the experience "flows well."

## CONCLUSION:

Immersive VR simulation technology can expose users to the challenge of clinical care in a realistic and safe environment where users can identify problems, test strategies and assess outcomes. In a VR simulation a user can comfortably identify and adapt to stress and make forward-looking changes that build longer-term resilience, an essential component of avoiding burnout.

# Ways health systems may improve clinical teamwork to promote physician well-being

**Corresponding author:**

Kristine Olson, MD, MSc

Yale School of Medicine and Yale New Haven Health

[kristine.olson@yale.edu](mailto:kristine.olson@yale.edu)**Co-author(s):**

Ronald Vender, MD

**LEARNING OBJECTIVES:**

1. Learn how ineffective teamwork affects well-being.
2. Learn about team dynamics that may influence effectiveness and well-being.
3. Consider interventions to improve teamwork.

**PROJECT OBJECTIVE/BACKGROUND:**

Previous research to assess burnout associated with seven workplace stressors, assessed by the Maslach Burnout Inventory and Mini-Z respectively, demonstrated that while inefficient clinical teamwork was less prevalent than other workplace stressors it was one of the factors most highly correlated with burnout. Given that physicians are now more likely to work in health systems in which they may not be involved in developing the clinical teams in which they work, we hypothesize that lack of team cohesiveness may contribute to inefficient clinical teamwork and physician burnout.

**METHODS/APPROACH:**

In January of 2019 we completed the annual physician wellness survey, having invited 4171 active attending physicians to participate via an email link. We measured physician's perception of seven factors related to team development and team cohesiveness [attached], and the correlations with team efficiency and burnout using the Mini-Z team efficiency metric and the Professional

Fulfillment Index to assess burnout ( $BO \geq 1.33$ ) respectively.

**RESULTS:**

Of those invited, 1277 responded (31% response rate). The presence of inefficient teamwork (15%), made burnout significantly more likely (OR 3.3). Less than half of physicians are involved in selecting clinical teammates (OR 4.5 inefficient teamwork, OR 1.9 burnout), and 36% are not involved in setting expectations for the team (OR 5.4 inefficient teamwork, OR 2.0 burnout). Eighteen percent of physicians do not know the full names of clinical teammates. Physicians were more likely to perceive efficient teamwork if they felt supported, teammates helped them, they helped teammates, they were involved in setting expectations for the team and in selecting the team members, and the team celebrated events together. The absence of these factors was significantly associated with burnout. [Table]

**CONCLUSION:**

Involving physicians in selecting clinical teammates and setting expectations for the team, may achieve greater team efficiency. Giving to and receiving support from teammates is associated with greater team efficiency and less burnout, as is celebrating events together. Greater familiarity with clinical teammates has potential to improve team efficiency

**TABLE:**

Teamwork Factors: Percent lacking, Association with Team Effectiveness and Burnout.

FACTORS:	% lacking factor	Poor Team Efficiency			Burnout		
		%	OR	CI	%	OR	CI
Feel Supported	8.2	<b>61.8 (vs.10.6)</b>	<b>13.6</b>	<b>(8.6-21.8)</b>	<b>66.3 (vs.36.7)</b>	<b>3.4</b>	<b>(2.2-5.4)</b>
Know Names	18.1	<b>23.7 (vs.12.8)</b>	<b>2.1</b>	<b>(1.4-3.0)</b>	44.4 (vs.37.8)	1.3	(1.0-1.8)
Select Teammates	54.4	<b>22.1 (vs. 5.9)</b>	<b>4.5</b>	<b>(3.0-6.7)</b>	<b>45.6 (vs.31.0)</b>	<b>1.9</b>	<b>(1.5-2.4)</b>
Set Expectations	35.9	<b>28.7 (vs. 7.0)</b>	<b>5.4</b>	<b>(3.8-7.7)</b>	<b>49.6 (vs.33.2)</b>	<b>2.0</b>	<b>(1.5-2.5)</b>
They help me	12.7	<b>54.1 (vs. 9.1)</b>	<b>11.8</b>	<b>(8.0-17.5)</b>	<b>62.0 (vs.35.7)</b>	<b>2.9</b>	<b>(2.1-4.2)</b>
I help them	1.3	<b>53.3 (vs.14.3)</b>	<b>6.8</b>	<b>(2.1-22.4)</b>	<b>75.0 (vs.38.7)</b>	<b>4.8</b>	<b>(1.4-20.3)</b>
We Celebrate	17.4	<b>29.6 (vs.11.8)</b>	<b>3.2</b>	<b>(2.2-4.5)</b>	<b>56.8 (vs.35.5)</b>	<b>2.4</b>	<b>(1.8-3.3)</b>
Team Efficiency	14.8				<b>63.8 (vs.34.5)</b>	<b>3.3</b>	<b>(2.4-4.7)</b>

Factors: (0) true/neutral, (1) false; team efficiency satisfactory-optimal (0), poor-marginal(1); burnout (0) absent, (1) present based on PFI BO $\geq$ 1.33. Scale (0-4).

Bolded: statistically significant (  $p < 0.05$  ), Chi-squared and Bivariate Logit Regression.

Your clinical team includes advanced practice providers, nurses, medical assistants, care coordinators, social workers, and others with whom you care for patients. How true are the following statements about your clinical setting during the past two weeks?

	Definitely true	Mostly true	Neither true nor false	Mostly false	Definitely false
I feel supported by the frontline clinical staff	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I know the first and last names of everyone on the clinical team.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I am involved in selecting the people on the clinical team.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I am involved in setting expectations for the clinical team.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Members of the clinical team do their job in a way that makes it easier for me to do mine.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I do my job in a way that makes it easier for others to do theirs.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
At work, I celebrate special occasions with my clinical team.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

# #whyidoit: A multidisciplinary wellness initiative in an academic emergency department

**Corresponding author:**

Alicia Pilarski, DO  
Medical College of Wisconsin  
[apilarski@mcw.edu](mailto:apilarski@mcw.edu)

**Co-author(s):**

Nancy Jacobson, MD  
Rachel Nordstrom, MD

**LEARNING OBJECTIVES:**

1. To describe a wellness initiative that can be use for providers to reflect and share what motivates them to continue to work and excel in the emergency department;
2. To understand what common factors motivate emergency medicine healthcare providers to find workplace wellness and job satisfaction;
3. To identify areas of focus to improve work place wellness, motivation, and job satisfaction.

**PROJECT OBJECTIVE/BACKGROUND:**

Healthcare providers in critical care settings, such as the emergency department have significant workplace stressors and are at high risk for burnout. Recognizing and mitigating provider burnout is critical to physician health and well-being because it correlates with substance abuse, suicidal thoughts, career dissatisfaction, early retirement, and suboptimal patient care. While gratitude and positive psychology have been identified as factors that increase resilience and decrease burnout, no prior studies have examined specific provider motivators for continued career satisfaction and work place engagement. To increase the wellness of providers in our emergency department, we implemented a wellness initiative titled #whyidoit. Our goal was to have providers across all disciplines reflect and share what motivates them to work in our ED.

**METHODS/APPROACH:**

Participants in the #whyidoit Initiative were asked what motivates them in the work place. Responses were gathered over the month of February for three consecutive years (2017-2019) at an academic Level I trauma center in a large Midwestern city. Emergency department staff across all disciplines were recruited to participate. Recruitment messaging was incorporated into grand rounds, nursing huddles, and sign out.

**CONCLUSION:**

Our responses show the greatest motivator of those who work in an ED were team centered. This highlights the importance of relationship building and sense of shared purpose among our group of healthcare providers. Other studies demonstrate that supportive professional relationships also help to build resilience. By identifying the team centered motive for workplace satisfaction, future improvement of workplace well-being should include strengthening and maintaining professional relationships.

Participants self-selected to contribute by writing their response anonymously on a sticky note and posting it on a board that was displayed in the break room for the duration of the month. After three years of implementing this initiative, a thematic analysis based on a grounded theory was performed using the qualitative data. Submissions were subjectively categorized into initial themes, which were then reconciled into three overarching classifications.

**RESULTS:**

In total, 149 responses were collected over three years. Initial motivating themes included team work (N=35), pride in possessing a unique skill set (N=26), helping patients in a time of need (N=26), teaching/ learning opportunities (N=15), humor and levity at work (N=14), building relationships with patients (N=11), financial motivation (N=9), patient gratitude (N=7), and philosophical and moral motivators (N= 6). These themes were then reconciled into three overarching classifications including team centered motivators, patient centered motivators, and reward centered motivators. Of the responses, 51% (N=76) were team centered, 24.8% (N=37) were patient centered, and 24.2% (N=36) were reward centered.

# Oral presentation

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Next generation

# Asynchronous learning credit for well-being: A tool for implementing and promoting a culture of wellness during residency training

## Corresponding author

Al'ai Alvarez, MD

Stanford Emergency Medicine

[alai.alvarez@stanford.edu](mailto:alai.alvarez@stanford.edu)

## Co-author(s):

Jeffrey Sakamoto, MD

Kimberly Moulton, MD

Sarah Williams, MD

## LEARNING OBJECTIVES:

1. Apply elements of the required core curriculum in the Model of Emergency Medicine Practice and Clinical Competency Milestones to develop an asynchronous learning credit for well-being (aLCW)
2. Demonstrate a successful implementation of using asynchronous learning credit to promote self-care
3. Evaluate the applicability of an aLCW into your home institution

## PROJECT OBJECTIVE/BACKGROUND:

Well-being is not a "one-size-fits-all." Some may benefit from group activities, while others may thrive with more private, personal interventions. We began our pilot during academic year 2016-2017, and since have seen usage of this program increase without reminders or prompting, emphasizing the incorporation of this model into the culture of the program.

Well-being elements of the required core curriculum from the [2013 Model of EM Practice](#) and [ACGME Emergency Medicine Milestones](#) were reviewed. We utilized these requirements to help leverage successful implementation among the various stakeholders.

## METHODS/APPROACH:

A log was developed to survey implementation and usage of the program. Activities that promote well-being include doctor's or therapy appointments, mindfulness activities, health-related activities including fitness, bonding with friends and family or directed reading/courses. Residents utilize additional activities beyond these preliminary suggestions.

## CONCLUSION:

Using current frameworks and requirements, we provide an innovative way of promoting the culture of wellness during residency training at no to low cost and with minimal implementation requirement. Motivation to utilize the program is intrinsic, learner centered, and driven by health and well-being promotion. This successful intervention provides a catalyst to ensure a baseline expectation for residents to focus on self-care and their well-being.

## RESULTS:

A brief survey of the current academic year (2018-2019) yields some interesting data. To date, more than half of the residents have logged utilization of the program without prompting/reminders. We believe this is because of the psychological safety we have established around using the aLCW. The mean time is 9.36 hours per resident, with a range of 1 to 63 hours. The advantage is for learners to change their mindset to focus on self-care and what they view as "well-being." For example, one resident with the 63 hours has been interpreting his teaching time as part of his well-being exercise, highlighting how individual learners view well-being interventions differently. To date, over 500 hours are logged this academic year. While the maximum allowed aLCW is 12 hours each, we find that this innovative intervention allows for residents to become more aware of the benefits of self-care, the impact of allotting personal time for their own well-being, and reframing professional development as a kind of well-being. These hours would otherwise be taken from the learner's free time; by providing a baseline credit, the interventions help shift the priority for their betterment.

# A voice for all: A collaborative approach to physician well-being in a medical school

**Corresponding author:**

Chantal Brazeau, MD

**Rutgers New Jersey Medical School**

[chantal.brazeau@rutgers.edu](mailto:chantal.brazeau@rutgers.edu)

**Co-author(s):**

Carol S. Newlon, PhD

Sangeeta Lamba, MD, MS-HPed

Maria Soto-Greene, MD, MS-HPed

## LEARNING OBJECTIVES:

1. Describe a medical school organizational structure that supports faculty physician well-being
2. Describe a collaborative process using a school survey to initiate department-specific conversations and action plans about well-being
3. Describe well-being action plans derived from this approach

## OBJECTIVE/BACKGROUND:

Burnout is prevalent among physicians and academic medical faculty. We describe a medical school organizational structure and collaborative process that utilized results of a survey on well-being to initiate school-wide and department/specialty specific conversations and action plans about well-being.

## METHODS:

We first assembled faculty stakeholders, called Faculty Wellness Champions, as designated representatives and change agents for well-being in each department. In April 2018, the Champions began monthly meetings as part of the school's Faculty Vitality Taskforce led by the Executive Vice-Dean and Assistant Dean for Faculty Vitality. We deliberately included Champions in planning a school survey on faculty well-being. They developed open-ended questions about challenging aspects of work, a personal definition of "wellness", what is most meaningful at work, knowledge of existing well-being initiatives, department-specific barriers, and solutions to wellness. The IRB-approved survey also included quantitative instruments. It was distributed to 549 faculty across 20 departments between 11/2018 and 02/2019. School-wide data were analyzed in aggregate. Department-specific data were analyzed without demographics to protect anonymity. Qualitative data were analyzed for themes. Champions are being

coached to use data and themes to lead conversations with colleagues about departmental and school well-being action plans. They will use the Stanford model of professional fulfillment to elicit ideas to promote a culture of wellness and efficiency of practice, and will use a priority action matrix to select actions plans.

## RESULTS:

The survey response rate was 41%. Most respondents were clinicians (74%) and full-time faculty (92%). About half (51%) had seriously considered leaving the institution in the past year, and 31% met criteria for burnout using the Maslach Burnout Inventory (clinicians, 33%; non-clinicians, 24%). Average scores for the Professional Fulfillment Scale were 2.6/4, and for Empowerment at Work, 4.4/7. On the Mini Z, 70% of physicians agreed/strongly agreed that they are satisfied with their jobs, and many reported a great deal of stress (53%), busy or chaotic work atmospheres (53%), and poor/marginal control over workload (43%).

Emerging qualitative themes for challenges included administrative burdens and lack of resources; for meaning, patient care and making a difference; and for wellness, work-life balance and lack of anxiety. We will present all themes and data and the action plans that resulted from the Champion-facilitated department discussions.

## CONCLUSION:

A faculty well-being survey, collaboratively designed by faculty stakeholders to provide school-wide and department-specific quantitative and qualitative data, provided rich information for planning school and department well-being initiatives.

# Depression and burnout among medical students: Six-year longitudinal study

## Corresponding author:

Padmini Ranasinghe, MD

**John Hopkins School of Medicine**

[padmini@jhmi.edu](mailto:padmini@jhmi.edu)

## Co-author(s):

Jocelynn Owusu, MPH

Amanda Bertram, MPH

Henry Michtalik, MD, MPH, MHS

Jessica Yeh, PhD, MPH

Joseph Cofrancesco Jr., MD, MPH

## LEARNING OBJECTIVES:

1. 1. Describe prevalence of symptoms depression and burnout among medical students during 4 years in medical school
2. 2. Discuss predictors of symptoms of depression and burnout among medical students

## PROJECT OBJECTIVE/BACKGROUND:

Prevalence of depression and burnout are higher among medical students than the general population. A meta-analysis of 167 cross-sectional and 16 longitudinal studies from 43 countries reported the overall prevalence of depressive symptoms among medical students at 27.2% (ranged from 9.3 to 55.9%). Only 15.7% of those students who screened positive for depression sought treatment. Cross-sectional studies reported 45-71% of medical students experience burnout. Longitudinal studies are limited and the objective of this our study was to examine the prevalence and risk factors of symptoms of burnout and depression among medical students during 4 years.

## METHODS/APPROACH:

In 2009, we enrolled medical students into a longitudinal, yearly survey study at a private medical school in the Mid-Atlantic region. Approval was obtained from the Institutional Review Board at the Johns Hopkins School of Medicine. Participants comprised 7 cohorts of medical students who matriculated from 2010 to 2016. Approximately 761 (90.6%) medical students from 2010 to 2016 completed the survey at baseline. Of the 761, 508 (66.8%) participants completed during their 2nd year. Of participants who were eligible (n=652), 56.6% (n=369) of participants completed a follow-up survey during their 3rd year and among eligible (n=544), 46.0% (n=250) of participants completed the 4th year follow-up survey.

## RESULTS:

At baseline, 51.8% of participants were aged  $\leq 22$  years, 49.2% were females, 44.0% were White, non-Hispanic, and 90.8% were single. Among first year medical students, the prevalence of depressive symptoms was 4.3% and it was 10.5%, 10.9%, and 13.9% among years 2, 3, and 4, respectively. Depressive symptoms increased significantly across medical school year ( $p < 0.001$ ).

Emotional exhaustion also significantly increased from 9.4% among first year students compared to 46.2% among fourth year ( $p < 0.001$ ). Prevalence of depersonalization was 8.6% among first year students and 52.5% among fourth year students ( $p < 0.001$ ). After adjustment for age, race, sex, marital status and cohort and first year, increased odds of depressive symptoms during the second year (OR=2.54, 95% CI 1.54, 4.20,  $p < 0.001$ ), third year (OR=2.93, 95% CI 1.71, 5.02,  $p < 0.001$ ), and fourth year (OR=3.58, 95% CI 2.01, 6.35,  $p < 0.001$ ). After adjustment for covariates increased odds of emotional exhaustion during the second year (OR=3.35, 95% CI 2.33, 4.81,  $p < 0.001$ ), third year (OR=4.73, 95% CI 3.24, 6.90,  $p < 0.001$ ), and fourth year (OR=8.33, 95% CI 5.52, 12.56,  $p < 0.001$ ). Similarly increased odds of depersonalization during the second year (OR=3.44, 95% CI 2.33, 5.08,  $p < 0.001$ ), third year (OR=6.88, 95% CI 4.60, 10.29,  $p < 0.001$ ), and fourth year (OR=13.26, 95% CI 8.57, 20.52,  $p < 0.001$ ).

# Depression and suicidal ideation in urology trainees

**Corresponding author:**

Daniel Marchalik, MD, MA

**MedStar Health**[daniel.marchalik@medstar.net](mailto:daniel.marchalik@medstar.net)**Co-author(s):**

Jacob Brems, MD

John Lynch, MD

Charlottle Godlman, MD

Christopher Pellegrino, MD

Jenna Dickman, MD

Ross Krasnow, MD, MPH

**LEARNING OBJECTIVES:**

1. Describe the extent of depression and suicidal ideation in urology and trainees
2. Recognize the impact of personal and institutional factors on depression and SI
3. Identify the potential screening tools for SI

**BACKGROUND:**

Surgical trainees experience a high rate of depression. A recent study of surgical residents revealed that 36% of trainees experience mild, and 20% experience moderate to severe depression, depression. At the same time, 11% of surgical residents were found to have suicidal thoughts. Despite the high rate of burnout previously reported in urologists, no studies have addressed the rates of depression or suicidality in urology trainees.

**METHODS:**

We conducted a national REDCap-based survey study of urology trainees which included demographic, depression (PHQ9), burnout (MBI and single-item self-reported burnout), and quality of life questions. An exploratory analysis of self-reported burnout and suicidal ideation was performed. Model performance and measure performance was assessed using receiver operator characteristic (ROC). An assessment of effect modification using interaction terms was limited due to the small sample size. Finally, our cohort was compared to the AUA Census data using univariate analysis.

**RESULTS:**

Overall response rate was 20.8%. The survey cohort did not differ significantly from the national resident complement. Within this group, 17.6% (n=37) of respondents met criteria for moderate, moderate-severe, or severe depression. Suicidal ideation was reported in 24 residents (11.4%). Burnout was present in 143 residents (68.1%), and BO was self-reported in 94 residents (44.8%). In our cohort, self-reported burnout had a good ability to discriminate for burnout demonstrated on the MBI (0.7096 [95%CI 0.64934-0.76982]). Individual factors associated with increased risk of depression and SI are outlined in Table 1. Importantly, the presence of depression was highly associated with suicidal ideation with 37.8% of residents with depression reporting suicidal ideation versus 5.8% of residents without depression ( $p<0.0001$ ). On adjusted analysis, gender (OR 3.1 [95%CI 1.4-6.9],  $p=0.006$ ), fatigue (OR 3.8 [95%CI 1.6-9.0],  $p=0.002$ ), and burnout (OR 16.7 [95%CI 2.2-127.5],  $p=0.007$ ) increased the odds of depression (Table 2). In our exploratory analysis, we found model performance to be similar between BO assessed with MBI and self-reported BO (Figure 1). Gender and fatigue were not associated with SI. Only self-reported BO was significant (OR 4.0 [95%CI 1.2-13.4]), but not BO assessed on MBI. Self-reported BO alone demonstrated a good ability to predict SI (OR 7.6 [95%CI 2.5-23], AUC Area 0.718 [95%CI 0.634-0.802]).

**CONCLUSION:**

Urology trainees experience a high rate of moderate-severe depression and suicidal thoughts. A single-item self-reported burnout instrument has a good ability to predict SI in trainees.

Table 1

	No depression or Mild depression		Moderate to Severe Depression			No Suicidal Ideation		Suicidal Ideation		
	n = 173 (82.4%)		n = 37 (17.6%)		p-value	n = 186 (88.6%)		n = 24 (11.4%)		p-value
Age, mean (SD)	30.5	(3.2)	30.6	(2.3)	0.170	30.3	(2.5)	32	(5.3)	0.022
Gender, n(%)					0.005					0.1
Male	127	(87.6)	18	(12.4)		132	(91)	13	(9)	
Female	46	(70.8)	19	(29.2)		54	(83.1)	11	(16.9)	
Relationship status, n(%)					0.5					0.08
Single	41	(78.8)	11	(21.2)		42	(80.8)	10	(19.2)	
Not single	132	(83.5)	26	(16.5)		144	(91.1)	14	(8.9)	
Training year, n(%)					0.07					0.2
Intern	19	(79.2)	5	(20.8)		22	(91.7)	2	(8.3)	
Junior	75	(89.3)	9	(10.7)		78	(92.9)	6	(7.1)	
Senior	77	(77)	23	(23)		85	(85)	15	(15)	
Work hours, n(%)					0.003					0.07
<60 hours	14	(82.4)	3	(17.6)		17	(58.6)	12	(41.4)	
60-80 hours	113	(89)	14	(11)		115	(90.6)	12	(9.4)	
>80 hours	46	(69.7)	20	(30.3)		54	(69.2)	24	(30.8)	
Nights on call per week, n(%)					0.055					0.2
1	60	(83.3)	12	(16.7)		66	(91.7)	6	(8.3)	
2	53	(82.8)	11	(17.2)		56	(87.5)	8	(12.5)	
3	34	(81)	8	(19)		36	(85.7)	6	(14.3)	
4	13	(72.2)	5	(27.8)		13	(81.3)	3	(18.8)	
≥5	5	(12.2)	36	(87.8)		7	(23.3)	23	(76.7)	
Weekends on call per month, n(%)					0.307					0.8
1	76	(79.2)	20	(20.8)		86	(89.6)	10	(10.4)	
2	78	(84.8)	14	(15.2)		79	(85.9)	13	(14.1)	
3	11	(91.7)	1	(8.3)		11	(91.7)	1	(8.3)	
4	1	(50)	1	(50)		2	(7.7)	24	(92.3)	
Reported Quality of Life, n(%)					<0.001					<0.001
As bad as it can be	2	(40)	3	(60)		2	(40)	3	(60)	
Somewhat bad	28	(59.6)	19	(40.4)		37	(78.7)	10	(21.3)	
Neutral	37	(84.1)	7	(15.9)		38	(86.4)	6	(13.6)	
Somewhat good	82	(91.1)	8	(8.9)		85	(94.4)	5	(5.6)	
As good as it can be	23	(38.3)	37	(61.7)		23	(48.9)	24	(51.1)	
Satisfaction between personal and professional life, n(%)					<0.001					0.031
Dissatisfied	64	(69.6)	28	(30.4)		76	(82.6)	16	(17.4)	
Neutral	35	(94.6)	2	(5.4)		33	(89.2)	4	(10.8)	
Satisfied	74	(91.4)	7	(8.6)		77	(95.1)	4	(4.9)	
Fatigued, n(%)					<0.001					0.009
No	106	(92.2)	9	(7.8)		108	(93.9)	7	(6.1)	
Yes	67	(70.5)	28	(29.5)		78	(82.1)	17	(17.9)	
Structured mentorship, n(%)					0.010					0.4
No or Don't know	90	(76.3)	28	(23.7)		102	(86.4)	16	(13.6)	

Yes	83	(90.2)	9	(9.8)		84	(91.3)	8	(8.7)	
Access to mental health services, n(%)					0.016					0.1
Readily Available	72	(91.1)	7	(8.9)		74	(93.7)	5	(6.3)	
Available, but difficult to access	51	(81)	12	(19)		55	(87.3)	8	(12.7)	
Not available or Don't know	50	(73.5)	18	(26.5)		57	(83.8)	11	(16.2)	
Exercise for relaxation, n (%)					0.017					0.3
No	73	(75.3)	24	(24.7)		83	(85.6)	14	(14.4)	
Yes	100	(88.5)	13	(11.5)		103	(91.2)	10	(8.8)	
Spend time with friends/family for relaxation, n (%)					<0.001					0.031
No	26	(61.9)	16	(38.1)		33	(78.6)	9	(21.4)	
Yes	147	(87.5)	21	(12.5)		153	(91.1)	15	(8.9)	
Coffee or Energy drinks consumed per day, n(%)					<0.001					0.1
None	19	(73.1)	7	(26.9)		20	(76.9)	6	(23.1)	
1-2 drinks	122	(89.7)	14	(10.3)		125	(91.9)	11	(8.1)	
3-4 drinks	30	(71.4)	12	(28.6)		36	(85.7)	6	(14.3)	
≥5 drinks	2	(33.3)	4	(66.7)		5	(83.3)	1	(16.7)	
Alcoholic drink consumed per week, n(%)					0.1					0.7
None	27	(81.8)	6	(18.2)		28	(84.8)	5	(15.2)	
1-4 drinks	84	(88.4)	11	(11.6)		86	(90.5)	9	(9.5)	
5-8 drinks	43	(72.9)	16	(27.1)		53	(89.8)	6	(10.2)	
≥9 drinks	17	(81)	4	(19)		18	(85.7)	3	(14.3)	
Emotional Exhaustion, n(%)					<0.001					<0.001
No	103	(94.5)	6	(5.5)		105	(96.3)	4	(3.7)	
Yes	70	(69.3)	31	(30.7)		81	(80.2)	20	(19.8)	
Depersonalization, n(%)					0.003					0.007
No	83	(91.2)	8	(8.8)		87	(95.6)	4	(4.4)	
Yes	90	(75.6)	29	(24.4)		99	(83.2)	20	(16.8)	
Burnout, n(%)					<0.001					<0.001
No	66	(98.5)	1	(1.5)		66	(98.5)	1	(1.5)	
Yes	107	(74.8)	36	(25.2)		120	(83.9)	23	(16.1)	
Self-reported Burnout, n(%)					<0.001					<0.001
No	111	(95.7)	5	(4.3)		112	(96.6)	4	(3.4)	
Yes	62	(66)	32	(34)		74	(78.7)	20	(21.3)	

**Table 2.**

	DEPRESSION		SUICIDAL IDEATION		
	MBI	Self-reported BO	MBI	Self-reported BO	Self-reported BO only
Female gender	3.1 [1.4-6.9]**	2.2 [1-5.1]	1.4 [0.5-3.6]		
Fatigue	3.8 [1.6-9]**	3.0 [1.2-7.3]*	1.7 [0.6-4.7]		
Burnout	16.7 [2.2-127.5]**		5.9 [0.7-47.7]		
Self-reported Burnout		7.0 [2.5-19.7]***		4.0 [1.2-13.4]*	7.6 [2.5-23]***
Depression			5.6 [2-15.1]***	5.8 [2.2-15.6]***	
AUC Area	0.803 [0.738-0.868]	0.807 [0.73-0.883]	0.825 [0.753-0.897]	0.815 [0.733-0.897]	0.718 [0.634-0.802]

\* p&lt;0.05, \*\* p&lt;0.01, \*\*\* p&lt;0.001

	US Cohort n=210		AUA Data N=1516		p-value
Age, mean (SD)	30.51	(3.03)	31.48		
Gender, n(%)					0.086
male	145	(69)	1131	(75)	
female	65	(31)	385	(25)	
Number of residents per year, %					0.54
1	4%		6%		
2	30%		30%		
3	47%		43%		
≥4	19%		21%		

# Evaluating longitudinal empathy changes from a supplemental mindfulness curriculum in four-year medical education program

## Corresponding author:

Hema Arikala, BS

University of South Florida, Morsani College of Medicine

[harikala@health.usf.edu](mailto:harikala@health.usf.edu)

## Co-authors:

Steven Monobianco, MD

Jessica Watson, MD

Rahul Mhaskar, MPH, PhD

Joann Farrell Quinn, PhD, MBA

## LEARNING OBJECTIVES:

1. What are the components of the USF SELECT program?
2. How does a longitudinal EI-based supplemental medical curriculum affect the mindfulness and empathy of medical students?

## PROJECT OBJECTIVE/BACKGROUND:

The SELECT program prepares students to have foundation in emotional intelligence such that they can be more engaged physicians, more effective team leaders, and be leaders in changing health care system. Prospective students are screened on the traditional criteria for admission, and in addition take part in behavioral event interviews, which are intended to inform on the current state of emotional and social competence of the individual. Once admitted, students participate in weekly professional development classes which emphasize four main components of emotional intelligence: self-awareness, self-management, social awareness, and relationship management.

This research project follows students from two SELECT classes during their undergraduate medical education to determine the effects of mindfulness curriculum on emotional intelligence and empathy.

## METHODS/APPROACH:

Three previously validated surveys, the Jefferson Scale of Empathy (JSE), Mindful Attention Awareness Scale (MAAS), and Five Facet Mindfulness Questionnaire (FFMQ), were administered at the beginning of the academic year for the Class of 2019 and 2020, and focus groups of high- and low-scoring survey respondents

were held at the conclusion of years one and three to qualitatively understand factors impacting the program. Data obtained from the study was compared between classes as well as the national body of American medical students as established in existing literature.

## RESULTS:

Data collection is complete through the first half of our fourth year, with the final focus groups and surveys to be administered to the Class of 2020 starting Spring 2019. First, scores on the MAAS and FFMQ were not significantly different at baseline between classes although the Class of 2020 reported more exposure to EI concepts before medical school. The Class of 2019 showed preserved mindfulness throughout all four years, with a significant increase on the FFMQ in the start of the fourth year. The Class of 2020 had a significant decrease in both the FFMQ and MAAS between the start of the second and third years. Focus group data from the end of the first year showed that students had a variety of exposures to EI prior to medical school, opinions of the program changed significant after beginning school, and majority of students recommended the SELECT program over a traditional medical education. JSE data is not yet available for review.

## CONCLUSION:

Longitudinal quantification of medical student mindfulness in an experimental undergraduate medical educational curriculum focused on emotional intelligence showed preservation of empathy across four years in one class and a decrease between the beginning of the second and third years in another class. Further analysis is pending focus group testing of one class finishing their third year of medical school and study/correlation of empathy data on these two medical classes. This study highlights the need for further longitudinal studies assessing the efficacy of experimental educational models on the emotional intelligence of medical students.

# Physician burnout: Perspectives from the spouses of resident physicians

**Corresponding author:**

Cormac O'Donovan, MD

Wake Forest University Baptist Medical Center

[odonovan@wakehealth.edu](mailto:odonovan@wakehealth.edu)

**Co-author(s):**

Susan Melin, MD

## LEARNING OBJECTIVES:

1. To inform the audience of the results of a survey of spouses of residents on physician burnout.
2. To identify themes from survey results which may serve as areas for possible intervention to reduce the effects of physician burnout on families of physicians in training.

## PROJECT OBJECTIVE/BACKGROUND:

Physician burnout can affect their relationships with patients, co-workers, friends and family members. Research in the area of medical marriages has been relatively underrepresented in recent times despite increased rates of burnout in recent years. The goal of this study was to assess the degree of burnout in resident physicians as perceived by their spouses.

## METHODS/APPROACH:

Surveys were distributed to members of the Resident Spouses Association (RSA) through a website and Facebook page and were answered confidentially. The survey was constructed from a modification of standard MBI survey, items from a resident well-being survey and spousal satisfaction survey.

## CONCLUSION:

Physician burnout has a significant effect on marital relationships in several different measures despite the majority of spouses reporting being "satisfied" with their relationship. Symptoms of burnout were reported at higher rates based on spousal perception than when physicians did self-report. This may add another dimension to burnout assessment tools. These results clearly indicate the need for interventions to reduce marital distress in physicians and spouses and it may help improve physician burnout.

## RESULTS:

58 out of 105(55%) members responded. Almost all of the respondents felt they had a good understanding of what their spouse did at work, and the majority were satisfied with their relationship. However, over half felt that work had changed or interfered with how their spouse interacted emotionally, and three quarters felt that their spouse's chronic fatigue due to work overload was adding stress to their home life. 93% said their spouse "comes home too tired to do some of the things I would like to do". Other items reported were that their spouses were coming home irritable from work(84%), being cynical about work(65%) and appeared to be depressed(40%) . All respondents felt that housestaff did not have adequate time to attend to their personal health needs.

# Starting them on a healthy path: A multidisciplinary and interprofessional resource group for learner well-being in medical education

## Corresponding author:

Dael Waxman, MD

**Atrium Health**

[Dael.Waxman@AtriumHealth.org](mailto:Dael.Waxman@AtriumHealth.org)

## Co-author(s):

Yasemin Moore, MHA

Suzette Caudle, MD

Eric Anderson, MEd

## LEARNING OBJECTIVES:

Upon conclusion of this session, participants will be able to:

1. Describe a process to create a multidisciplinary, multi-level learner resource group that attends to professional well-being during medical training.
2. Discuss at least three effective well-being strategies that are geared toward learners in medical education.
3. Identify components of this program that can be transferred to attendees' home institutions.

## PROJECT OBJECTIVE/BACKGROUND:

It is well known that, compared to their peers in non-medical professions, learners at all levels of medical education are at increased risk of burnout, depression, interpersonal stress, substance abuse, and suicide. Recognition of these risks by accrediting bodies (ACGME, LCME) has resulted in the implementation of guidelines to address resident and medical student well-being.

## METHODS:

In our setting, a Medical Education Division in a large healthcare system, there was wide variation among the training programs in attention to these guidelines. While some of the programs had robust intentionality towards a culture of well-being, others were not sure where to begin. Noticing this and wanting to engender a system wide well-being ethos, the authors assembled

a resource group made up of both faculty and learner representation from: each post-graduate training program, undergraduate medical education, and the advanced care practitioner program.

## RESULTS:

Outcomes of the resource group – named Med Ed Well – include: establishment of goals (to educate, develop resources, and propagate a culture of well-being in our system), a comprehensive inventory of well-being programming already in place across programs, sharing and adoption of practices between departments, and, importantly, building multidisciplinary, interprofessional, and multi-level learner and teacher collaboration towards improving the well-being of healthcare professionals.

## CONCLUSION:

The advent of a multidisciplinary, interprofessional, and multi-level learner well-being resource group is instrumental in meeting accreditation guidelines and, more importantly, engendering a wider system culture of professional well-being.

# The impact of institutional factors on physician burnout: A national study of urology trainees

**Corresponding author:**

Daniel Marchalik, MD, MA

**MedStar Health**[daniel.marchalik@medstar.net](mailto:daniel.marchalik@medstar.net)**Co-author(s):**

Jacob Brems, MD

John Lynch, MD

Charlottle Godlman, MD

Christopher Pellegrino, MD

Jenna Dickman, MD

Ross Krasnow, MD, MPH

## LEARNING OBJECTIVES:

1. Define the extent of burnout among urology trainees
2. Recognize the institutional impact on trainee well-being
3. Contrast individual, programmatic, and organization factors contributing to trainee burnout

## PROJECT OBJECTIVE/BACKGROUND:

The rate of burnout in surgeons is high yet burnout in urologists is poorly understood. Furthermore, no prior studies have been conducted on urology trainees. We sought to determine the prevalence of burnout in urology trainees and to trace the influence of personal, programmatic, and institutional factors on this condition.

## METHODS/APPROACH:

We conducted an anonymous survey study of burnout in urology residents across the United States using a 50-question REDCap-based electronic questionnaire in May of 2018. All current urology trainees were eligible to participate. The survey included demographic questions, an inventory of stress-reduction techniques and several validated questionnaires. Burnout was assessed using the Maslach Burnout Inventory. Univariate analysis and multinomial logistic regression models were used to assess associations between individual, program, and organizational factors and resident burnout.

## CONCLUSION:

The prevalence of burnout in urology trainees is high. While a large emphasis has been placed on individual resilience, institutional factors such as formal mentorship and access to mental health services may also play an important role in resident burnout.

## RESULTS:

211 of 1,011 (20.9%) of eligible participants responded; 68.2% of urology trainees met the criteria for burnout. Individual factors such as age, gender, exercise and meditation were not associated with burnout while reading for relaxation ( $p=0.022$ ) and spending time with family ( $p=0.025$ ) were protective against burnout. Working >80 hours vs 60-80 hours and <60 hours per week were more likely to exhibit burnout (77.6% vs 66.1% vs 47.1%, respectively,  $p=0.044$ ). Structured mentorship programs ( $p=0.019$ ) and access to mental health services ( $p<0.001$ ) was associated with decreased rates of burnout (Figure 1). On multivariable analysis, mental health services that were difficult to access or unavailable were associated with a greatly increased odds of burnout (OR 5.38, 95%CI 2.20-13.16,  $p<0.001$ , and OR 2.33, 95%CI 1.07-5.07,  $p=0.034$ , respectively) (Figure 2).

# Oral presentation

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Women in medicine

# Behavioral and occupational predictors of burnout in Canadian women physicians and residents

**Corresponding author:**

Taylor McFadden

Canadian Medical Association

[Taylor.McFadden@cma.ca](mailto:Taylor.McFadden@cma.ca)**Co-author(s):**

Christopher Simon, PhD

Caroline Gerin-Lajoie, MD

**LEARNING OBJECTIVES:**

1. Learn about the health and wellness status of Canadian women in medicine.
2. Learn about the contributing factors of burnout in Canadian women physicians/residents.
3. Learn how the dataset will help inform and enhance CMA initiatives in physician health and wellness.

**BACKGROUND:**

Recent national Canadian data has shown that women physicians and residents report significantly higher rates of burnout, compared to men (Canadian Medical Association; CMA, 2017). However, there is a dearth of knowledge regarding contributing factors. Given that women are projected to represent half of the physician workforce by 2030 (CAPER, 2018), this is a concerning result. Moreover, it is important to understand what unique challenges women in medicine experience to help identify actionable areas that need to be targeted and improved. Therefore, this study sought to identify the behavioral and occupational predictors of burnout in women physicians and residents.

**METHODS:**

This study included a sub-sample from the 2017 CMA National Physician Health Survey (n = 782 women physicians and residents). Following ethical approval, participants responded to an online survey assessing a variety of psychological, behavioral and occupational factors, using validated scales. A binomial logistic regression was conducted to predict burnout using six

behavioral variables (physical activity, healthy eating, having a family physician, alcohol bingeing, substance use, and sleep hours) and six occupational variables (presenteeism, collegiality, satisfaction with work-life integration, career satisfaction, work-efficiency/resources satisfaction, and work hours).

**METHODS:**

The logistic regression model was statistically significant,  $\chi^2(13) = 294.57$ ,  $p < .001$ . Among the behavioral variables, only binge drinking was a significant predictor ( $p < .05$ ). Five occupational variables were significant predictors, including: presenteeism, low level of collegiality, dissatisfaction with efficiency and resources, dissatisfaction with work-life integration, and dissatisfaction with career in medicine. The strongest predictors were dissatisfaction with work-life integration and dissatisfaction with career in medicine, whereby those who reported these factors had three- and nine-times higher odds respectively, to experience burnout.

**CONCLUSION:**

Putting these results into context, poor work-life integration may be attributed to the increased demands women have at home. Harassment and disrespect from peers have been shown to contribute to negative perceptions of collegiality. Finally, issues such as pay inequity and lack of professional development in one's career, may have a negative influence on career satisfaction. These findings support growing calls for changes in practice environments and medical culture, to reduce burnout in women physicians and residents.

# Characterizing burnout among female faculty in an academic medical center

## Corresponding author:

Lisa Rotenstein, MD, MBA  
Brigham and Women's Hospital  
[LRotenstein@Partners.org](mailto:LRotenstein@Partners.org)

## Co-author(s):

Elizabeth Harry, MD  
Bridget Neville, MPH  
Stuart Lipsitz, ScD

Thomas Sequist, MD, MPH  
Jessica Dudley, MD

## LEARNING OBJECTIVES:

1. Describe differences in burnout rates between female vs. male academic physicians.
2. Identify female vs. male differences in ratings of factors potentially contributing to burnout.
3. Describe differential drivers of burnout in female vs. male academic physicians.

## PROJECT OBJECTIVE/BACKGROUND:

Burnout, a syndrome that develops in response to chronic job-related stressors, is a critical issue affecting modern physicians. Burnout has negative effects on healthcare practice and workforce availability. We sought to characterize gender-based differences in burnout among physicians at an academic medical center and to understand contributors to burnout in this population.

## METHODS/APPROACH:

In Spring 2017, an adaptation of the Stanford Physician Wellness Survey was administered to all faculty actively practicing medicine at Brigham and Women's Hospital (BWH), an academic medical center affiliated with Harvard Medical School. It included validated measures of aggregate burnout (defined as a combination of emotional exhaustion and interpersonal disengagement) and professional fulfillment. Data regarding demographics and factors previously suggested to contribute to burnout were collected. Generalized estimating equations clustered by department were used to compare male versus female faculty's ratings of culture of wellness, personal resilience, and practice efficiency factors that might contribute to burnout. Through construction of sequential logistic regression models, we sought to identify which factors could explain differences in burnout and professional fulfillment rates in male versus female physicians.

## METHODS:

Our population included 1,066 clinical faculty (53.6% men and 46.4% women; 65% response rate). A majority were under age 50. The largest departments represented were medicine (27.2%) and general surgery (10.7%). Female physicians were younger than male counterparts ( $p=0.02$ ) and had lower academic ranks ( $p=0.04$ ). They were significantly more likely to report burnout than male physicians (42.4% vs. 34.4%;  $p=0.01$ ), and less likely to report professional fulfillment (35.1% vs. 50.4%;  $p<0.01$ ). They had lower ratings of perceived appreciation ( $p<0.01$ ), self-compassion ( $p<0.01$ ), schedule control ( $p<0.01$ ), work environment diversity ( $p=0.01$ ), diversity/quality of departmental recruiting ( $p=0.01$ ), and salary/benefits ( $p=0.01$ ). Although they weren't more likely to report a planned departure within two years, females were more likely to report a departure would be driven by considerations around mentoring, schedule flexibility, advancement opportunities, and workload expectations. Adjusting for differences in faculty rank, perceived appreciation, and lack of self-compassion in addition to demographic factors completely explained the differences in odds of burnout and partially explained the differences in odds of professional fulfillment between male and female faculty.

## CONCLUSION:

Female physicians practicing in an academic medical center experience higher levels of burnout and lower professional fulfillment than male counterparts. They have significantly different ratings of workplace factors such as perceived appreciation, schedule control, salary, and diversity, as well as personal factors such as lack of self-compassion. Differences in faculty rank, perceived appreciation, and self-compassion contribute to higher rates of burnout and lower rates of professional fulfillment in female physicians. Further research is needed to identify interventions that capitalize upon this knowledge to mitigate burnout in an academic medical population.

# “The doctor is not in”: Identifying system-level factors that contribute to attrition of VA women’s health providers

## Corresponding author:

Rachel Schwartz, PhD  
**VA Palo Alto Health Care System, Center for Innovation to Implementation (Ci2i), Stanford University School of Medicine**  
[raschwartz@stanford.edu](mailto:raschwartz@stanford.edu)

## Co-author(s):

Yasmin Romodan, MPH	Eric Berg, MS
Jonathan G. Shaw, MD, MS	Sally Haskell, MD, MS
Sarah Friedman, PhD, MSPH	Susan Frayne, MD, MPH

## LEARNING OBJECTIVES:

1. To understand the relative contributions of work volume, team structure, coverage models and clinic structure on attrition rates of VA women’s health providers.
2. To identify characteristics of VA women’s health providers who attrite.
3. To explore what system-level interventions are needed to improve retention of VA women’s health providers.

## PROJECT OBJECTIVE/BACKGROUND:

There is a connection between physician burnout and dissatisfaction, and between dissatisfaction and attrition. Dissatisfied physicians are 2 to 3 times more likely to leave medicine than satisfied physicians<sup>1</sup> a confluence of forces has changed the practice of medicine in unprecedented ways. Anecdotal reports suggest that, in response, some physicians are leaving the practice of medicine or retiring earlier than they otherwise would have.

## OBJECTIVE:

We sought to examine how physician demographic characteristics, practice characteristics, and career satisfaction are related to physician decisions to leave the practice of medicine or substantially cut back their practice hours. DESIGN: Data for this study are from the first 2 rounds of the Community Tracking Study (CTS). By examining rates of attrition and the factors that predict it we can identify opportunities to effect change on system-level levers that predict physician satisfaction and well-being. To date, it is unknown what factors contribute to, or protect against, attrition among VA women’s health primary care providers (WH-PCPs). We examined the associations of attrition in WH-PCPs with provider characteristics, clinic environment, workload, specialty support resources and coverage model factors in order to identify opportunities for system-level

interventions that may improve retention and well-being of VA WH-PCPs.

## METHODS/APPROACH:

We conducted a cross-sectional analysis of existing national survey data from 2016-2017 to examine the following candidate predictors of WH-PCP attrition: provider characteristics (gender and professional role), clinical environment (working in a comprehensive women’s health clinic, a limited women’s health clinic, a general primary care clinic or multiple clinics), workload (number of half-days in clinic per week), and specialty support service availability (having mental health professionals, social workers and pharmacists co-located in the clinic). In a series of unadjusted and adjusted logistic regressions, we calculated odds of attrition related to each predictor. We also conducted a generalized estimating equations clustering analysis at the facility level to account for potential non-independence of observations from the same site.

## RESULTS:

Among 2,348 WH-PCPs, overall attrition rate was 13%. Only one factor significantly protected against attrition: working in a comprehensive women’s health clinic (unadjusted odds ratio = 0.41, 95% CI = 0.20-0.84; adjusted odds ratio = 0.41, 95% CI = 0.19-0.88).

## CONCLUSION:

Clinic environment (working in a comprehensive women’s health center) may protect against attrition of women’s health primary care providers. Working within a comprehensive women’s health center clinic environment may facilitate enhanced team functioning through engaging in a shared mission, working in a predominately female environment, and working with a smaller care team specifically trained to provide tailored care to patients. Further exploration into the mechanisms by which a comprehensive women’s health center clinic environment may protect against provider attrition is needed.

1 Landon BE, Reschovsky JD, Pham HH, Blumenthal D. Leaving medicine: The consequences of physician dissatisfaction. *Med Care*. 2006;44(3):234-242. doi:10.1097/01.mlr.0000199848.17133.9b.

# Poster presentations

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Innovation

# AMA Practice Transformation Initiative: Solutions to increase Joy in Medicine™

**Corresponding author:**

Colleen McLoughlin, MPH

**American Medical Association**[colleen.mcloughlin@ama-assn.org](mailto:colleen.mcloughlin@ama-assn.org)**Co-author(s):**

Nancy Nankivil

Bernadette Lim

## LEARNING OBJECTIVES:

1. Evaluate professional satisfaction and test workflow redesign that supports improvement in practice efficiency.
2. Understand the framework of practice transformation by means of research, interventions, and assessment.
3. Identify methods to support health system practice transformation that promotes clinician well-being, improves patient experience, results in better outcomes, and lowers cost.

## PROJECT OBJECTIVE/BACKGROUND:

We acknowledge the prevalence, systematic causes, and consequences of burnout on physicians and the care team, while recognizing the lack of knowledge and research regarding solutions that address professional well-being. This body of work, that we call our practice transformation initiative, focused on gaining evidence around solutions that bend the curve on burnout and restore or increase professional satisfaction. The initiative will support health care organizations in one-year practice transformation research projects. We will provide in-kind resources in assessment, data collection, intervention, and research methodology to each project. Findings will be published and disseminated.

## METHODS/APPROACH:

Our conceptual model evaluates the balance between workload and work environment. Within each healthcare system, the research will involve a case/control design that examines trial across practices within a single specialty or related specialties. We require participation from 40-80 physicians across

all sites. Health systems will implement at least one identified practice efficiency intervention that focuses on workload and workflow enhancements. Along with a pre, interim and post assessment of well-being, health systems will also provide other data sources, such as work after work metrics, to further evaluate the impact of the intervention.

## RESULTS:

Ten health system sites are currently engaged in the research initiative; two initial pilot sites and eight additional sites selected from twenty-four applicants in May 2019. Baseline assessment, initial data collection and early learnings will be available at the time of the conference. We will be collecting the following metrics from sites based on their selected intervention: professional satisfaction via a validated burnout assessment; workplace staffing levels; productivity such as RVUs; time spent in clinic/provider/week; EHR audit data, including work after work hours.

## CONCLUSION:

The goal is to publish and disseminate evidence-based information regarding the impact of studied interventions on physician well-being. Furthermore, we will promote professional well-being assessment as a standard for effective and sustainable practice transformation.

# An innovative and longitudinal resilience curriculum for internal medicine residents

**Corresponding author:**

Tricia James, MD

Providence Portland Medical Center

[Tricia.James@providence.org](mailto:Tricia.James@providence.org)**Co-author(s):**

Ryan Dix, PsyD, MS

**LEARNING OBJECTIVES:**

1. Burnout and depression affect residents at disproportionately high rates
2. Organizational change in residency is even more challenging with multiple competing demands
3. More studies are needed to identify the most effective approach in this population

**PROJECT OBJECTIVE/BACKGROUND:**

Burnout has gained increasing recognition and is a growing problem within the medical community. Residents consistently have some of the highest burnout rates among surveyed groups. The ACGME instituted new program requirements in July of 2017 that stated "programs have the same responsibility to address well-being as they do to evaluate other aspects of resident competence." While burnout and depression are recognized as challenging issues facing trainees, there have been very few interventions in this population that have been proven to decrease burnout or depression. In order to address these needs in our trainees we created a longitudinal and fully integrated curriculum for our community based internal medicine residents. The objective of this curriculum was to provide residents with the tools necessary to sustain engagement in medicine, decrease the risk of burnout and depression, discuss and start to address systemic contributors to burnout and ultimately help create a more fulfilling personal and professional life.

**METHODS/APPROACH:**

A member of the general medicine faculty in addition to a licensed psychologist and psychiatrist faculty designed the curriculum that would exclusively take place during business hours and be treated as a job expectation. The curriculum consisted of a designated resilience week in addition to monthly educational conferences. Prior to initiating the curriculum, internal medicine and family medicine programs within our larger system were given the opportunity to participate in our study as control sites. We surveyed residents three times with three instruments: PHQ-9, Maslach Burnout Inventory (MBI), and the Jefferson Empathy Scale. We also asked residents about which well-being interventions they found most useful and which they would like to see promoted in the future.

**RESULTS:**

Our intervention did not result in statistically significant improvements in the rates of burnout, depression or empathy. Our power was limited given the low absolute numbers of residents that participated. There were multiple other stressors in our residency program that year that likely impacted our results. The qualitative comments from residents that participated in our curriculum were very positive.

**CONCLUSION:**

Burnout and depression continue to be major challenges facing residents. Aspect of residencies makes interventions even more challenging. More studies are needed to identify the most effective changes to address this pressing challenge. Our data about which well-being interventions residents found most valuable and where they would like to see expansion could help identify areas for expansion in the future.

# Chief resident of wellness: Formalizing a position in an already established robust wellness program

**Corresponding author:**

Daniel S. Orlovich, MD, PharmD  
Stanford University Department of Anesthesiology,  
Perioperative and Pain Medicine  
[dorlovic@stanford.edu](mailto:dorlovic@stanford.edu)

**Co-author(s):**

Natalya Hasan, MD

**LEARNING OBJECTIVE:**

1. Understand how to establish a chief resident of wellness position in order to formalize communication between residents and administrators

**BACKGROUND:**

It has been estimated that the prevalence of burnout among resident physicians ranges from 40-80%.<sup>1-4</sup> In particular, compared to medical students and attending physicians, studies have suggested that resident physicians have lower overall wellness.<sup>5-7</sup>

Formalizing a chief resident of wellness position, a novel approach, builds upon already existent wellness programs. In addition, formalizing this position may reflect a system's commitment to appointing key members and measuring wellness in a manner similar to other commonly held positions and metrics which assess the long term institutional viability.<sup>8</sup>

The overall objectives of creating a chief resident of wellness would be multiple. One, to increase, streamline, and organize the communication from residents to the wellness committee or administrators via a formalized manner. Two, to create a small group intervention focusing on topics which residents have formally decided to be most important. Three, to provide training to select residents who have an interest in wellness who may incorporate this into their post-residency training career.

**METHODS/APPROACH:**

A resident physician from each class would be elected for a 12-month term. A baseline survey with questions which have been shown to be previously validated, will be sent to residents and leadership, which will assess multiple areas including communication, burnout, awareness of wellness efforts, and wellness lecture effectiveness. Next, the elected chief resident of wellness will then send out an anonymous survey to elicit input into specific areas in which other residents deem to be challenging. These will be ranked according to a previously established schema: 1) situational (workload, sleep deprivation, learning), 2) Personal (family, isolation, financial) and 3) professional (responsibility, information).<sup>9-11</sup> In the event that the responses are not robust, then one of four areas, which have been shown to be strongly correlated with burnout (quantitative work overload, perception of work as stressful, anticipation of debt, conflict between work and home) will be selected.<sup>12,13</sup> Using the results, a lecture and small group workshop will be created to address the particular area.

This will be created with expert guidance and support from faculty members who are already involved in wellness initiatives. Marketing material will highlight current wellness efforts in addition to the elected upon areas of interest will also be created after the intervention. A post-intervention survey will then be sent.

- 1 Campbell, J., Prochazka, A.V., Yamashita, T., Gopal, R. Predictors of persistent burnout in internal medicine residents: a prospective cohort study. *Acad Med*. 2010;85:1630–1634
- 2 Shanafelt, T.D., Bradley, K.A., Wipf, J.E., Back, A.L. Burnout and self-reported patient care in an internal medicine residency program. *Ann Intern Med*. 2002;136:358–367
- 3 West, C.P., Shanafelt, T.D., Kolars, J.C. Quality of life, burnout, educational debt, and medical knowledge among internal medicine residents. *JAMA*. 2011;306:952–960
- 4 McCray, L.W., Cronholm, P.F., Bogner, H.R., Gallo, J.J., Neill, R.A. Resident physician burnout: is there hope?. *Fam Med*. 2008;40:626–632
- 5 Hull, S.K., DiLalla, L.F., Dorsey, J.K. Prevalence of health-related behaviors among physicians and medical trainees. *Acad Psychiatry*. 2008;32:31–38
- 6 Stanford, F.C., Durkin, M.W., Blair, S.N., Powell, C.K., Poston, M.B., Stallworth, J.R. Determining levels of physical activity in attending physicians, resident and fellow physicians and medical students in the USA. *Br J Sports Med*. 2012;46:360–364
- 7 Josephson, E.B., Caputo, N.D., Pedraza, S. et al. A sedentary job? measuring the physical activity of emergency medicine residents. *J Emerg Med*. 2013;44:204–208
- 8 Shanafelt TD, Noseworthy JH. Executive leadership and physician well-being: Nine organizational strategies to promote engagement and reduce burnout. *Mayo Clin Proc* 2016;92:129–46.
- 9 Resident Services Committee, Association of Program Directors in Internal Medicine Stress and impairment during residency training: strategies for reduction, identification, and management. *Ann Intern Med*. 1988;109(2):154–161
- 10 Levey RE. Sources of stress for residents and recommendations for programs to assist them. *Acad Med*. 2001;76(2):142–150.
- 11 Thomas NK. Resident burnout. *JAMA*. 2004;292(23):2880–2889.
- 12 Geurts S, Rutte C, Peeters M. Antecedents and consequences of work-home interference among medical residents. *Soc Sci Med* 1999;48:1135–48.
- 13 Sargent MC, Sotile W, Sotile MO, Rubash H, Barrack RL. Stress and coping among orthopaedic surgery residents and faculty. *J Bone Joint Surg Am* 2004;86:1579–86.

# Developing institutional infrastructure for physician wellness: Qualitative insights from VA physicians

## Corresponding author:

Rachel Schwartz, PhD

VA Palo Alto Health Care System, Center for Innovation to Implementation (Ci2i), Stanford University School of Medicine

[raschwartz@stanford.edu](mailto:raschwartz@stanford.edu)

## Co-author(s):

Tait D. Shanafelt, MD

Christophe Gimmler, MD, LMFT

Lars G. Osterberg, MD, MPH

## LEARNING OBJECTIVES:

1. Identify institutional infrastructure that can be implemented to support physician wellness
2. Provide curricular content designed to equip physicians with resiliency tools
3. Highlight physicians' remaining unmet needs that threaten professional wellness

## PROJECT OBJECTIVE/BACKGROUND:

The prevalence and detrimental effect of physician burnout requires new strategies for supporting physicians. Community-building practices are known to improve well-being and reduce burnout in physicians. One model for this is the "Balint group", regular meetings of 6-12 physicians facilitated by trained leaders that begin with case presentations, followed by discussions ranging from challenging patient interactions to system level barriers, communication strategies and personal issues. This three-year project consists of the development and assessment of a "Balint-like" group that delivered novel didactic tools for building resilience.

## METHODS/APPROACH:

The project began with a nine-month facilitated peer-support group for physicians that met every other week. Using 24 focus groups with resident physicians, in addition to input from the first Balint-like group, curricular content was developed to provide psychological and communication tools for navigating challenging situations. These curricula were delivered to participants in a second nine-month Balint-like group. We then conducted semi-structured interviews with 7 hospitalists and 2 outpatient primary care physicians who participated in the groups to explore the intervention's value and physicians' remaining unmet

needs. Using an inductive thematic analysis approach, we identified organizational- and individual-level factors affecting physician wellness and corresponding intervention opportunities.

## RESULTS:

Unmet needs relating to physician wellness patterned into organization-level, community-level and individual-level themes. Organizational themes included challenges navigating work pace and work volume, inadequate staffing, large administrative/ clerical burden and inadequate resources. Community-level themes included isolation, insufficient time to process emotional aspects of the work, and conflicts with colleagues and residents. Individual-level themes included feeling ineffectual and fear of being seen as weak. Institutional infrastructure to address all of these dimensions is needed. Feedback also suggested developing an institutional process for physician support (in the form of a referral pathway for physicians in distress and the provision of regular time to process emotional events with colleagues) may be a strategy for addressing unmet needs. Participants reported that the Balint-like group provided important social and educational support that improved their day-to-day experience and provided them with new tools for navigating professional life.

## CONCLUSION:

Participation in Balint-like groups appeared to normalize struggles, reduce isolation and provide physicians with new strategies for navigating challenging interactions. Institutional infrastructure to address workload, work pace, staffing and clerical burden is needed. Regular, psychologically-safe forums for processing with peers and learning new interprofessional strategies for preserving wellness, may help mitigate physician distress.

# Does family inclusion in employee wellness events improve wellness? A pilot study

## Corresponding author:

Madison Goss, BS

Penn State College of Medicine

[mgoss@pennstatehealth.psu.edu](mailto:mgoss@pennstatehealth.psu.edu)

## Co-author(s):

Molly Carney, BS

Tyler Bruinsma, BS

Rachel Rothstein, BS, MPH

Amy Burns, MD

## LEARNING OBJECTIVES:

1. Understand that burnout is a multifaceted condition so interventions to promote wellness should also be multifaceted.
2. Explore the benefits of family incorporation into hospital employee wellness initiatives.
3. Examine if externally focused and joyful wellness interventions promote employee well being.

## PROJECT OBJECTIVE/BACKGROUND:

The goal of this pilot study was to examine the efficacy of incorporation of family into wellness events for hospital employees. This is a novel concept that, to our knowledge, has not been reported previously in the literature. "Wellness events" are events planned for specific populations to promote mental well-being and prevent burnout. We used a wellness event to assess the efficacy of incorporating families of hospital employees to increase well-being. We also sought to evaluate if interventions with an external focus, and incorporation of joyfulness and interaction with others, are an effective tool for enhancing wellness. This contrasts traditional efforts, like mindfulness or exercise, which are internally focused solitary experiences.

## METHODS/APPROACH:

The wellness event was a "Character Meet & Greet" where medical student volunteers dressed up as different characters (i.e. princesses, superheroes) and interacted with hospital employees and their

families. The event was held in our pediatric hospital. Approximately 100 people attended the event. Participants were given surveys using the Likert Scale to score this event in terms of overall impression, impact on wellness, comparison of this intervention to others at our institution (eg workshops, stress balls), and the meaningfulness of family incorporation.

## RESULTS:

Twenty-six hospital employees responded to the survey. The average score for "Did incorporating your family into this wellness event make it more meaningful for you?" was 9.6/10 with 10 being very much and 0 being much less (Table 1). Participants rated this character event 9.1/10 when asked to quantify how this wellness event compared to other institutional wellness events/initiatives. Employees also had the opportunity for free response feedback on the survey yielding 93% positive comments. One participant stated "Wellness events which take me away from my family are not the ones I attend."

## CONCLUSION:

This pilot study demonstrates the positive impact family incorporation may have on employee wellness. There was an overall high score of this event and a high score when employees compared our event to other institutional wellness interventions. To our knowledge, this is the first pilot study to evaluate the impact of family incorporation into wellness initiatives along with family inclusion on employee well-being. This study also examines the concept of externally focused wellness interventions. Externally focused wellness initiatives, which incorporate interpersonal interactions and joy, may enhance hospital employee wellness. Our pilot study suggests that family incorporation into wellness interventions and outwardly focused strategies to reduce burnout warrant further study.

**Table 1.** Mean Scores for Likert Scale Questions on Exit Survey.

Question	Respondents (n)	Mean Score (out of 10)
How would you rate the event overall?	26	9.7
How does this event compare to other wellness events you have attended?	25	9.1
How did this event impact your wellness?	26	8.3
What was your perception of medical students prior to this event?	26	8.8
What is your perception of medical students following this event?	26	9.6
Did incorporating your family into this wellness event make it more meaningful for you?	23	9.6

# Efficacy of well-being self-awareness and departmental interventions within a single radiology residency program

## Corresponding author:

Shelly Reimer, MD  
St. Luke's Medical Center  
[shellykwenzel@gmail.com](mailto:shellykwenzel@gmail.com)

## LEARNING OBJECTIVES:

1. Find ways to promote well-being self-awareness in a single residency program.
2. Identify program-specific contributing factors to burnout.
3. Implement departmental changes to improve well-being.

## PROJECT OBJECTIVE/BACKGROUND:

Burnout is a severe stress reaction to daily occupational responsibilities that may be associated with adverse mental health and work performance. Predisposing risk factors to resident physician burnout include intense work demands, limited control, and high degree of work-home interference. In a 2018 national Medscape survey, radiology ranked 7th among medical specialties with a burnout rate of 45%. **PURPOSE** The purpose of this resident quality improvement project was to promote well-being self-awareness, identify program-specific contributing factors to burnout, and implement departmental changes to improve well-being.

## METHODS/APPROACH:

Three quality improvement interventions were incorporated into the residency program which included after-hours journal club at a local restaurant, a new resident welcome party hosted by faculty, and weekly CORE Radiology lecture series that focused on team-based exercises and resident camaraderie. Interventional measures were assessed using a quarterly Mayo Clinic Well-Being Index, pre- and post-intervention

work relationship and job satisfaction surveys, and a post-intervention residency program survey. Survey data was collected over the course of 2 academic years, and participation was anonymous and voluntary.

## RESULTS:

Approximately 35% of residents expressed burnout and being overwhelmed within the past month at the time of pre-interventional data collection. Anxiety/irritation and emotional hardening were polled at about 29% while compromised health and daytime sleepiness were demonstrated in 24% and 17% of residents, respectively. Post-interventional analysis depicted a decrease in all categories. No residents expressed depression pre- or post-interventions. The quarterly Mayo Clinic Well-Being Index was the only negatively-perceived factor. In considering more time with friends/family, sleep, healthier dieting, and exercise, an annual resident vs. faculty sporting event was the highest rated area of improvement for a new departmental intervention moving forward.

## CONCLUSION:

Overall resident well-being improved over the course of 2 academic years while under surveillance and with 3 program interventions. More time with friends and family, sleep, healthier dieting, and exercising were the highest-perceived areas of focus for well-being improvement. Post-interventional analysis revealed program interest in an annual resident vs. faculty sporting event. Establishment of this annual event may help further promote well-being within the residency program.

# Evaluation of a formal transformation curriculum to improve quality of care in the practice setting: A pilot study

## Corresponding author:

Meghan Kwiatkowski, MAIO

American Medical Association

[meghan.kwiatkowski@ama-assn.org](mailto:meghan.kwiatkowski@ama-assn.org)

## Co-author(s):

Ashley Cummings, MBA

## LEARNING OBJECTIVES:

1. Recognize the potential contribution of collaborative learning to practice transformation
2. Identify the purpose and appropriateness of a co-designed curriculum
3. Describe the outcomes of a pilot study

## PROJECT OBJECTIVE/BACKGROUND:

Within the scope of a practice transformation initiative, the opportunity exists to apply a collaborative learning approach based on adult learning and human-centered design principles which indicate that for information to be retained it must be relevant to the learner's professional needs. A corollary of these principles is that the members of a learning collaborative should dictate the focus of their learning efforts and follow a formal curriculum that addresses their area of need.

## METHODS/APPROACH:

Of 29 Practice Transformation Networks (PTNs) enrolled in the CMS-funded Transforming Clinical Practice Initiative (TCPI), AMA initialized and completed two learning cohorts. PTN-enrolled practices completed a practice assessment at the onset and upon completion of the collaborative engagement.

## RESULTS:

The pilot study measured improvement across 9 milestones in primary care settings. On average, PTNs within the AMA pilot study cohorts demonstrated improvement of 40% in their selected areas of focus.

American Medical Association SAN Collaborative Results	Quality Impact			CCNC		
	Baseline	Re-measure	% change	Baseline	Re-measure	% change
Primary Care Milestone 4: Patient/family engagement				1.55	2.24	45%
Primary Care Milestone 5: Patient and family survey distribution				1.93	2.61	35%
Primary Care Milestone 8: Panel management	1.79	2.3	28%	1.94	2.45	26%
Primary Care Milestone 9: Risk stratification	0.89	1.75	97%	1.45	2.16	49%
Primary Care Milestone 10: Care management for complex patients	1.6	1.86	16%	1.62	2.34	45%
Primary Care Milestone 15: Whole-person care	1.64	1.95	19%			
Primary Care Milestone 16: Use of population reports/registries for care gaps	1.1	1.95	77%			
Primary Care Milestone 23: Sound business operations	2.36	2.74	16%	2.28	2.7	17%
Primary Care Milestone 26: Readiness for APM migration	1.08	1.56	44%	1.09	1.64	51%

## CONCLUSION:

Learning and practice transformation supported by Quality Improvement Advisors (QIAs), PTNs, and the AMA Support and Alignment Network (SAN) was observed in the two collaboratives reported. Co-design of AMA curricula with the PTNs and their enrolled practices, informed by a clear understanding of baseline performance and identified goals and delivered to quality improvement advisors through peer-to-peer learning and mixed modalities (didactic with discussion; interactive tools), was associated with improvement across 9 milestones.

# Food and fellowship: Increasing connection over shared meals

**Corresponding author:**

Ellie Rajceвич, MPA

**MultiCare Health System**[Eirajceвич@multicare.org](mailto:Eirajceвич@multicare.org)**Co-author(s):**

Mark Mariani, MD, MBA

**LEARNING OBJECTIVES:**

1. Understand the connection between sharing food and building fellowship
2. Build a brief survey to determine whether the fellowship activity made an impact
3. Create a strategy for improving fellowship and collegiality at your own organization

**PROJECT OBJECTIVE/BACKGROUND:**

In 2018, the Provider Wellness Advisory Group suggested that instead of hosting another CME event, the Provider Wellness Program should sponsor activity that would be more meaningful to physicians and advanced practice providers (APPs). They said that they loved having sponsored meals, and they love having the opportunity to connect with providers whom they speak to or refer to often but don't see outside of professional interaction, often over a telephone or through an electronic order.

**METHODS/APPROACH:**

In December 2018, lunches were hosted in five regional hospitals. Lunches were boxed, so physicians and APPs could grab and go, or they could sit down and speak with their colleagues. When lunches were hosted in a conference room, providers were more likely to sit down and spend time with their colleagues. Doctors' lounge lunches were more likely to be eaten by oneself or grabbed and taken elsewhere. Anyone who took a lunch

was encouraged to complete a brief survey. We received 45 survey responses.

**RESULTS:**

Over 100 people attended the lunches. On a brief survey, we asked questions about connection. Anecdotally, this was a big win and a great use of funds. It showed our engagement with our advisory group and made them more engaged with us. We showed them that they are valued and that they hear us. Engagement with them is the highest it's ever been.

- 100% of respondents indicated Yes, they enjoyed today's lunch. (n=45)
- 100% of respondents indicated Yes, we should host more appreciation/fellowship lunches in the future. (n=44)
- 87% of respondents indicated improved connection to colleagues. (n=45)
- 93% of respondents indicated improved connection to the organization. (n=45)

**CONCLUSION:**

Our observed results reflect what we have seen in other studies that explore that spending time together socially. Even though our hosted lunches occurred within hospitals, providers still felt increased connection to one another and the organization. This was our first hosted fellowship event without an associated CME program, and it was well worth the funds spent on the food.

Because of our positive results and response from physicians and APPs, we will continue to pursue similar events. We will likely target ambulatory practices next. Our Provider Wellness Advisory Group has also suggested that a hosted meal between two groups or specialties that commonly refer to one another but do not see each other frequently would be another area of opportunity. We would recommend other Wellness Programs and organizations or practices engage in these fellowship activities. It was very well received by our providers.

# Fostering a culture of health and wellness through professional development meetings

## Corresponding author:

Patricia Cole

Hawaii Permanente Medical Group

[Patricia.A.Cole@kp.org](mailto:Patricia.A.Cole@kp.org)

## Co-author(s):

David Bell, MD

Lois Chiu, MD

Benjamin Chun, MD

Joshua Fouts, BCBA-D

Lois Gregg, MD

Peggy Latare, MD

Burt Moritz, MD

Scott Nishikawa, MD

Kimmie Ouchi, MD

Richele Thornburg, MS

## LEARNING OBJECTIVES:

To promote a culture emphasizing care of the provider and supporting the incorporation of SELF CARE into the lives of physicians/providers through an annual Professional Development Day.

## PROJECT OBJECTIVE/BACKGROUND:

In 2015, national thought leaders updated the Institute for Healthcare Improvement's "Triple Aim" to a "Quadruple Aim" emphasizing care of the provider. As part of our mission to be "The Best Place to Work, Deliver, and Receive Care," we hosted our first Professional Development Day (PDD) dedicated to physician health and wellness. The response was so enthusiastic that another PDD was held in June 2017 and June 2018, with over 400 physicians and providers attending.

## METHODS/APPROACH:

Robust PDD educational program was developed:

- **Welcome:** Executive Medical Director highlighted the necessity of care of the provider in meeting the challenges of health care delivery today, affirming a commitment to invest and support a culture of health and wellness

- **Inspirational testimonial of resiliency:** Physician colleague facing career, personal and/or health challenges
- **Keynote speaker:** Provided context and scientific support for concepts of physician wellness and well-being
- **Breakout sessions:** Activities and classes based on recommendations from the medical group at large, designed to support the concept and philosophies of SELF CARE, with leaders and instructors recruited from the medical group itself. Attendees selected their sessions and enjoyed time with colleagues

## RESULTS:

When surveyed, 98% of attendees stated they were Very Satisfied/Satisfied with the PDD program. In our 2018 Quality of Work Life Survey, 97% agreed that we provide an environment that supports health and wellness, trending up from 89% in 2016. Similarly, 87% felt satisfied with the way they were currently taking care of their own health, up from 77% in 2016.

## CONCLUSION:

Group-wide Professional Development Days dedicated to health, wellness and well-being are effective engagement tools to promote a culture of wellness and encourage adoption of individual SELF CARE practices within a large, multidisciplinary medical group, demonstrating strong investment in care of the provider by medical group leadership.

# From 0 to 60: A CWO's story of a clinician well-being program startup

## Corresponding author:

Stephen Keithahn, MD

University of Missouri School of Medicine/MU Health Care

[keithahns@health.missouri.edu](mailto:keithahns@health.missouri.edu)

## LEARNING OBJECTIVES:

1. Understand the process for developing and advocating for a clinician well-being program at an academic health center
2. Identify potential challenges and opportunities in this process
3. Learn initial strategies for improving clinician well-being at academic health centers

## PROJECT OBJECTIVE/BACKGROUND:

University of Missouri Health Care, an academic health system in Columbia, Missouri, provides health care services to central Missouri and beyond while training the next generation of physicians. UMHC employs approximately 625 faculty physicians, 493 residents and fellows, and 225 advanced practice clinicians, and graduates a medical school class of 116 MDs annually. Although a formal physician well-being survey has yet to be conducted, annual Gallup engagement surveys of UMHC employees have demonstrated that faculty physicians have the highest levels of disengagement of any employee subgroup. Additionally, the 2018 AAMC StandPoint survey indicated that 28% of UMHC physicians are either burned out or burning out. Despite this data, UMHC did not have a formal clinician well-being program until September 2018.

## CONCLUSION:

Physician and non-physician leaders at academic health centers are often skeptical of the benefits of clinician well-being programs despite mounting evidence supporting positive effects on clinician well-being, quality of patient care and education of physician learners, and overall institutional finances. Strategies exist for engaging and compelling leadership to successfully develop and fund a clinician well-being program. Initial program initiatives that can be utilized at other academic institutions have emerged.

## METHODS/APPROACH:

Supported by a committee within the faculty physician practice group, a clinical associate professor in medicine and pediatrics advocated for the development of a formal clinician well-being program. From October 2017 to August 2018, this physician well-being champion delivered multiple presentations to governing bodies and met individually with the main stakeholders in high level leadership positions.

## RESULTS:

On September 1, 2018, the physician well-being champion was named UMHC's first chief wellness officer, a position jointly funded by the school of medicine and hospital system. On July 1, 2019, the clinician well-being program was granted a budget to hire an additional 1.5 FTE and support the initial well-being initiatives.

# Give thanks! Having more gratitude is associated with lower burnout, depression and feeling overwhelmed in medical students

**Corresponding author:**

Katherine Morrison, MD

University of Colorado School of Medicine

[Katherine.2.morrison@ucdenver.edu](mailto:Katherine.2.morrison@ucdenver.edu)**Co-author(s):**

Oliver Bawmann

## LEARNING OBJECTIVES:

1. Describe burnout in medical students.
2. Explain correlation between gratitude, burnout and depression in medical students.
3. Discuss potential gratitude interventions in their institution.

## PROJECT OBJECTIVE/BACKGROUND:

Studies investigating burnout in medical students show a higher prevalence of burnout than the general population and range from 45 – 71% of students. Burnout is associated with significant negative consequences for medical students (depression, suicidal ideation, alcohol abuse) as well as for patients.

Research about gratitude in health care providers is currently limited, however, existing studies show that gratitude interventions can lessen stress and depressive symptoms. Studies on gratitude have not been done in medical students. The authors hypothesized that there would be an inverse correlation between medical student burnout /depression and gratitude.

## METHODS/APPROACH:

Phase 2 (n = 164) and 3 (n = 160) medical students were administered the Dyrbye Medical Student Well-Being Index (MSWBI) to assess burnout as well as empathy,

exhaustion, depression and physical well-being. In addition a six item Gratitude Questionnaire (GQ-6) was administered. The results of these two instruments were used to analyze correlations between gratitude and other traits like burnout and depression in surveyed students.

## RESULTS:

Data demonstrated a negative and statistically significant correlation between burnout and gratitude correlation 0.1915 and 0.2016 respectively ( $p=.01$  for both) as well as depression and gratitude ( $p=.026$  and  $.001$ ) for both MS2 and MS3 students. Having more gratitude was associated with having less burnout and depression.

In MS2 students increased gratitude was associated with being less overwhelmed ( $p = 0.041$ ) and less depressed ( $p = 0.026$ ).

## CONCLUSION:

Results of our study show that having gratitude is inversely related to having depression, burnout and feeling overwhelmed. While not surprising, this raises the question of whether gratitude is an inherent characteristic in some medical students or is it something that can be developed? Given that gratitude interventions are inexpensive and require minimal time this may contribute a viable solution to improving well-being in medical students and may be extrapolated to physicians and health care providers to contribute to a culture of wellness.

# Impact of mental health first-aid training on medical students' ability to intervene in mental health crises amongst peers

**Corresponding author:**

Tiffani Strickland

Sutter Medical Center of Santa Rosa

**Co-author(s):**

Anita Ukani

Eva Waineo, MD

**LEARNING OBJECTIVES:**

1. Recognize importance of peer intervention in mental health crises among students.
2. Understand components of Mental Health First Aid Training (MHFAT) and its utility as a resource to guide response to a mental health crisis.
3. Assess potential for MHFAT to promote wellness and improve student health outcomes.

**PROJECT OBJECTIVE/BACKGROUND:**

Studies show medical students have a higher prevalence of anxiety and depression than age-matched peers and up to 11% admit to suicidal thoughts in the past year<sup>1</sup>. Students unfortunately experience obstacles to seeking treatment, leaving many concerns unaddressed. Recent studies have shown the importance of peer engagement in addressing mental health and supporting those experiencing distress<sup>2</sup>.

MHFAT is an 8-hour long course which teaches participants how to recognize and respond to a mental health crisis. A recent trial of the course amongst students in the UK demonstrated improved confidence and knowledge<sup>3</sup>. This pilot study aims to evaluate the impact of MHFAT upon medical students at the largest single campus allopathic medical school in the US, and its potential for incorporation into wider efforts to expand mental health resources.

**METHODS/APPROACH:**

MHFAT was available to interested medical students. Surveys were anonymously administered to participants

(n=22) before, immediately after, and 2 months following the training. All participants answered the surveys before and immediately after, an additional 16 answered the 2-month follow-up survey. Surveys assessed students' attitudes, confidence, and knowledge about mental health problems and ways to intervene.

**RESULTS:**

Participants reported an increase in mean percentage of self-reported confidence levels in coping with mental health issues (from 70% before training to 85% after), and knowledge regarding mental health problems (from 65% before training to 76% after), when surveyed immediately following the training. Further, 81.25-93.75% of participants felt comfortable helping someone in a mental health crisis 2 months later, compared to only 10-40% prior to the training. The range denotes comfort level across multiple crises, including substance use and suicidal thoughts. Almost two-thirds of students believed they will use the skills they learned in the future with a peer/friend.

**CONCLUSION:**

This pilot study demonstrated effectiveness of MHFAT in improving student knowledge, attitudes, and confidence in recognizing and acting when someone experiences a mental health crisis. Future training will incorporate a larger student number and longer follow-up to determine the sustainability. MHFAT is a generalizable program to other institutions.

1 Dyrbye LN, Thomas MR, Shanafelt TD. Systematic review of depression, anxiety, and other indicators of psychological distress among U.S. and Canadian medical students. *Acad Med*. 2006;81(4):354-373.  
2 Moutier C. Physician mental health: an evidence-based approach to change. *J Med Regulation*. 2018;104(2):7-13.  
3 Davies EB, CBeever E, Glazebrook C. A pilot randomised controlled study of the mental health first aid eLearning course with UK medical students. *BMC Medical Education*. 2018; 18:45.

# Implementing a gender-equity task force in the department of surgery

**Corresponding author:**

Sam Van Horne, PhD

**Christiana Care Health System**[Samuel.A.VanHorne@ChristianaCare.org](mailto:Samuel.A.VanHorne@ChristianaCare.org)**Co-author(s):**

Julia MacRae, MD

## LEARNING OBJECTIVES:

1. Describe strategies for successfully implementing a gender-equity task force.
2. Describe factors associated with increased burnout and decreased control of schedule for women physicians.
3. Use strategies for improving outcomes for women physicians.

## PROJECT OBJECTIVE/BACKGROUND:

Gender disparities among physicians have been extensively documented, and the American College of Physicians set forth a list of positions and statements centered on addressing disparities between male and female physicians (Butkus et al., 2018). Compared with male physicians, women are at greater risk of burnout even after adjusting for workload (Shanafelt et al., 2019).

The objective of this project is to describe how one hospital system is using detailed analyses of outcomes to inform a multi-faceted project to improve gender equity.

## SURVEY METHOD:

We conducted a cross-sectional survey study in three years to examine physicians' perceptions of their level of burnout, control of schedule, and other outcomes at a hospital system in the Mid-Atlantic region. The survey instrument, developed in collaboration with the Provider Well-being Academic Consortium, included questions about physicians' experiences as clinicians and demographic questions that included items about family status. The survey analysis included physicians from all specialties in order to better understand how physicians' experiences differed by gender.

## CONCLUSION:

Important disparities exist in terms of how men and women physicians perceive their work environments, and it is critical for health systems to make structural changes that promote gender equality. Gathering input from women physicians is an essential strategy for ensuring that task forces address the most important factors that can influence differences between how men and women physicians experience their work lives.

## SURVEY METHODS:

We found important themes related to how family structure and gender influence women physicians' perceptions of their work lives. For example, women physicians who were pregnant or who had added a child to their family had, on average, worse perceptions of control of their schedule, compared with women who did not report being pregnant or having recently added a child to their family.

## IMPLEMENTATION OF TASK FORCE:

A gender-equity task force was started to examine issues related to disparities within the department of surgery. Focus group data were collected from physicians to help inform the direction of the task force.

The pilot project includes a compensation analysis and investigating the creation of an ombuds role. The group is examining interventions that include peer coaching and mentorship, increasing opportunities for women surgeons to network, and education opportunities for surgical residents. This Gender Equity task force will evaluate and recommend which interventions will be most beneficial for the institution. The successful interventions will be rolled out throughout the hospital system.

# Improving physician well-being department-wide through chief leadership coaching

## Corresponding author:

Karim Awad, MD

**Atrius Health**

[Karim\\_Awad@atriushealth.org](mailto:Karim_Awad@atriushealth.org)

## Co-author(s):

Diana Dill, EdD

Les Schwab, MD

## LEARNING OBJECTIVES:

1. Show the evidence that their managers' behavior affects physicians' well-being
2. Identify the key drivers of managing for improved physician well-being
3. Be introduced to an effective and systematic intervention for shifting management behavior in the desired direction

## BACKGROUND:

Across industries, managers' behavior toward employees predicts employees' job satisfaction, retention, performance, and well-being, as well as organizational profitability (Buckingham, 1999). Similarly, the Mayo Clinic showed that physicians were more satisfied and less burned out when they had managers who developed, engaged, informed, and cared about them (Shanafelt et al, 2015). This participatory style of management engages individual physicians as collaborators, in contrast to either an authoritative or a hands-off style of management.

Participatory management is not easy or straightforward. There are, however, key component behaviors which are identifiable and teachable. We asked whether we could teach these behaviors to physician managers, with benefits for their reporting physicians' well-being and their own as well.

The Coaching for Engagement program. All departmental physician leaders participated in a 6-month program to support them in their supervisory roles via training and coaching. In a 2-hour experiential didactic they learned behaviors to promote connection, safety, empowerment, and optimism in their reporting physicians. Coaching included six monthly 1:1 one-hour meetings with an experienced coach. In the first meeting, participants identified personal management challenges and set development goals (e.g. identifying how I want to manage, improving group cohesiveness)

and action plans. In subsequent meetings they followed up on the previous session's action plans and developed new ones.

## METHODS:

All department physicians were asked to complete an anonymous online survey before and after the program, regarding their perceptions of managers' behavior (Mayo Participatory Management Leadership Scale, Shanafelt et al 2015), and fulfillment and burnout at work (Stanford Fulfillment Index). In addition, managers reported to their coaches at their first and last meeting their success to date accomplishing each goal (Goal Attainment Scaling: Spence 2007).

## RESULTS:

Impact on the department overall. Results suggest that through training and coaching we can shift managers' behavior towards participatory management. We have some evidence to support this approach to improving physicians' well-being--fulfillment improved; burnout, however, did not.

Impact on managers. Consistent with results from other industries, our results suggest leadership coaching can improve managers' well-being and resolution of management challenges. Fulfillment improved, burnout decreased, and improvement was reported for most coaching goals. In addition, group debriefing indicated that the experience was highly valued.

## DISCUSSION:

This pilot program demonstrates an innovative approach to improving physician well-being via training in participatory management behaviors and leadership coaching provided to chiefs. Evaluation results show it holds promise, although our methodological constraints limit generalizability.

# Joy in a primary care clinic: Work-related factors

## Corresponding author:

Bengt Arnetz, MD, PhD, MPH, MScEpi  
Michigan State University College of Human Medicine,  
Department of Family Medicine  
[arnetzbe@msu.edu](mailto:arnetzbe@msu.edu)

## Co-author(s):

Courtney Goetz, BA  
Sukhesh Sudan, MPH  
John vanSchagen, MD  
Frederic Reyelts, MD  
Judy Arnetz, PhD, MPH

## LEARNING OBJECTIVES:

1. View a conceptual model of joy in the healthcare team.
2. Identify malleable workplace factors that influence joy.
3. Identify possible interventions to achieve higher workplace joy.

## PROJECT OBJECTIVE/BACKGROUND:

Physician joy is critical to a thriving healthcare workplace. Since physicians work closely with members of their healthcare team, this interaction can influence their joy. Thus, to achieve higher physician joy, clinics should aim for higher joy in all members of the healthcare team.

While workplace joy is an increasingly important construct in healthcare, it has not been systematically defined. In this study, the researchers test a conceptual model of joy in a primary care clinic using a team-based care intervention. The model suggests that joy will be determined by individual and workplace factors, as well as by team members' perceptions of care quality. The aim of this study was to identify work-related predictors of joy at work among physicians and team members in an innovative primary care clinic.

## METHODS/APPROACH:

The MSU IRB determined this study was not research. All members of a healthcare team in a primary care clinic in Michigan were surveyed four times over two weeks during implementation of a team-based care intervention. There were 46 responses across the survey period. The 14-question survey measured individual,

workplace, and quality variables. Responses for all items were recorded on a 0 to 10 Visual Analog Scale. Individual variables were those measuring participants' ratings of their well-being at work, while work-related variables measured aspects of the work climate and processes. Quality variables were team ratings of the quality of care provided by their clinic. The dependent variable was a rating of the statement, "I feel joyful at work."

A three-step linear regression analysis was used to predict joy. Individual factors (stress and energy) were entered at the first step, workplace factors (skills utilization, efficiency, and psychological safety,) were entered on the second step, and quality was entered on the third step.

## RESULTS:

The final model accounted for 80% of the total explained variance, with all of the workplace factors, i.e. skills utilization (Standardized  $\beta = 0.40$ ;  $p < 0.05$ ), efficiency (Standardized  $\beta = 0.24$ ;  $p < 0.05$ ) and psychological safety (Standardized  $\beta = 0.39$ ;  $p < 0.05$ ) predicting workplace joy. None of the individual factors or quality predicted joy in the final model.

## CONCLUSION:

Joy in a primary care clinic can be enhanced by work processes that are efficient and sufficiently challenge team members' skills, and by creating environments where team members are able to discuss tough issues.

## ACKNOWLEDGEMENT:

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# Launching a peer support program

## Corresponding author:

Jill Shaw, DO

The Oregon Clinic

[jill.shaw@stanfordalumni.org](mailto:jill.shaw@stanfordalumni.org)

## LEARNING OBJECTIVES:

1. Demonstrate an approach to foster buy in and engagement for a peer support program
2. Establish a feasible timeline from concept to operationalization
3. Show impact of formal peer support program on Provider burnout and engagement levels

## PROJECT OBJECTIVE/BACKGROUND:

Implementation of a provider peer support program is done as the first part of a provider wellness initiative. Literature shows that patient safety is impacted by provider burnout and that providers do not usually seek formal support after an adverse event or error. This program was operationalized as the first part of a multi-phase provider wellness initiative over a 10-month period.

## METHODS/APPROACH:

This talk presents details of how an organization whose providers straddle multiple health systems and hospital sites initiated and implemented a formal peer support program. We will share before and after rates of burnout and detail how multiple asynchronous communication methods were used to raise awareness, bridge silos and promote a culture of safety. This project was the first step in a multi-phase provider wellness initiative.

## RESULTS:

Utilization matched that of large hospital system programs within the first 6 months of program implementation. Reduction in provider burnout documented.

## CONCLUSION:

Peer support program initiation is feasible and fundamental to provider wellness in this complex medical climate. It is possible to operationalize a formal peer support program in under 12 months.

# Literature and medicine: A narrative approach to improve wellness

## Corresponding author:

Mary Wierusz, MD

Washington Permanente Medical Group

[Mary.M.Wierusz@kp.org](mailto:Mary.M.Wierusz@kp.org)

## OBJECTIVE:

Use narrative medicine to improve physician wellness through a monthly Literature & Medicine program. Goals are to increase a sense of community, increase empathy for self and patients, improve communication skills and provider engagement.

## BACKGROUND:

The use of the humanities to address burnout is increasingly recognized as a valuable tool. Programs using literature to address physician wellness show decreased emotional exhaustion, improved teamwork, and decreased burnout.

Our Literature & Medicine Program is modeled after Dr. Suzanne Koven's successful decade-long program at Massachusetts General Hospital, which "works to increase open conversations about health and healthcare, to increase empathy, to increase interpersonal and communication skills."

## METHODS:

The initial pilot program of Literature & Medicine was held in Seattle for four months in Fall 2018. Dr. Suzanne Koven, current Writer-in-Residence at Massachusetts General Hospital, served as an advisor to facilitator Dr. Mary Wierusz, who has a background in narrative medicine. The group met monthly and was made up of 15 physicians of all stages of career and of varied specialties. Each month participants read essays, poems, short stories or books centered around a pertinent topic, including "Roles and Boundaries," "Wounded Healers," "When Things Go Wrong," and "Illness and the Family."

## CONCLUSION:

A Literature & Medicine program is a unique opportunity for providers to engage with colleagues, discuss different topics related to medicine in a safe setting, and gain new insight and skills. By approaching medicine with a humanities lens, providers increase community, collegiality and engagement.

Sessions were two hours long, held immediately after clinic hours on the main Seattle campus and dinner was provided.

## RESULTS:

Success of the program was determined by surveying participants. There were 11 respondents and all marked "Agree" or "Strongly Agree" to each question asked, including:

1. **This program helps enhance empathy and collegiality and decreases professional burnout.**
2. **I would recommend this program to my colleagues.**

Comments include:

- "Has turned out to be far more meaningful and helped with my sense of engagement with colleagues than I would have anticipated."
- "Unique opportunity to share thoughts around focused readings with colleagues across a range of specialties..."
- "Discussion of topics provided a means of people sharing their own personal life stories including the happy times and stressors, nurturing collegiality and a sense that you're not alone."

# Lovelace medical group's processes in addressing provider burnout

## Corresponding author:

Karla K. Giese, DNP

**Lovelace Medical Group**

[kkgiese@hotmail.com](mailto:kkgiese@hotmail.com)

## LEARNING OBJECTIVES:

1. Identify available tools useful for assessing provider burnout in an organization.
2. Discuss general and institution specific contributing factors to reduced work satisfaction.
3. Discuss personal values related to patient care and their contribution to work satisfaction.
4. Identify strategies to address irritation points uncovered with provider burnout assessment tools.

## PROJECT OBJECTIVE/BACKGROUND:

Provider satisfaction in the work place has garnered attention over the past few years—both from health system administrations, national organizations, providers, and patients. Even government is taking notice. Reduced satisfaction in the patient care arena is leading to an exodus of an important segment of healthcare providers, coinciding at a time when more and more clinicians are in an “employed” status as opposed to practice owners. Just as healthcare for all has (at least) largely become a reality, future provision of healthcare for the nation could be endangered if these current trends of clinician turnover continue.

Lovelace Medical Group is a growing multi-specialty group of 140+ clinicians that noted high levels of clinician turnover, particularly in primary care since its purchase by a large health system in 2013. The result for patients was disrupted access, disrupted continuity of care, and increased patient complaints, while remaining clinicians shouldered the increased patient load left by these disruptions.

The project objective was to improve the well-being of the group's clinicians by addressing irritation points contributing to reduced work satisfaction and burnout.

## CONCLUSION:

Providers are trained to quickly diagnose and treat problems. In contrast, organizational change is slow. A complex, dynamic, nonlinear health system whereby changes were slower to implement than desired, but still achievable was discovered. Challenges and successes are discussed.

## METHODS/APPROACH:

A guiding coalition of providers formed, and then set in motion the process of burnout assessment using Maslach's Burnout Inventory and Areas of Worklife Survey. Identification and implementation of strategies aimed at irritation points were then employed.

## RESULTS:

Seventy percent of providers had at least 1 symptom of burnout on the MBI. Consistent with national literature, the electronic health record, lack of autonomy, lack of control over one's clinical practice including equipment choices, staff choices, office space, and scheduling, organizational communication, trusting administration, and lack of recognition were among the most frequent irritation points.

# Optimization strategies to enhance physician well-being and alleviate EHR-related burnout

## Corresponding author:

Shadi Hijjawi, MD, MBA

CaroMont Health

[shadihijjawi@yahoo.com](mailto:shadihijjawi@yahoo.com)

## LEARNING OBJECTIVES:

1. **Learning objective:** Highlight important strategies and crucial steps that can be utilized by health institutions to help provide stress-free environment for healthcare providers, especially in dealing with the EHR.
2. **Learning objective:** Provide a roadmap to help guide IT medical leaders to begin or jump start their informatics program.
3. **Learning objective:** Share experience of an intervention and training plan at a single institution to improve physicians' proficiency in using EHR.

## PROJECT OBJECTIVE/BACKGROUND:

Recently, physician well-being has been an important concern for many health authorities. Rates of physician stress and burnout reached very high and alarming levels. Data about EHR-related burnout is limited, including the magnitude of the problem and the efforts to address and alleviate it. This project highlights important strategies to address this growing problem and provide guidance on how an informatics team can help engage healthcare providers. In addition, it will show how training and personalization for EHR tools improve physician's perception and utilization of the EHR.

## METHODS/APPROACH:

Concentrate on engaging healthcare providers with a newly established provider informatics team. Team was structured with clear vision, mission and values as an essential component for success. Engagement strategies include: revamped onboarding and rounding program, 1:1 education sessions, different team coordination, workflow evaluation, outreach and marketing strategies, in addition to leadership engagement. An important component of this structured approach is to continuously measure healthcare providers happiness and areas of struggle while dealing with the EHR. Also,

to solicit constructive feedback from key stakeholders such as senior leadership and medical directors.

A quality initiative was conducted between November 2017 and May 2018, to identify and evaluate less efficient providers using Epic ambulatory EMR at a community hospital. Efficiency and proficiency reporting system called "Provider Efficiency Profile" or PEP in Epic was used to identify 67 low performing physicians and ACPs. Physician optimization surveys were collected before and after training or intervention plan.

## RESULTS OF QUALITY INITIATIVE:

After a 16-week plan of individual 1:1 optimization sessions, 57 providers completed training and 52 had a final follow up PEP evaluation on their performance using Epic. Participation in the pre-optimization survey was 74% while it was 65% in the post-optimization survey. After optimization sessions, EHR-related burnout was less reported, and providers felt more proficient using most Epic system functions. Providers' Efficiency (time) was less amenable for change and improvement as compared to Proficiency (personalized tools). Optimization efforts helped save some time in the Epic EMR which was reflected in less late providers' activity.

## CONCLUSION:

Healthcare institutions should start their initiative to maintain physician's well-being by well-designed plans that should include subjective feedback from providers, utilize supportive tools or feedback reports, and informatics optimization teams. IT medical leaders can significantly impact their physicians' EHR experience by establishing a well-structured Informatics team. Engagement strategies are very important to tackle various issues related to dealing with EHR.

# Promoting a healthy workforce: Development and implementation of a statewide program for medical student well-being

**Corresponding author:**

Alexandria Polles, MD

**FL Professionals Resource Network**[drpolles@flrpn.org](mailto:drpolles@flrpn.org)**Co-author(s):**

Lisa J. Merlo, PhD, MPE

## LEARNING OBJECTIVES:

1. Explain the need to implement high quality evaluation and monitoring services for medical students.
2. Describe a roadmap toward achieving statewide cooperation among various institutions dedicated to developing a healthy physician workforce.
3. List the benefits of this coordinated effort in improving medical student access to services.

## BACKGROUND:

The Professionals Resource Network (PRN) is Florida's consultant to the Department of Health (DOH) on matters of potential impairment among physicians. We undertook a project to expand services to medical students to address mental health difficulties through assessments and monitoring where indicated.

## METHODS:

The foundation of the expansion was built with the support of the Florida Medical Association (FMA), the Council of Florida Medical School Deans (CFMSD), and the DOH. The FMA assisted with obtaining statutory approval through the state legislature to expand services to non-licensed health professionals in training. The CFMSD helped onboard the state's 10 medical schools and establish contractual agreements with individual institutions to provide evaluation and monitoring services for students. Liaisons were designated by each institution, which aided the identification of students in need of services, and supported the process of promoting excellence in assessment, monitoring, and advocacy for participants. Two medical student liaisons were added as Advisory

Members of the PRN Board with the goal of providing true peer support for participants. Finally, in order to assist with the financial burden that extensive evaluations can entail, a joint fund for evaluations supported by the DOH and the schools was established. PRN also negotiated with program-approved evaluators to postpone payment for services (a 30-day delay) and to provide discounted rates to students.

## RESULTS:

PRN has seen increased referral/participation of medical students as a result of these initiatives (from 2 student participants in 2006 to 23 active student participants in 2018-2019). This reflects increases in the number of schools referring their students, from 3 schools in 2009 to 8 schools by 2019, with the expectation that the institution with a newly opened allopathic program at the same institution as their osteopathic school (10 schools total) will follow accordingly. Since the scholarship program was initiated 10 months ago, 18 students have been referred to PRN, with 8 students taking advantage of the scholarship. Preliminary student feedback regarding the program will be shared.

## CONCLUSION:

Changing the medical school "system" to promote early referral/intervention for students with potentially-impairing conditions, rather than discouraging students (implicitly or explicitly) from admitting their struggles, will benefit the well-being of the physician workforce. By setting up a standardized process, obtaining buy-in from medical school Deans, and securing financial assistance from the DOH, we were able to facilitate access to care for students. Multiple stakeholders contributed to these efforts, and fostering inter-institutional cooperation was key.

# Promotion of SELF CARE practices through a group-wide day of volunteerism

**Corresponding author:**

Richele Thornburg, MS

**Hawaii Permanente Medical Group**

[Richele.Thornburg@kp.org](mailto:Richele.Thornburg@kp.org)

**Co-author(s):**

David Bell, MD

Lois Chiu, MD

Benjamin Chun, MD

Patricia Cole

Joshua Fouts, BCBA-D

Lois Gregg, MD

Peggy Latore, MD

Burt Moritz, MD

Scott Nishikawa, MD

Kimmie Ouchi, MD

## LEARNING OBJECTIVE:

To encourage broader connections with community and colleagues and promote SELF CARE practices through an Annual Day of Service

## PROJECT OBJECTIVE/BACKGROUND:

Starting in 2010, our medical group has hosted an Annual Day of Service on the Martin Luther King Jr. holiday, enhancing physician connections in communities we serve. Since 2017, it has served as a time to promote the SELF CARE practices of personal resilience, an aim of the Stanford WellMD Model. The January 21, 2019 event was themed ho'oku'ikahi ("to unify"), speaking to cultural, professional, and personal bonds that form when individuals from diverse backgrounds come together for a common goal.

## METHODS/APPROACH:

Employees of our organization, along with family and guests, partnered with local non-profits supporting educational programs to preserve Hawaii's cultural traditions, environmental/ecological systems, and promote economic/agricultural sustainability. Programs

were set in mountain/coastal portions of ahupua'a (traditional and historical wedge-shaped land divisions from mountains to sea) on Oahu, Maui, Hawaii Island, and Kauai. Activities included: preparation/maintenance of lo'i (terraced patches used to farm taro, a critical staple of the Hawaiian agricultural society), restoration of native forests, removal of invasive species, planting native species, restoration of ancient Hawaiian fishponds, removal of mangroves/invasive limu (algae), trail-building, and coastal/stream restoration.

## RESULTS:

Nearly 1100 volunteers across eight sites on four islands participated in the Annual Day of Service, with > 95% of those surveyed rating the experience as "good" or "excellent."

## CONCLUSION:

Our Annual Day of Service is an enriching, fulfilling, and rewarding experience of volunteerism and partnership for physicians fulfilling our mission to improve the health of the communities we serve, and has been a fruitful investment inspiring SELF CARE practices at work, in the home, and in the broader community.

# Restoring a health system culture that supports physician engagement and professional fulfillment in the era of emphasis on patient experience measures

## Corresponding author:

Jordan Chun, MD

Washington Permanente Medical Group

[Jordan.S.Chun@kp.org](mailto:Jordan.S.Chun@kp.org)

## LEARNING OBJECTIVES:

1. Recognize that imprecise use of patient experience data can damage organizational culture and sour feelings toward the important work physicians do, resulting in disengagement and learned helplessness.
2. Understand that conscientious data use is an opportunity to mitigate data limitations, avoid organizational inequity, and improve critical physician engagement.
3. Learn to lead physician improvement in patient experience by “supporting up” not “managing down.”

## PROJECT OBJECTIVE/BACKGROUND:

Washington Permanente Medical Group is one of eight Permanente Medical Groups (PMGs). Together with the Kaiser Foundation Health Plan of Washington, we are Kaiser Permanente. In 2018, staff engagement surveys showed significant room for improvement in physician attitudes towards patient experience data (i.e. Press Ganey) as well as challenges to physician perception of success and satisfaction.

## METHODS/APPROACH:

We sought to honestly and transparently understand our current state and how we got there. We conducted a listening tour of physicians to identify the drivers of our culture. We worked with our Press Ganey partners to make sure we truly understood our data, their

limitations, our misunderstandings, and our missed opportunities to mitigate negative impacts to culture and physician engagement.

## RESULTS:

A significant proportion of physicians linked their feelings of demoralization directly to our organizational approach to patient experience and use of Press Ganey data. In analyzing our service experience structure and culture, we developed an understanding that interdependencies exist among all the drivers of value-based, patient-centered health care - safety, quality, experience, and physician engagement - and that engagement is predicated on a culture of wellness.

## CONCLUSION:

Our executive leaders committed to organizational restructuring around service experience in order to reinvest in a culture and practice environment that allows those delivering the care to be successful.

We developed a new data use strategy and a coordinated resource toolkit to equip physician leaders to more conscientiously inform our service experience improvement efforts within a mindful, systems thinking approach. We continue to work to transform our culture by treating Safety, Quality, Service Experience, and Clinician Engagement & Professional Fulfillment as interdependent, complementary, and of equal importance.

# Should regulators screen for burnout among members? Inclusion of a physician burnout screen in annual licensure renewal

## Corresponding author:

Delaney Wiebe, BSc, MPH

College of Physicians & Surgeons of Alberta

[Delaney.wiebe@cpsa.ab.ca](mailto:Delaney.wiebe@cpsa.ab.ca)

## Co-author(s):

Nicole Kain, RN, BNSc, MPA, PhD

Ed Jess, BA

Nigel Ashworth, MBChB, MSc

Karen Mazurek, MD

Jeremy Beach, MBBS, MD

## LEARNING OBJECTIVES:

1. Participants will ascertain the current state of burnout in Canadian physicians
2. Participants will understand the importance of screening for burnout by a regulator
3. Participants will learn how one medical regulatory authority in Canada is re-designing its competence program to include both quality assurance and quality improvement components

## PROJECT OBJECTIVE/BACKGROUND:

Physician burnout is a major concern for medical regulatory authorities (MRAs), as current literature delineates burnout as contributing to poor physician performance. As MRAs strive to be innovative, transparent and evidence-based, their traditional role is expanding to include not only quality assurance activities but to also incorporate quality improvement initiatives, including physician health supports and wellness promotion. The College of Physicians & Surgeons of Alberta (CPSA) is the MRA in the province of Alberta, Canada, regulating the approximate 11,000 physicians in the province. We propose the introduction of a burnout screen to the annual physician licensure renewal process in Alberta, as part of the CPSA's effort to combat burnout and promote physician health and well-being.

## METHODS/APPROACH:

Recently, an evidence-based approach to re-designing the continuing competence (CC) program at the CPSA has been undertaken. This re-design includes iterative updates on the annual Renewal Information Form (RIF), which requires completion by physicians on an annual basis in order to maintain their permit to practice medicine in Alberta. The RIF is updated on an annual basis to include questions relevant to physician performance, including items detailing the

physician's practice and other factors (both individual and system) that may influence performance. We conducted a mixed-methods approach to physician consultation as part of the CC program re-design, including solicitation of physician feedback via various surveys and focus groups/interviews, in addition to conducting an extensive literature review exploring risk and support factors to physician performance, and performing multiple multivariate analyses of regulatory data. Feedback emphasizes a desire for the CPSA to better support the work-life balance and wellness of physicians; while the literature review has revealed clear associations between physician burnout and declining performance. For the 2020 RIF, we propose to include a 2-item burnout screen (modified from Maslach) with the stem: "Please indicate how often you have the following feelings about your work," and statements: "I feel burned out from my work" and "I have become more callous towards people since I took this job," answered on a 7-point Likert scale (ranging from "Every day" to "Never").

## RESULTS:

Results of this initial inclusion of a burnout screen to the annual licensure renewal will help to guide CPSA programs and supports for physician well-being and health.

## CONCLUSION:

Screening by a regulator will assist in promoting the health and well-being of physicians, thereby improving the quality of medical care provided to the public.

# The impact of physician/colleague testimonials on a culture of wellness

## Corresponding author:

Peggy Latare, MD

Hawaii Permanente Medical Group

[Peggy.Latare@kp.org](mailto:Peggy.Latare@kp.org)

## Co-author(s):

David Bell, MD

Lois Chiu, MD

Benjamin Chun, MD

Patricia Cole

Joshua Fouts, BCBA-D

Lois Gregg, MD

Burt Moritz, MD

Scott Nishikawa, MD

Kimmie Ouchi, MD

Richele Thornburg, MS

## LEARNING OBJECTIVE:

1. Discover how our medical group has used a “clinic closure day” to focus on clinician well-being
2. Understand how a personal testimonial by a clinician colleague can positively set the tone for transparency during professional meetings
3. Learn how our medical group has made SELF CARE a part of its culture, including the use of financial incentives

## PROJECT OBJECTIVE/BACKGROUND:

A culture of wellness is foundational in the Stanford WellMD model of physician well-being and professional fulfillment. Inclusion of opportunities to promote self-care values and behaviors, including compassion for self and colleagues, is important within the organizational work environment.

## METHODS/APPROACH:

Use of physician/professional colleague testimonials in group-wide professional meeting to develop empathy, demonstrate investment by leadership in provider well-being and engage individuals in promoting healthy self care behaviors.

As part of our medical group’s mission to make our group the “Best Place to Work, Deliver and Receive Care,” we have hosted three Professional Development Days (PDDs) over the past four years dedicated to physician health and wellness. The most recent Health and Wellness PDD in June 2018 was attended by over 500 physicians, providers and staff.

In each meeting, after the President and Executive Medical Director highlighted the Institute for Healthcare Improvement’s “Quadruple Aim” and the necessity of care of the provider in meeting the challenges of healthcare delivery today, an inspirational testimonial of resiliency from a physician colleague was presented,

which navigated their personal journey through a career, personal or health challenge.

With 78% of physicians reporting at least some symptoms of professional burnout, increasing numbers of physicians at risk for reducing work hours or leaving medicine entirely<sup>1</sup>, and the highest suicide rate of any profession, over twice that of the general population (American Psychiatric Association (APA) 2018), the executive leadership felt it critically important to reinforce a supportive professional environment without stigma or obstacles to seeking appropriate care and treatment. Further, these personal messages served to further develop empathy and mindfulness for our colleagues and ourselves. The testimonials also helped to introduce incentive measures for that year: in 2015, viewing of a video outlining SELF CARE practices for personal and professional resilience, followed by attestation of mindful engagement in at least two areas of SELF CARE over a 3-month period, and in 2017 and 2018 attention to, and closure of, individual health maintenance and preventive care gaps.

## RESULTS:

Improvements in Quality of Work Life Survey data – “The organization cares about my well-being,” and “I am satisfied with how I am taking care of myself.”

## CONCLUSION:

Personal testimonials of resilience or personal or professional challenges by physician colleagues in the setting of a professional meeting sponsored by executive leadership is an effective and impactful way to foster awareness of the critical need for care of the caregiver, as well as supporting a destigmatized culture of wellness in a health care delivery organization.

# Using the Institute for Healthcare Improvement (IHI) joy in work framework in a large multispecialty group practice (Washington Permanente Medical Group)

**Corresponding author:**

Susan Warwick, MD

Washington Permanente Medical Group

[Susan.e.warwick@kp.org](mailto:Susan.e.warwick@kp.org)**Co-author(s):**

Kristen Barton

**LEARNING OBJECTIVES:**

1. Apply the IHI joy in work framework organization-wide in a large multispecialty group practice.
2. Identify opportunities for local and system-wide change initiatives based on qualitative data from front-line clinicians.
3. Outline how clinician well-being impacts organizational goals.

**PROJECT OBJECTIVE/BACKGROUND:**

The integrative, patient-centered structure of Permanente Medical Groups is uniquely positioned to address burnout; a collaborative practice model with fewer administrative tasks and no fee-for-service incentives. However, engagement and burnout scores are relatively similar to medical groups throughout the country. Our framework identified supports and barriers that impact physician satisfaction.

**METHODS/APPROACH:**

Using the IHI 4-step model to improve joy in work, we engaged front-line providers and all levels of leaders this last year with three processes: 1) enlisted local wellness champions to gather input and share between front-line and senior leaders; 2) asked providers what matters most using the IHI framework, identified 'pebbles and boulders' that make or break a satisfying day, and then informed operational leaders of major

barriers and potential quick wins; and 3) held senior leaders responsible for addressing both major and minor barriers.

**RESULTS:**

Wellness champions are integrated in local and regional meetings, serve as the "voice" of front-line providers, and stay apprised of issues facing our senior leaders. They're aware of work underway to address provider concerns and communicate with operational leaders about change initiatives, i.e., increased MA hiring and vacation in-box coverage. The IHI framework successfully informs how we think about joy in work; senior leaders understand the principles and their role in its success. The greatest contribution to the success of this work is the unwavering support and investment of our executive sponsor and CEO.

**CONCLUSION:**

Using the IHI Framework helped us over the course of one year to rapidly raise awareness and create a culture of ownership around physician engagement and experience at work. As we continue this focus we expect improved engagement and decreased burnout scores on national and local benchmarked surveys.

# Well-being among surgery residents: Findings inform evolution of mindful self-compassion course

## Corresponding author:

Jessica Barnhill, MD  
Department of Physical Medicine and Rehabilitation  
University of North Carolina at Chapel Hill  
[jbarnhil@email.unc.edu](mailto:jbarnhil@email.unc.edu)

## Co-author(s):

Timothy Fareel, MD  
Samantha Meltzer-Brody, MD  
Michael Meyers, MD  
Karen Putnam, PhD  
Karen Bluth, PhD

## PROJECT OBJECTIVE/BACKGROUND:

Given widespread levels of burnout among surgery residents, this study measured the impact of an abbreviated Mindful Self Compassion course (MSC) on resident well-being. MSC raises awareness of self-criticism and teaches kindness toward self. Courses that teach mindfulness and self-compassion skills have been found to lower depression, stress, anxiety, and burnout.

## METHODS/APPROACH:

All surgery residents at a large university hospital participated in a 4-week (6-hour) abbreviated version of MSC. Well-being was measured by pre and post course changes in the Maslach Burnout Inventory, Personal Health Questionnaire-9, Perceived Stress Scale, Spielberger State-Trait Anxiety Scale, Brief Resilience Scale and the Brief Self-Compassion scale. Focus group data were collected at the end of the course. Based upon this data, the second iteration of the course was offered exclusively to first year residents.

## RESULTS:

When examining the sample (n=32) of surgery residents, 100% met the Maslach scale criteria for burnout at both pre- and post-intervention. Pre- to post-intervention measures did not show any quantitatively significant changes.

Qualitative findings from focus group data revealed that Mindful Self-compassion was challenging for participants. One resident acknowledged, "We like doing things that we are good at, and we are not good

at being compassionate toward ourselves." Another resident noted, "The concept of mindfulness is a big shift in the mentality of our entire field. If we are not uncomfortable with it, (then) that change is never going to happen." Despite the challenges of learning new skills and shifting cultural norms, residents expressed gratitude and support for continued wellness programming. For example, residents said, "(this was) a very positive first step to attempt to address a problem that has been ignored for a really long time", "just the initiative to try to help us meant a lot". Focus group data also revealed areas for continued course refinement. Specifically, it was noted that forming smaller groups of residents who are early in training, would create a safer environment.

The second iteration of the course, involving exclusively first year surgery residents, was more positively received. Residents appreciated the nurturing environment, reported practicing mindful self-compassion tools, and requested additional sessions.

## CONCLUSION:

Physician burnout is a pervasive and systemic problem. This study highlights the importance of qualitative inquiry to reveal nuances in participant experience. These nuances are not captured by quantitative measures of well-being. Specifically, limiting the course to first year surgery residents created a nurturing environment where residents were more receptive to learning mindful self-compassion skills.

# Poster presentations

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Research

# A consultative approach to enhancing the wellness of department-based teams

**Corresponding author:**

Amanjot Sethi, MD

**The Permanente Medical Group**[Amanjot.S.Sethi@kp.org](mailto:Amanjot.S.Sethi@kp.org)**Co-author(s):**

Zhihong Zhong, MD

Theodore Levin, MD

Laurel Seivold

Deborah Sopko

Sarah Hughes

Rahul Parikh, MD

## LEARNING OBJECTIVES:

1. Understand the key systemic drivers of wellness and engagement in department-based teams.
2. Understand how A3 problem solving can be used to develop a consultative wellness initiative.
3. Apply a consultative approach to address department specific wellness needs of physicians and staff.

## OBJECTIVE/BACKGROUND:

Burnout is a critical issue affecting the healthcare industry nationwide. The impact of burnout is not limited to physicians alone. This systemic issue can affect all members of the healthcare team and the patients they care for. Healthcare organizations often respond with personal wellness programming aimed at supporting the individual. While these well-intentioned efforts have benefit, they do not always address needs specific to department-based teams. With this in mind, we developed a consultative approach to address department specific wellness needs of physicians and staff. We engaged departments to better understand the day to day workplace impediments to achieving their wellness goals.

## METHODS:

Using an A3 problem-solving process, we developed a consultative wellness initiative and piloted it in the Gastroenterology (GI) department. The leadership of this department was engaged early on to ensure an understanding of specific needs and alignment on expected outcomes. We developed a 16-item wellness survey that measured how individuals experienced key drivers of wellness and engagement in the workplace and deployed the survey to GI after these introductory meetings. A total of 16 physicians and 14 employees responded to the survey. Based on survey results, we codesigned action plans that targeted specific barriers to wellness at work. A follow-up survey will be administered after the implementation of these interventions.

## CONCLUSION:

Through a consultative wellness approach, we actively engaged teams of physicians and staff in identifying department specific wellness needs and co-designing programs intended to bridge the gap between their current state and one of improved health and well-being.

## RESULTS:

The survey results showed that physicians and staff were most concerned about the following:

- Increasing collegiality and teamwork
- Having manageable workloads
- Ensuring psychological safety

The lowest scores for many items were seen among mid-career physicians. A disparity among leadership and non-leadership roles was also demonstrated, with those in non-leadership roles scoring significantly lower on items addressing psychological safety, recognition and professional development.

We shared aggregated results with all members of the GI department in discussions aimed at the codesign of solutions and programming. Through this process, action plans and timelines were developed. The GI department selected a physician wellness champion to partner with our team, as well as a staff liaison to coordinate and implement wellness programs. We coached department wellness leads to facilitate wellness events, provide “bite-sized” wellness tips at huddles and meetings, and use A3 problem solving to address specific issues that arose.

Some of the wellness programs offered included ergonomic work station evaluations and adjustments, agenda-free luncheons with chair massages, technology sessions, and best-practice sharing sessions. A wellness survey will be deployed again in this department to measure the impact of these interventions.

# A longitudinal assessment of moral distress and burnout during pediatric residency

**Corresponding author:**

Kenneth Lee, MD

**BC Children's Hospital**

[kenshlee@alumni.ubc.ca](mailto:kenshlee@alumni.ubc.ca)

**Co-author(s):**

Dianna Louie, MD

Elaine Cheung, PhD

Dylan King

Kim-Ee Chong

Peter Dodek, MD, MHSc

## LEARNING OBJECTIVES:

1. Identify the frequency of moral distress and burnout in pediatric residents.
2. Describe the effect of demographics and stage of training on levels of moral distress and burnout.
3. Explain the connection between certain clinical rotations and levels of moral distress and burnout.

## INTRODUCTION:

In Pediatrics, nearly 40% of residents report burnout (Baer. Pediatrics. 2017) but the incidence of moral distress is unknown. Furthermore, associations between demographics and these phenomena, and their temporal course over residency, is unknown. This study examined the incidence, associations, and temporal course of moral distress and burnout in Pediatrics residents.

## METHODS:

86/101 Pediatrics residents from R1-R4 completed the Moral Distress Scale-Revised thrice yearly and Maslach Burnout Inventory annually, from July 2016 to October 2018. Residents also rated the frequency and level of disturbance of moral distress for each rotation. Residents were assigned a unique identifier so that their responses could be tracked longitudinally. We used longitudinal mixed effect modeling and generalized estimating equations to account for clustering of data.

## CONCLUSION:

Although moral distress is low in Pediatrics residents, this distress contributes to potential attrition. Analysis of rotation-specific moral distress suggests that high-acuity rotations predispose residents to increased levels of moral distress.

## RESULTS:

Although the average moral distress score was relatively low (20; maximum possible: 336), 10% of respondents stated that they considered quitting residency in the past due to moral distress but did not leave. Propensity to consider leaving a position due to moral distress differed among residency cohorts over time, and in one cohort, that propensity was higher during the winter of R2.

Analysis of rotation-specific moral distress revealed that the highest levels of moral distress occurred after rotating through international electives and PICU, whereas lowest levels of moral distress occurred after community pediatrics.

7.1% of pediatric respondents met criteria for burnout. Although rates of burnout did not differ as a function of residency cohort over time, burnout did increase in one cohort between R1 and R2; this finding was explained by a decrease in personal accomplishment. Female residents reported higher burnout scores relative to male residents, and this appeared to be driven by higher emotional exhaustion in females.

# Addiction and personality among physicians: The impact of an integrated treatment program on the NEO

## Corresponding author:

Jasper Werby, BA

Northwestern University Feinberg School of Medicine

[jasperwerby@gmail.com](mailto:jasperwerby@gmail.com)

## Co-author(s):

Priscilla Lui, PhD

Jeffery Caldcleugh, MS

Daniel Angres, MD

## BACKGROUND:

Addiction among physicians has long been a significant problem, intimately tied to burnout and fatigue. Substance abuse among the physician population is particularly dangerous, as it can lead to both damage to the provider as well as decreased quality of care. Personality scores using the NEO have been well validated in terms of understanding addiction. Several of the NEO domains have been studied in relation to addiction, with higher Neuroticism and lower Conscientiousness and Agreeableness associated with both addiction and relapse. Few studies have characterized the personality shifts in the NEO of physicians as they undergo a treatment program.

The goals of this project were to characterize the personality shifts of a physician population and then identify any risk factors for relapse among that population.

## METHODS:

This study was conducted at a single center program that uses a range of techniques including mindfulness based treatment, CBT, DBT, as well as standard medical management. 140 physicians with predominantly alcoholism were enrolled in the study over the course of 4 years and took the NEO inventory test at the beginning and end of their program. Their data was then analyzed using STATA with logistic regression and 2 sample t-tests. The logistic regression was constructed by first assessing for significant variables that were collected using a univariate analysis, and constructed in a manner elaborated by Zhang et al (2016) to create a model with the least factors possible while preserving predictive utility.

## CONCLUSION:

With a mixed modality approach, it is possible to modify personality features and an initially high neuroticism for instance does not necessarily mean poor outcomes in treatment. With a personality test at the beginning and the conclusion of treatment, one can identify higher risk patients and focus the appropriate resources on them.

## RESULTS:

The overall abstinence rate at 1 year was 81.48%. Neuroticism significantly decreased over the course of the program ( $p=0.0006$ ) and openness increased ( $p=.0225$ ). After adjusting for all significant variables and systematically in a stepwise fashion removing variables that were the least significant in the logistic regression, the choice to use continuing care was the most significant variable in the logistic regression (OR .08,  $z=-4.01$ ,  $p=0.000$ ). The addition of personality variables into the model significantly increased the predictive utility of the model, as judged by the pseudo R-squared.

# An apple a day keeps the doctor well: Association between physician burnout and self-reported diet and exercise

## Corresponding author:

Andrew J. Klein, MD  
Clinical Instructor of Medicine, University of Pittsburgh  
School of Medicine  
[kleinaj@upmc.edu](mailto:kleinaj@upmc.edu)

## Co-author(s):

Jennifer Berliner, MD  
Randall Smith, BS  
Jane M. Liebschutz, MD, MPH

## BACKGROUND:

Culture of wellness, efficiency of practice and personal resilience are three essential domains that contribute to physician well-being. Diet and exercise are two modifiable elements within personal resilience. We evaluated the association between burnout and self-reported fruit and vegetable consumption, exercise, and weight among physicians within a large multi-hospital institution.

We performed a cross-sectional survey of 7385 attending physicians within a large integrated healthcare system. Participation was anonymous and voluntary. The Risk Authority, part of the Physician Wellness Academic Consortium (PWAC), administered the survey as part of a quality improvement initiative. The survey included a 10-item burnout instrument from the Stanford Professional Fulfillment Index. Our primary burnout measure was an average of the 10-items (values 0-4) with a score of  $>1.33$  defined as burnout. We examined independent predictors of burnout by four questions (agree/disagree) on food, exercise and weight: "I eat at least 2.5 cups of vegetables daily"; "I eat at least 2 cups of fruit daily"; "I perform at least 150 minutes per week of moderate physical activity or 75 minutes per week of vigorous physical activity"; and "I am within 5 pounds of my ideal body weight". Statistical analysis was performed using chi-squared and linear regression,

adjusting for age, gender, gratitude, control over schedule, peer support, organizational value alignment, and attitudes on the electronic health record.

## RESULTS:

A total of 3373 (46%) participants responded. The overall prevalence of burnout was 40%. The prevalence of burnout was significantly lower among participants who reported eating at least 2.5 cups of vegetables daily (N=2825, 38% vs 50%,  $p<0.001$ , unadjusted  $b=0.127$ , adjusted  $b=0.061$ ), those who reported eating at least 2 cups of fruits daily (N=2821, 37% vs 48%,  $p<0.001$ , unadjusted  $b=0.134$ , adjusted  $b=0.069$ ), those who reported at least 150 minutes of moderate or 75 minutes of vigorous exercise per week (N=2825, 36% vs 49%,  $p<0.001$ , unadjusted  $b=0.144$ , adjusted  $b=0.080$ ), and among those within 5 pounds of their ideal body weight (N=2816, 36% vs 48%,  $p<0.001$ , unadjusted  $b=0.146$ , adjusted  $b=0.092$ ).

## CONCLUSION:

This data suggests that diet and exercise explain 6-9% of physician burnout in a large multi-hospital healthcare system when controlling for culture of wellness and efficiency of practice. It is not known whether improving diet and exercise can help to reduce or mitigate burnout or whether less burnout leads to improved diet and exercise. Our results suggest this is a promising area for further investigation.

# An inclusive, multifaceted approach for a better work environment

**Corresponding author:**

Amelia Grover, MD

**Virginia Commonwealth University**

[amelia.grover@vcuhealth.org](mailto:amelia.grover@vcuhealth.org)

**Co-author(s):**

Nital Appelbaum, PhD

Nathaniel Lee, MD

Niluka Wickramaratne, MD

Doris Farquhar, PhD

Sally Santen, MD

## LEARNING OBJECTIVES:

1. Identifying the multiple sources of data available for needs assessment of the work environment
2. Identify the importance of evaluating the environment through multiple different views
3. Identify the importance of engagement of a team approach for systemic change

## PROJECT OBJECTIVE/BACKGROUND:

There are many drivers that lead to physician burnout. From an organizational perspective creating an environment where all members feel included and respected is a key factor in engagement. By using multiple assessment tools and methodologies we devised a more inclusive approach to set departmental goals that represented the needs of our diverse members.

## METHODS/APPROACH:

Our triangulation efforts included four main data sources. First, in 2018 our department engaged an external Evaluation and Assessment Team to conduct four 60-minute confidential focus groups with Surgery residents to gain insight into strengths and opportunities for improvement within our educational program. The semi-structured interview guide was based on gaps identified from the 2017 ACGME Resident Survey; residents were also asked to share ideas for the department to improve resident well-being. Second, we had our program's past ACGME Resident and Faculty Survey reports to reflect on program effectiveness. Third, we had internal comparison data for residents

and faculty on facets of the learning environment (e.g., psychological safety, perceived organizational support) and well-being (e.g., stress, positive/negative well-being). Finally, we data our department's results for the AMA Physician Well-Being survey. We collated this data, identified themes and then organized a retreat including key stakeholders to identify areas of development within the department.

## RESULTS:

Through data-triangulation opportunities were identified for work in the area of psychological safety and perceived organizational support for residents and faculty. Stress with a lack of adequate time to complete work and mistreatment were identified as opportunities for improvement. Resident focus group results identified opportunities for increased teaching in the clinical environment, resident resources and support activities that foster a sense of accomplishment. Faculty development on clinical teaching and providing feedback, along with improving team dynamics in interprofessional settings.

## CONCLUSION:

In response to our findings, we focused on three areas of improvement. Improving the learning environment included promoting feedback based on the Pendleton model and increased learning opportunities in education/teaching. Improvements in psychological safety focused on development of emotional intelligence with education communication, personality assessment and environmental awareness. Finally, to evaluate systems opportunities a position was created for an associate chair of faculty development, a departmental committee for Development, Engagement, and Wellness and onsite health programs. We plan to evaluate the effectiveness of these broad interventions through improvements in the ACGME surveys and our internal survey in June 2019.

# Anonymous versus confidential burnout surveys

**Corresponding author:**

Timothy D. Riley, MD

**The Pennsylvania State University**

[Triley1@pennstatehealth.psu.edu](mailto:Triley1@pennstatehealth.psu.edu)

**Co-author(s):**

William J. Curry, MD, MS

Michael J. Beck, MD

Arthur Berg, PhD

Jessica A. Parascando, MPH

Mack T. Ruffin IV, MD, MPH

## LEARNING OBJECTIVES:

1. Describe the evidence regarding use of non-anonymous burnout surveys in healthcare
2. Describe the risks and benefits of non-anonymous burnout surveys in a large academic department
3. Discuss one successful approach to administering non-anonymous burnout surveys

## PROJECT OBJECTIVE/BACKGROUND:

Burnout is a prevalent problem among clinicians with negative personal and professional consequences. Assessments of burnout are typically done anonymously to facilitate psychological safety. This limits the capacity of local leadership to help struggling providers and reduces the level of detail available for demographic analysis. Non-anonymous surveys may facilitate outreach to struggling providers or targeted interventions for at-risk populations.

## METHODS/APPROACH:

The Maslach Burnout Inventory was administered to physician faculty and advanced practice providers in an academic department of family medicine. A wellness officer was identified within the department and served as an honest broker to keep non-anonymous survey

responses confidential. Respondents had the option of taking the survey anonymously or confidentially. Anonymous respondents were allowed to withhold any demographic information to ensure anonymity.

## RESULTS:

Of the 109 providers, 67 responded (response rate 61%) with 46 (69%) doing so confidentially. Burnout rates were similar between groups: 48% among confidential respondents, and 43% among anonymous respondents ( $p = 0.71$ ). Subscales of the MBI also showed no significant differences. No demographic trends could be discerned among anonymous respondents because a large proportion of them withheld demographic data. Younger confidential respondents were more likely to exhibit depersonalization ( $p = 0.01$ ).

## CONCLUSION:

Most participants chose to respond confidentially. There was no significant difference in the level of burnout between confidential and anonymous respondents. Our findings refute the conventional wisdom that clinicians require anonymity to respond to burnout surveys. The next steps are to determine if struggling individuals accept and respond to tailored support and intervention, and if interventions can be targeted to at-risk groups identified through non-anonymous demographics.

# Bringing joy back into primary care

## Corresponding author:

Kimmie Ouchi, MD

Hawaii Permanente Medical Group

[Kimmie.S.Ouchi@kp.org](mailto:Kimmie.S.Ouchi@kp.org)

## Co-author(s):

David Bell, MD

Lois Chiu, MD

Benjamin Chun, MD

Patricia Cole

Joshua Fouts, BCBA-D

Lois Gregg, MD

Peggy Latare, MD

Burt Moritz, MD

Scott Nishikawa, MD

Richele Thornburg, MS

## LEARNING OBJECTIVES:

1. Redefining Care Access: Introduce innovations to manage face-to-face and virtual care needs
2. Describe ways to leverage non-physician resources to manage workload
3. Learn how information was gathered and practice efficiencies developed

## PROJECT OBJECTIVE/BACKGROUND:

The Stanford WellMD Model identifies three key domains contributing to professional fulfillment, including efficiency of practice. Administrative burden is a leading cause of work-related stress for physicians. Primary care providers, especially, spend much of their day doing data entry, medication refills, form completion, virtual care (phone visits/e-visits) and in-basket management. Increased regulatory burden and widespread use of EMR systems, have changed the practice of medicine; yet, the anatomy of the day has remained the same. This initiative demonstrates how an integrated medical group redesigned primary care to make it the “Best Job”.

## METHODS/APPROACH:

- Leadership Gemba (“go and see”) walks to gather information from the front-line
- Primary care dyad meetings during which physician and nursing leadership share ideas and best practices
- **Development of Practice Efficiencies:**
  - Patient care access needs
  - Call center optimization
  - Template flexibility with virtual care access
  - Robust same-day care staffing model to enhance access for acute care

- Leveraging non-physician resources
- Refine RN role
- Standardize RN on-boarding and professional development
- Further develop and standardize PA model in same-day care
- Optimize and standardize workstreams
- “Make It Simple Team” (MIST)
- Opioid Steering Committee
- EMR optimization
- Form completion process
- Shared resources
- Fuel gauge for clinic staffing and sharing of provider/nursing resources
- Remote in-basket program—virtual provider vacation coverage

## RESULTS:

One question on our annual Quality of Work Life Survey pertains to whether providers feel their “workload is reasonable”. We see increases —starting at 54% in 2010, up to 64% in 2014, and 79% in 2017. In an era of rising administrative burden, it’s encouraging to see an upward trend for perceived reasonability of work-load. We feel “Primary Care Best Job” initiatives have helped our organization reduce work-load stress.

## CONCLUSION:

The Stanford WellMD Model describes efficiency of practice as playing a key role in clinician health and professional fulfillment. We hope our “Primary Care Best Job” initiative continues to reduce work-load stress and increase joy in the practice medicine.

# Burnout and engagement at an academic children's hospital: Drivers and differences

**Corresponding author:**

Susan Hathaway, PhD, MAEd

**Children's Mercy Kansas City**

[sbhathaway@cmh.edu](mailto:sbhathaway@cmh.edu)

**Co-author(s):**

Denise Bratcher, DO

M. Denise Dowd, MD, MPH

Jacqueline Hill, PhD

Mary Ann Queen, MD

Jennifer Bickel, MD

## LEARNING OBJECTIVES:

1. Describe baseline burnout and engagement at an academic children's hospital among physicians, advanced practice providers (APPs), and psychologists.
2. Determine associated drivers of burnout.
3. Compare results between provider groups.

## PROJECT OBJECTIVE/BACKGROUND:

The Center for Professional Well-being, Office of Faculty Development, Graduate Medical Education, Office of the Medical Staff, Organizational Development, and Quality and Safety obtained baseline measurements and identified systemic drivers of burnout and disengagement among clinicians.

## METHODS/APPROACH:

A Provider Wellness/Engagement Survey comprised of three validated tools, two-open ended questions, and demographics was distributed to all faculty providers and APPs during October 2018. The tools included the two-question Maslach Burnout Inventory (MBI) measuring emotional exhaustion and depersonalization; the ten-item Mini-Z Survey measuring burnout and associated drivers; and the three-item Utrecht Work Engagement Score (UWES) measuring engagement. The two open-ended questions asked about sources of stress and general comments. Respondent characteristics included role, academic rank, department/division, location, and years at the institution. No personal identifiers were collected and data were analyzed in aggregate. The survey also provided resources to assist respondents with personal burnout concerns. Descriptive statistics and chi-square analyses were calculated to compare differences between groups, with p-value of <0.05 considered significant.

## CONCLUSION:

Overall rates of burnout were consistent between provider groups in most areas, but large variation across subspecialties of physicians indicates that burnout is a localized problem.

## RESULTS:

The overall survey response was 78% (n=547) with no significant difference in response rates between provider groups. The two-question MBI revealed 25% of all providers experienced symptoms of burnout at least weekly. The Mini-Z Survey revealed 34% of all providers experienced any symptoms of burnout. The UWES found 10% of all providers reporting low engagement (defined as rarely, if ever, feeling energetic, enthusiastic, and/or immersed in work). Burnout was not associated with academic rank, years of employment, or role, but did vary widely and significantly by department and subspecialty. Department burnout rates ranged from 17% to 47%, while divisional burnout rates ranged from 0% to 44%.

High level overview of themes and drivers

Provider groups did not differ in job satisfaction; feeling a great deal of stress; poor or marginal control over workload; chaotic/hectic environment; values aligned with leaders; and teams working efficiently together. Psychologists reported poor/marginal time for documentation (60%) at higher rates and good EHR proficiency at lower rates (74.4%) than physicians (38.9%/91.7%) and APRNs (30.5/96.9%). Physicians/psychologists endorsed more time in the EHR at home than APPs.

# Culture of wellness

## Corresponding author:

Lois Gregg, MD

Hawaii Permanente Medical Group

[Lois.Gregg@kp.org](mailto:Lois.Gregg@kp.org)

## Co-author(s):

David Bell, MD

Lois Chiu, MD

Benjamin Chun, MD

Patricia Cole

Joshua Fouts, BCBA-D

Peggy Latare, MD

Burt Moritz, MD

Scott Nishikawa, MD

Kimmie Ouchi, MD

Richele Thornburg, MS

## LEARNING OBJECTIVES:

1. Provide strategy for building a culture of wellness in a multifaceted and deliberate way
2. Describe the impact on individual and organizational Health and Wellness

## PROJECT OBJECTIVE/BACKGROUND:

A Culture of Wellness is critical for individual fulfillment and organizational success as delineated by the Stanford WellMD Model. Our medical group strives to enrich this culture in a multifaceted and deliberate way... based on a foundation of shared values and guiding vision of being "The Best Place to Work, Deliver, and Receive Care."

## METHODS/APPROACH:

Individual Initiatives:

- **Career Pathways:** Identification of career development opportunities designed to cultivate providers' talents and passions.
- **Physicians Helping Physicians Program:** Developed to assimilate new hires into workplace and culture.
- **Connection:** Semi-annual clinic visits by leadership, annual visits by the board of directors, and clinic chief rounding to increase transparency and exchange information to help providers thrive at work.

- **Communication Skills Workshops:** Developed to optimize provider communication skills.
- **Primary Care Best Job:** 21 initiatives to increase efficiency, decrease administrative tasks, and reduce workload.
- **SELF CARE Incentive:** Bonus for completing personal SELF CARE goals. (Sleep, Exercise, Love & Laughter, Food, Compassion, Awe, Resilience, Engagement)—Model to optimize individual health.

System-wide Initiatives:

- **Professional Development Days:** Dedicated to provider health and wellness. Over 400 participated in over 40 activities from surfing to meditation, June 2018.
- **Family Nights:** In August 2017, nearly 1,200 providers, friends, and family gathered at a water park for fun and relationship-building.
- **Annual Day of Service:** Community service and camaraderie. In January 2019, nearly 1,100 providers, family and friends gathered to plant native species, build trails, and clear fishponds.

## RESULTS:

Quality of Work Life Survey (QWL)	2016	2017	2018	% increase
Medical Group provides an environment that supports health and wellness	89%	95%	97%	+8%
Satisfied with the way I am taking care of my own health	77%	81%	87%	+10%

## CONCLUSION:

Cultivating a Culture of Wellness in our medical group is intentional, valued, and substantiated by the results of our annual QWL Survey. Health and wellness, a living part of our vision/mission, demonstrates that caring for the caregiver is imperative. As we care for ourselves, we strengthen foundations of joy and meaning in our work.

# Decreasing vitamin D levels with changes in habits of entering medical student

**Corresponding author:**

Spencer M. Jackson, BS, BA  
The Brody School of Medicine at East Carolina University  
[jacksons12@students.ecu.edu](mailto:jacksons12@students.ecu.edu)

**Co-author(s):**

William H. McAllister, BS  
Kori L. Brewer, PhD

**LEARNING OBJECTIVES:**

1. Understand adverse effects associated with low vitamin D levels
2. Understand common lifestyle changes associated with medical school
3. Understand how lifestyle changes alter vitamin D levels

**PROJECT OBJECTIVE/BACKGROUND:**

Vitamin D serves many daily functions in human health and normal physiological function. It serves a key role in calcium and phosphorus metabolism, which has led to its association with rickets in children and osteomalacia in adults. Furthermore, recent studies correlate its deficiency with learning difficulty. The main sources of vitamin D come from dietary intake and from the conversion by Ultraviolet B radiation. Studies have shown that rigors of their education affect their habits and health status. These changes include diet and sun exposure which may have an effect on a student's vitamin D level.

**METHODS/APPROACH:**

To investigate how the changes of health habits upon entering medical school can affect vitamin D levels, 16 first year medical students at the Brody School of Medicine responded to surveys documenting Vitamin D consumption, sun exposure, physical activity, time sitting or reclining, hours slept, and BMI. Students performed an initial and final survey to indicate changing in habits. At each time point, blood samples were taken and measured via an ELISA to determine the students' initial and final serum vitamin D levels.

**CONCLUSION:**

Changes in student habits upon entering medical school resulting in decreases in vitamin D can have deleterious effects on student health. Educating students about their health may prevent deleterious health effects in their academic careers. This study has the potential of tracking vitamin D levels longitudinally through medical school to report changes during crucial time points such as USMLE Step 1 study periods and third year clinical rotations.

**RESULTS:**

There was a statistically significant decrease from initial to final vitamin D levels ( $p=0.01$ ), daily vitamin D consumed ( $p=0.033$ ), sun exposure ( $p=0.017$ ), and sun exposure corrected for sunscreen application and percent body exposed ( $p=0.006$ ). When analyzing the correlation of health habits known to alter vitamin D levels, diet and sun exposure, only change in sunlight exposure over the two time points was significantly correlated with vitamin D levels ( $r=0.502$ ;  $p=0.048$ ). The lack of a statistically significant correlation with dietary intake may be a result of the large standard deviations in both initial and final values for vitamin D intake. Other correlations were present between different health habits, but none of the other habits significantly correlated to alterations in vitamin D levels. Data was further analyzed based on student sex and by grouping students into categories from UpToDate of bone health risk based on their vitamin D levels ( $>20$  ng/mL,  $10-20$  ng/mL,  $<10$  ng/mL).

# Encountering negative experience due to gender: A component of burnout in female providers

## Corresponding author:

Crystal Audi, BA

Hennepin Healthcare

[Crystal.Audi@hcmcd.org](mailto:Crystal.Audi@hcmcd.org)

## Co-author(s):

Sara Poplau, BA

Rebecca Freese, MS

William Heegaard, MD, MPH, MBA

Mark Linzer, MD, MACP

Elizabeth Goelz, MD

## INTRODUCTION:

Hennepin Healthcare's Office of Professional Worklife (OPW) has utilized provider burnout data to advocate for system-level change for over five years. Despite limited resources, the OPW measures and monitors burnout across 700 providers (physicians and advanced practice providers), promotes system-wide interventions, and advocates for changes with leadership. Recent interest in gender disparities, gendered discrimination, and female providers' burnout inspired the OPW to consider negative experiences due to gender as a contributor to burnout. Negative gendered experiences could operate at system level, like burnout, and addressing these issues institutionally could result in increased well-being.

## PROJECT OBJECTIVE:

To assess the frequency of negative gender-related experiences and discover if they correlate with self-reported burnout and burnout predictors, like teamwork and leadership values alignment.

## METHODS:

The annual provider wellness survey, the Mini Z, is derived from validated measures and quantifies satisfaction, burnout, and its workplace contributors. The goal of the new gender-related item, based on Pew Research's 2017 STEM Survey, was to create one item with multiple examples of negative experiences due to gender. The 5-point Likert scale item requests self-reported frequency of negative experiences, providing the examples of being denied work opportunities, feeling isolated or treated as if you were not competent, and experiencing repeated, small slights at work. The survey's other nine items include validated 5-point Likert scale questions about work control, chaotic

workplaces, electronic medical record stress, teamwork, and values alignment. Analyses of predictors and correlates of adverse gender-related experiences were performed via logistic regression.

## RESULTS:

In 461 of 679 participating providers (response rate 68%), women reported negative experiences due to gender significantly more often than men ( $p < 0.001$ ). In regression analyses, every one-unit increase in the frequency of negative gender experiences was associated with a 79% increase in odds of experiencing burnout ( $p < 0.001$ ). When assessing burnout predictors for their relationships with gender-related experiences, every one-unit increase in negative experiences was associated with a 55% increase in odds of experiencing poor teamwork ( $p < 0.001$ ) and a 91% increase in odds of experiencing poor leadership values alignment ( $p < 0.001$ ).

## CONCLUSION:

Over one in ten female providers report negative experiences due to gender. These experiences correlated strongly with burnout, poor teamwork, and low leadership values alignment, indicating that negative gendered experiences correspond with overall well-being, team dynamics, and perceptions of leadership. Because negative experiences due to gender may affect well-being, they comprise an appropriate target for institutional change.

# Engaging departments in a large academic medical center to enhance physician well-being

## Corresponding author:

Elizabeth Harry, MD

Brigham and Women's Physician Organization

[EHarry@bwh.harvard.edu](mailto:EHarry@bwh.harvard.edu)

## Co-author(s):

Jessica Dudley, MD

## LEARNING OBJECTIVES:

1. Describe opportunities for engaging departments in evaluating and strategizing around physician burnout and professional fulfillment
2. Describe methods of accountability for departments in a way that promotes engagement and honors confidentiality
3. Describe strategies for synergy across a large academic institution to avoid siloed interventions and redundancy of effort

## PROJECT OBJECTIVE/BACKGROUND:

The aim of this initiative was to align departments across a large academic medical center to decrease burnout and enhance professional fulfillment. Burnout is a well-known phenomenon impacting the healthcare profession and was recently declared a public health crisis<sup>1</sup>. We aimed to collect data to inform systemic and department level strategic priorities to approach this problem.

## METHODS/APPROACH:

**Data collection:** The Stanford Physician Wellness Survey2 captured our rate of burnout and professional fulfillment across departments. We requested a 60% response rate from each department with a financial incentive.

**Data interpretation:** We correlated rates of professional fulfillment and burnout with ten theoretical drivers that informed strategic planning for institutional efforts.

(Figure 1)

**Data dissemination:** Each department chair received department level aggregate data (Figure 2). This gave departments specific opportunities for improvement.

**Department engagement and infrastructure:** A Physicians' Council was modified to include nominated wellness champions from each department. Meetings included sharing best practices and tracking department efforts.

## RESULTS:

Of 2,347 faculty surveyed, 1,502 responded (64%). Institutional burnout rates were 44% and professional fulfillment rate was 50%. Theoretical drivers most correlated with burnout and professional fulfillment were deficiencies in personal well-being (self-compassion, meaningfulness of work, sleep related impairment) and deficiencies in culture (perceive appreciation, values alignment, leadership support, and control over schedule) respectively. This informed our strategic planning (Figure 1).

## CONCLUSION:

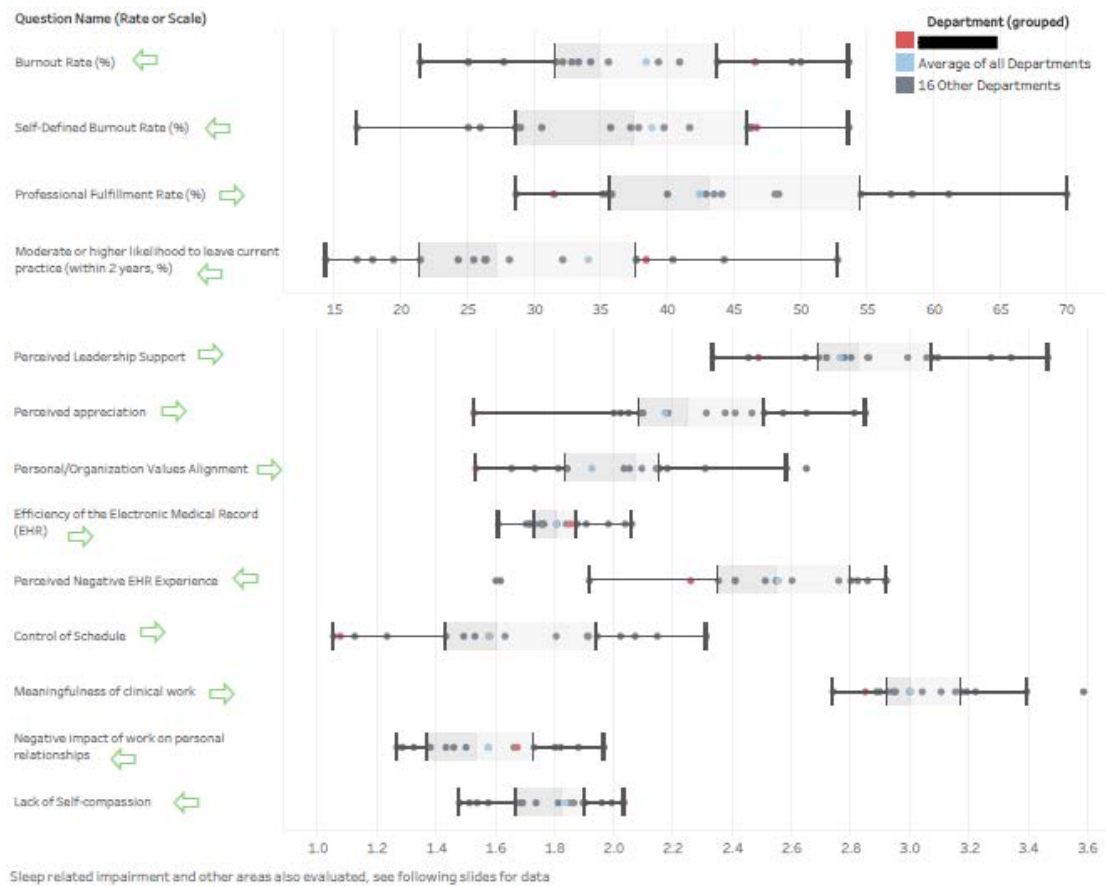
Reliable burnout and professional fulfillment data allows hospital-wide engagement and insight for strategic planning. Correlating theoretical drivers with burnout and professional fulfillment allows departments to target their unique microculture while aligning with the overall institutional strategic framework. An oversight council with data monitoring is key to ongoing momentum and success.

1 Jha AK, et al. A Crisis in Health Care: A Call to Action on Physician Burnout. <https://cdn1.sph.harvard.edu/wpcontent/uploads/sites/21/2019/01/PhysicianBurnoutReport2018FINAL.pdf>

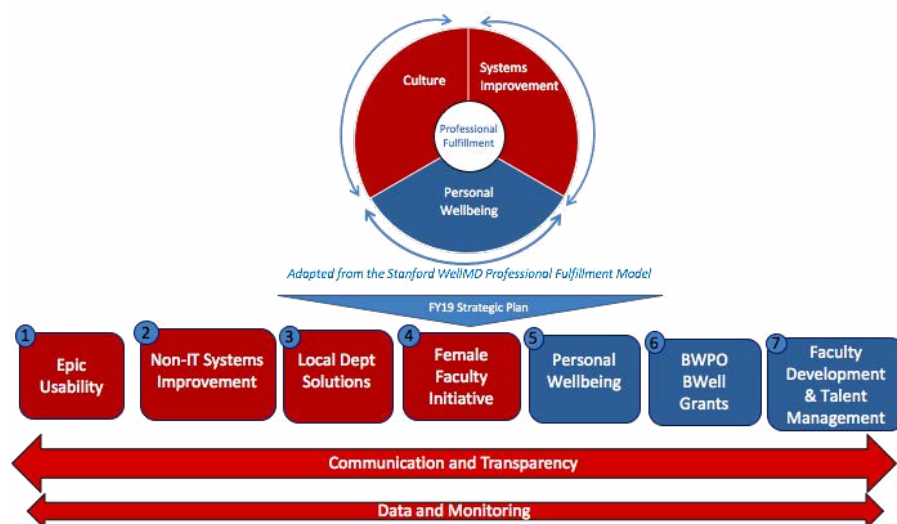
2 Trockel M, Bohman B, Lesure E, et al. A Brief Instrument to Assess Both Burnout and Professional Fulfillment in Physicians: Reliability and Validity, Including Correlation with Self-Reported Medical Errors, in a Sample of Resident and Practicing Physicians. *Acad Psychiatry*. December 2017. doi:10.1007/s40596-017-0849-3.



## FIGURES



**Figure 1.** Distribution of Burnout, Professional Fulfillment rates, and selected theoretical drivers. This report was given to each department with their data in red, the average data across all departments in blue, and the distribution across all departments depicted.



**Figure 2.** Strategic Framework to address burnout and professional fulfillment informed by data from the Stanford Survey and used to guide department and institutional efforts.

# EPIC optimization: An at-elbow intervention to improve physician satisfaction and efficiency with EMR use

## Corresponding author:

Makrina Shanbour, MD

Confluence Health

[Makrina.shanbour@confluencehealth.org](mailto:Makrina.shanbour@confluencehealth.org)

## LEARNING OBJECTIVES:

1. Identify EMR use as one factor that increases symptoms of burnout
2. Use tools within the EMR to assess details of where the physician is struggling
3. Developing a personalized strategy to improve EMR efficiency resulted in decreased at home use of EMR and improved provider efficiency and satisfaction

## PROJECT OBJECTIVE/BACKGROUND:

In 2017, our organization used a Mini-Z burnout survey through the AMA Steps Forward program and identified EMR as the single greatest irritant in physician practice. At the time, EMR trainers were focused on onboarding new physicians. Existing physicians had not had new instruction in EMR use beyond tip sheets, since adoption, 7 years prior.

## METHODS/APPROACH:

In 2017 a group of administrators, physicians and EMR trainers met to work on a strategy to address those providers most struggling with EMR. The Provider Efficiency Profile (PEP) and Signal report in EPIC was used to identify departments struggling the most with EMR efficiency. Those departments were approached and agreed to participate in the EPIC Optimization project. Each provider in the department filled out a survey asking about their goals for the intervention and their greatest frustrations with EMR. The EPIC trainer reviewed the physician's survey and PEP and scheduled 3 hours with the physician. The first hour, the trainer shadowed the physician and team, the next 2 hours they reviewed the PEP and survey with the physician and worked with the physician to make changes that

would impact workflow and address their specific issues and concerns. The trainer left an updated, personalized sheet of the changes made for future reference. If needed, the trainer scheduled a follow-up visit to continue the work.

## RESULTS:

In 2018, 60 providers received at elbow training, ramping up to 12 physicians per month by the end of the year and now open for self-referral. Physicians appreciated the intervention. PEP scores improved across the board for everyone who participated. Repeat Mini-Z survey in May 2019 demonstrated improvement in EMR frustration overall, improvement in perceived time for documentation, but not perceived EMR time outside of work. Overall the providers who participated in EPIC Optimization had lower burnout scores, increased alignment with leaders and higher care team efficiency than the providers who have not participated. As a bonus, this intervention significantly improved morale for the EPIC trainers, as they could see the positive impact they were having on the lives of the physicians.

## CONCLUSION:

EMR has been shown to be a major stressor in physicians' lives and a major cause of burnout. Provider Efficiency Profile (PEP) and Signal in EPIC are helpful tools to identify the physicians struggling the most with the EMR. The tool also helps trainers personalize their intervention to the physician. At-elbow EMR training is much more impactful for physicians than generalized educational information such as tip sheets and classes.

# Good Grief Rounds: An intervention that increases sense of community, meaning and mindfulness in health care providers

## Corresponding author:

Katherine Morrison, MD

University of Colorado School of Medicine

[Katherine.2.morrison@ucdenver.edu](mailto:Katherine.2.morrison@ucdenver.edu)

## Co-author(s):

Rev. William Jensen, MDiv

Nicole Rondinelli, MSN

Erin Nielsen, LCSW

## LEARNING OBJECTIVES:

1. Describe Good Grief Rounds (GGR)
2. Describe GGR QI and study results
3. Explain relationship of GGR to burnout

## PROJECT OBJECTIVE/BACKGROUND:

Good Grief Rounds (GGR) is a one-hour program in which storytelling is used to debrief emotionally difficult cases in health care. One provider, usually an experienced clinician, sets the tone by telling a story revolving around a theme while role-modeling vulnerability and the search for meaning. Afterwards, the group of providers break into small groups and each participant tells their own story. The sessions close with large group discussion. A mindfulness exercise and a humanities reading introduce the theme in the beginning.

A QI project conducted from 2015-2017 collected 281 evaluations from 15 sessions of Good Grief Rounds and revealed that over 90% of participants enjoyed the format, found the sessions valuable/relevant to their work and were useful.

This more recent study of Good Grief Rounds focused on whether participants felt GGR promoted meaning, community and mindfulness, factors shown to decrease burnout in physicians.

## CONCLUSION:

Good Grief Rounds promotes factors which have been shown to decrease burnout in physicians. Previous attendance at GGR increased meaning and sense of community at work. Future research may explore whether GGR facilitation can be taught and reproduced.

## METHODS/APPROACH:

Four GGR Sessions were conducted over a 12-month period in a large academic hospital and participants, consisting of trainees, nurses, mid-levels, physicians, and med students, were asked to complete evaluations after each GGR Session. Participation was not mandatory, and lunch was provided.

## RESULTS:

From the 95 evaluations completed by the participants, 35 (37%) indicated that they had never previously attended Good Grief Rounds, and 22 (23%) had attended 2 or more times. An overwhelming majority (98%) of people found content of GGR to be useful. There were 90% of people who found GGR personally valuable and 88% felt more mindful after attending GGR. Of those attending GGR for the first time compared to those who had attended at least once before, 26% vs. 35% strongly agreed that GGR helped explore meaning in their work and 40% vs. 48% strongly agreed that GGR increased their sense of community at work.

# Health care organizations can support rejuvenating behaviors to reduce burnout

## Corresponding author:

Kristine Olson, MD, MSc

Yale School of Medicine and Yale New Haven Health

[kristine.olson@yale.edu](mailto:kristine.olson@yale.edu)

## LEARNING OBJECTIVES:

1. Understand rejuvenation is integral to maintaining personal resilience.
2. Determine which rejuvenation behaviors have greatest impact on the presence or absence of burnout.
3. Discuss what healthcare organizations can do to support rejuvenation and reduce burnout.

## PROJECT OBJECTIVE/BACKGROUND:

Time to rejuvenate is an important component of personal resilience, which requires time for and access to rejuvenating activities. Previous studies found that physicians are reducing their clinical work-effort or leaving medicine due to lack of work-life integration and burnout. The aim of this study is to understand the proportion of physicians who are affected by lack of work-life integration, and which common rejuvenating activities have the greatest influence on burnout.

## METHODS/APPROACH:

In January of 2019 we completed the annual physician wellness survey, having invited 4171 active attending physicians to participate via an email link. We assessed

the proportion of physicians who did or did not report work-life balance or participation in ten rejuvenating behaviors. We then correlated the presence or absence of these behaviors with burnout. Burnout was assessed by the 10-item instrument in the Professional Fulfillment Index ( $\geq 1.33$ ).

## RESULTS:

Of those invited, 1277 responded (31% response rate). Thirty-two percent of physicians reported they do not maintain work-life balance, which may put them at risk of burnout (OR 5.5). The following ten rejuvenating behaviors are significantly associated with the presence or absence of burnout: [Table]

## CONCLUSION:

Organizations may work to improve work-life integration so physicians may spend time away from work with loved ones and their hobbies. Since a third of physicians report an inability to maintain work-life balance, organizations might consider increasing access to opportunities to connect with loved ones, socialize, sleep, eat healthy, exercise, meditate, and create a culture of giving and receiving gratitude. These rejuvenating activities have potential to reduce burnout, which is believed to improve personal and professional performance. Based on the proportion of physicians not participating in the healthy habits that they advocate for patients, there is ample opportunities to increase role modeling.

## WORK-LIFE INTEGRATION AND REJUVENATING BEHAVIORS:

	% DO NOT	% BO	% NO BO	BO OR	(CI)
Maintain work-life balance	32.5	65.0	(vs. 25.4)	5.5	(4.2-7.1)
Meaningful time with loved ones	15.0	68.7	(vs. 33.1)	4.4	(3.2-6.2)
Time for my hobbies	49.6	54.2	(vs. 22.2)	4.0	(3.2-5.2)
Socialize	33.5	58.9	(vs. 28.0)	3.7	(2.9-4.7)
Gratitude practice	<b>47.6</b>	<b>53.0</b>	<b>(vs. 25.2)</b>	<b>3.3</b>	<b>(2.6-4.3)</b>
Volunteer to help those in need	<b>65.7</b>	<b>47.1</b>	<b>(vs. 21.7)</b>	<b>3.2</b>	<b>(2.4-4.2)</b>
Adequate sleep	<b>38.6</b>	<b>52.8</b>	<b>(vs. 29.2)</b>	<b>2.7</b>	<b>(2.1-3.4)</b>
Maintain healthy diet	<b>23.3</b>	<b>53.8</b>	<b>(vs. 53.8)</b>	<b>2.3</b>	<b>(1.8-3.0)</b>
Exercise regularly	<b>44.0</b>	<b>47.3</b>	<b>(vs. 31.2)</b>	<b>2.0</b>	<b>(1.6-2.5)</b>
Practice mindfulness, meditation	<b>62.0</b>	<b>43.9</b>	<b>(vs. 29.3)</b>	<b>1.9</b>	<b>(1.5-2.4)</b>
Active in faith-based community	<b>72.0</b>	<b>41.9</b>	<b>(vs. 29.1)</b>	<b>1.8</b>	<b>(1.3-2.3)</b>

Chi-square and logistic regression with statistical significance  $p < 0.001$  in bold.

Participation in the activity scored as definitely-mostly yes (0) or definitely-mostly no (1).

10-item Burnout on Professional Fulfillment Index scored  $< 1.33$  no (0) or  $\geq 1.33$  yes (1).

# How do general practitioners act when they are ill? A qualitative study on their health care utilization

## Corresponding author:

Sven Schulz, Dr. med.  
Institute of General Practice and Family Medicine, Jena  
University Hospital  
[sven.schulz@med.uni-jena.de](mailto:sven.schulz@med.uni-jena.de)

## Co-author(s):

Friederike Hecker  
Ulf Sauerbrey, PD Dr. phil.

## LEARNING OBJECTIVES:

1. Learn aspects related to illness behavior of general practitioners
2. Know beneficial and obstructive factors influencing their health care utilization
3. Create hypotheses for further research

## PROJECT OBJECTIVE/BACKGROUND:

International studies revealed several barriers for health care utilization of physicians in case of own illness. This topic is of peculiar relevance for German general practitioners since they often work in single handed practices and their disability may endanger patients care. Studies assessing the health care utilization of general practitioners in Germany are lacking. The aim of our study was to identify beneficial and obstructive factors for health care utilization by general practitioners in case of own illness.

## METHODS/APPROACH:

After developing an interview guideline we conducted and recorded 16 open guided interviews with a convenience sample of general practitioners between December 2014 and March 2015. Interviews took 65 min on average. By means of a questionnaire socio-demographic data of the participants were compiled. Main subject of the interview was the description of own illness experiences from the first symptoms

to health care utilisation and the further progress. The material was transcribed verbatim and analyzed according to a qualitative content analysis approach. By open coding, we developed a code-system with an inductive-deductive method and generated a code-theory-model using the software MaxQDA. In a further step a deepening framework analysis has been conducted focussing on the code "health care utilization".

## RESULTS:

Sociodemographic data will be presented. The developed code system contains 16 thematic main categories related to illness behaviour of general practitioners. Focusing on the code "health care utilization" we found a wide range of associated factors. In addition to barriers for health care utilization we found beneficial factors which may have impact on health care utilization of the physicians.

## CONCLUSION:

Previous studies show a wide range of mostly obstructive factors for health care utilization of physicians. Many of these factors were also found in our study with general practitioners. Additionally beneficial factors were revealed. Hypotheses for further research will be generated. In a long perspective, our findings may help to provide adequate access to the health care system for general practitioners in cases of own illness.

# Implementation of an institutional peer support program for second victims

**Corresponding author:**

Alicia Pilarski, DO  
Medical College of Wisconsin  
[apilarski@mcw.edu](mailto:apilarski@mcw.edu)

**Co-author(s):**

Timothy Klatt, MD  
Jessica Sachs

**LEARNING OBJECTIVES:**

1. Improve awareness of second victim syndrome;
2. Train peer supporters throughout your entire organization;
3. Normalize the emotions associated with adverse outcomes and recognize the need for peer support;
4. Enhance provider wellness by decreasing the risk of second victim status.

**PROJECT OBJECTIVE/BACKGROUND:**

Involvement in adverse events and medical errors are frequent and inevitable occurrences for health care providers. When patients experience adverse outcomes, including progression of disease despite care, known complications of care, or medical error, providers often experience emotional distress. This distress can engender a wide range of negative thoughts and feelings, including self-doubt, anxiety, depression and self-harm. This impacts patient safety because the affected healthcare provider is at risk for being involved in subsequent medical errors and decreased quality of care.

**METHODS/APPROACH:**

Program development began during Summer, 2018. Our Patient Safety Medical Director partnered with our local expert, the leader of the recently established Emergency Medicine Peer Support Team. Susan Scott, PhD, RN, an expert in the field, was recruited to facilitate the initial institutional training session. In all, 52 carefully-selected Peer Support Leaders from all 20 clinical departments were recruited. Chairs nominated faculty physicians recognized as trusted and approachable, willing to lead the program within their department, foster awareness about Second Victim Syndrome, actively support members of their department and recruit additional colleagues to expand the program. In turn, each physician peer supporter then recruited a nurse administrator willing to partner in peer support efforts.

In addition, resident physicians, advanced practice providers, risk management, patient safety specialists, spiritual services and wellness directors were recruited for the initial wave of Peer Supporters.

**RESULTS:**

The training and program kick-off session was held on January 30th, 2019: a 5-hour training session that drew 90% attendance from those invited. The number of attendees rating their knowledge of the second victim syndrome as either developed or advanced rose from 20% to 90%. The number reporting adequate knowledge to support a second victim rose from 19% to 95% and those reporting feeling qualified to teach others rose from 23% to 85%. Our baseline Second Victim Experience Survey Tool (SVEST) data collection is currently underway. In the 26 days since our training session, we received over 30 completed peer intervention reports. In response to the Peer Support Leaders' informational presentations, we continue to receive unsolicited volunteers for the second wave of trained Peer Support Leaders. Each Peer Support Leader is expected to attend a monthly meeting to continue their training, discuss their experiences with educating and supporting their peers and share barriers and successes with the implementation of the program within their departments. An additional training session will be scheduled for a second wave of peer supporters in Summer 2019.

**CONCLUSION:**

In the short time since our institutional Peer Support Program was implemented, immense awareness of the concept of second victim syndrome has been demonstrated. The first wave of peer supporters have educated their colleagues and provided support for those identified as potential second victims.

# Implementation of a resident-led mindfulness course during the surgical clerkship

**Corresponding author:**

Rebecca L Williams-Karnesky, MD, PhD

University of New Mexico, Department of General Surgery

[RLWilliams1@salud.unm.edu](mailto:RLWilliams1@salud.unm.edu)**Co-author(s):**

Elizabeth C. Lawrence, MD

Ming-Li Wang, MD

## LEARNING OBJECTIVES:

1. Discuss how residents can uniquely contribute to wellness education for medical students.
2. Describe how resident involvement in medical student wellness education promotes an institutional culture of wellness.
3. Identify ways to facilitate resident engagement as leaders in wellness promotion.

## INTRODUCTION:

Mindfulness-based interventions have been shown to enhance well-being and may be protective against burnout and depression in medical practitioners. Formal instruction in mindfulness techniques should ideally start early in training so that these skills may be utilized and reinforced during all stages of practice. The surgery clerkship is particularly intense and is thus an ideal forum for introducing mindfulness-based practices to trainees.

## METHODS:

A mindfulness course consisting of three fifty-minute sessions taught by a surgical resident was implemented during didactic time in the surgical clerkship. Over a 6-month period the course was taught to 3 clerkship

blocks (n=46 students). The course discussed burnout and introduced basic mindfulness techniques.

## RESULTS:

After participating in the course, an increased number of students reported an interest in mindfulness (71% to 89%), and 74% of students reported using a mindfulness technique outside of class time. 96% of students agreed that mindfulness was relevant to medical students, and the majority of students agreed that mindfulness could be beneficial to physician well being (94%) and patient care (96%). 98% of student felt that the course should continue to be offered during the clerkship, and 94% of students felt the class should be mandatory.

## CONCLUSION:

Using a resident-lead approach to teaching basic mindfulness techniques is a viable model for promotion of resiliency-building practices in the surgery clerkship. Students appreciated the immediate applicability of the material to the stressful environment of the surgical clerkship, and the credibility of receiving the material from a resident educator.

# Professional dissonance in primary care: Practitioners' perceptions of contributors and solutions to burnout and low professional fulfillment

**Corresponding author:**

Karen Sherritt, MD

Brigham and Women's Hospital

[ksherritt@bwh.harvard.edu](mailto:ksherritt@bwh.harvard.edu)**Co-author(s):**

Sumit D. Agarwal, MD, MPH

Erika Pabo, MD, MBA

Ronen Rozenblum, PhD, MPH

**LEARNING OBJECTIVES:**

1. Identify unique causes of burnout and barriers to professional fulfillment in Primary Care Internal Medicine
2. Use qualitative techniques to elicit the voice of front-line clinicians
3. Identify interventions to decrease burnout and improve professional fulfillment

**PROJECT OBJECTIVE/BACKGROUND:**

Clinician burnout has become a health crisis in our nation. Primary care clinicians have particularly high rates of burnout. Finding effective solutions to burnout requires a deeper understanding of the perceptions and experience of clinicians on the issues than can be provided by quantitative data alone. This qualitative study of primary care clinicians from a large academic institution investigates causes of burnout and barriers to professional fulfillment, in addition to potential solutions to these issues.

**METHODS/APPROACH:**

Qualitative analysis of focus groups comprised of primary care clinicians at a large academic healthcare institution. Using a structured interview guide, participants were asked about their perceptions related to causes of burnout, barriers to professional fulfillment, culture of wellness, efficiency of practice, and personal resilience. Due to other efforts on the EHR at our institution, we specifically did not discuss EHR related issues in these focus groups. Transcripts of focus group audio recordings were coded for themes related to contributors to burnout, barriers to professional fulfillment, and potential solutions.

**CONCLUSION:**

This qualitative study enhances our understanding of the clinician experience related to burnout and professional fulfillment. Potential solutions that are listed in this study come directly from the participants, but additional ideas can be gleaned from the general themes.

**RESULTS:**

Primary care clinicians' perceptions of contributors to burnout and low professional fulfillment centered around six themes—3 external factors and 3 internal manifestations. External factors included quantity of work, content of work, and authority-responsibility mismatch. Internalized factors included feeling demoralized, under-valued, and conflicted. As a broad unifying theme, clinicians conveyed a sense of professional dissonance, i.e. discomfort from working in a system that seems to conflict with their values as clinicians.

Desired solutions clustered around 8 themes: managing the workload, creating a culture of caring, disconnecting from work, setting more realistic expectations, promoting the clinician's voice, supporting professionalism, fostering community and advocating for reforms beyond the institution. Focusing on non-EHR related factors provided the opportunity for deeper discussion on important and heartfelt issues that resonated with participants.

# Promoting physician and physician assistant well-being through the western Carolina medical society's Healthy Healer Program

## Corresponding author:

Miriam Schwarz, MPA

Western Carolina Medical Society

[ceo@mywcms.org](mailto:ceo@mywcms.org)

## Co-author(s):

Kylie Bechdolt

## LEARNING OBJECTIVES:

1. Conference attendees will understand the systemic drivers of burnout that have resulted in rates of burnout among physicians that are significantly higher than in other professions.
2. Attendees will learn the original theory of change developed by WCMS that outlines the components of the program and what difference WCMS hopes to make. Attendees will also learn the final theory of change that highlights the evolution of the program over time.
3. Attendees will understand the core components of creating a provider wellness program housed in a medical society and will be equipped with relevant information to assist them in developing their own program.

## PROJECT OBJECTIVE/BACKGROUND:

Through years of strategic planning interviews, WCMS learned of the growing trend of physician burnout throughout western North Carolina. As an organization that works to support physicians by offering benefits and resources that are meaningful and focused on improving joy in medicine, we communicated with other medical societies across the nation that had successfully implemented a physician wellness program. Through this collaboration, WCMS staff put together a comprehensive program that now includes: bi-annual Healthy Healer retreats with varying topics, discounted prices on therapy, coaching, meal delivery and concierge services, affinity groups to connect physicians of similar demographics, and opportunity to advocate for policy change with NC legislators, state-level organizations, and local c-suite leaders. The overarching objective of the program is to improve physician and physician assistant well-being, reduce feelings of burnout in our medical community, and provide a safe, neutral space for providers to connect and communicate.

## METHODS/APPROACH:

1. Identification of the prevalence of burnout among WNC physicians
2. Collaboration with other medical societies that have a fully functioning wellness program
3. Adapt components and policies of other programs to fit the needs of WNC physicians and WCMS members
4. Launch program with multiple resources and services designed to reduce burnout and promote wellness

5. Consistently evaluate the functionality of the program through conversations with our Healthy Healer Steering Committee and via survey data
6. Add, remove, and adapt program services as needed to accommodate the changing needs and requests of our medical community

## RESULTS:

Here is the most recent HHP data from our annual survey:

- Approximately 40% of WCMS members have utilized one or more component(s) of the HHP
- 62% of respondents indicated that they are "likely or very likely" to seek support if they are experiencing burnout
- 73% of respondents indicated that is "important" or "extremely important" for WCMS to continue offering resources and services through the Healthy Healer program.

Respondents were also asked an open-ended question about why they feel the HHP is either important or unimportant. Some of the responses included:

- We need to take care of our own
- Publicity removal or reduction of stigma associated with burnout are important
- Need to provide the opportunity
- Important to continue to address burnout as we break down barriers and stigmas for physicians to reach out for help

- Addressing provider burnout lead to improved patient experience and care
- This is not an issue that will “go away” so knowing support and help is near is critical
- There are few agencies in the area to address this problem
- I think local medical societies are one of the best forums to offer such services, much more so than some state organization.

- It feels like a safe place to connect with peers and be human.
- Fosters collaboration

Lastly, on our latest Healthy Healer retreat survey, WCMS asked: What else can WCMS do to reduce burnout, improve wellness, and support physician and physician assistant families? Several members indicated the desire/need for WCMS to continue to engage c-suite and administrators in the efforts of the program.

## CONCLUSION:

Although program usage is currently at 40% among our membership, it's clear that providers in the community feel it's important for the program to exist and that they see value in the mission of the HHP. WCMS aims to increase uptake of the various program components while also continuing to evolve to program so that it works to address needed changes in the health system to reduce burnout. The HHP will continue to offer resources for personal wellness and resiliency, but will also be more inclusive of c-suite and other administrators. WCMS understands the need to empower physicians to become change agents within their respective organizations and our responsibility to foster that empowerment through the HHP. WCMS also understands the importance in bringing ALL voices to the table to move the needle in workplace culture. The HHP will continue to focus on these important issues as we move forward.

# Results of a physician efficiency learning lab at Mayo Clinic

**Corresponding author:**

Lisa R. Hardesty, PhD

**Mayo Clinic Health System**

[Hardesty.lisa@mayo.edu](mailto:Hardesty.lisa@mayo.edu)

**Co-author(s):**

Keith Oken, MD

Suzanne Caubet, MS

## LEARNING OBJECTIVES:

1. Increase awareness of evidence-based interventions that target physician burnout
2. Build techniques to enhance agility and resiliency, energy and time management, and technology management
3. Focus on providing resources to physicians during challenging times

## PROJECT OBJECTIVE/BACKGROUND:

The goals of the program were to enhance awareness of stressors and pressures, leverage evidence-based practices to improve efficiency, and increase awareness of organizational resources.

## METHODS/APPROACH:

Forty physicians (25 from Mayo Clinic Florida and 15 from Mayo Clinic Health System; 17 Medical Specialty, 8 Surgical Specialty and 14 Primary Care) participated in a 4-hour intervention designed to enhance efficiency and resiliency. An optional 1:1 coaching session or small group coaching session was offered following the program. Physicians completed pre-program assessments designed to describe important aspects of practice, and to assess empowerment at work, perceived stress, sense of burnout and overall happiness.

## RESULTS:

Results indicated that the majority of physicians are spending 11-15 hours per day at work and 5-10 hours per week at home in clinical, academic or administrative work. Ninety-five percent of the physicians felt that clerical burden was compromising the quality of their work. Burnout and feeling more callous was common across all medical specialties (83% medical, 88% surgical, 93% primary care) yet the majority of respondents found their work still meaningful (94% medical, 88% surgical, 92% primary care). As a result of the training, physicians reported making changes in email management and practice habits. They increased their use of resilience tools and held crucial conversations with others. The importance of networking with other physicians from varied specialties was deemed the most valuable aspect of training. One-on-one and small group coaching was deemed to be helpful by all 23/40 participants who participated and resulted in the creation of action plans beyond the 4-hour session.

## CONCLUSION:

This training was initiated as an attempt at increasing skills and resources to assist physicians in navigating the complexities of the current practice environment, its accelerated pace, clerical burden and propensity to elicit physician burnout. Future research should center on the assessment of program modifications as it is introduced to a broader range of practitioners.

# Roundtable discussions as a means for organizations to evaluate and develop strategies to address burnout among hematology and oncology fellows

## Corresponding author:

Sherise C. Rogers, MD, MPH

The Ohio State University Medical Center

[Sherise.rogers@osumc.edu](mailto:Sherise.rogers@osumc.edu)

## Co-author(s):

Joseph Maakaron, MD

Jarred Burkart, MD

Regan Memmott, MD, PhD

Janet Dettorre, BA

Bob Towner-Larsen, MA, PhD

## LEARNING OBJECTIVES:

1. Organize unbiased roundtable discussions to illicit feedback from organizational members
2. Identify individual and organizational factors that contribute to burnout through group discussions
3. Increase camaraderie amongst members through shared experiences

## BACKGROUND:

Burnout is a national problem among oncologists in the United States. Trainees are particularly vulnerable to this occupational hazard. Although many healthcare organizations and academic communities have recognized the personal, patient and economic burdens of burnout, many still have difficulty in developing successful strategies to improve wellness in their specific organizations.

## PURPOSE:

1. To identify factors that increase burnout among hematology and oncology fellows through the use of small group roundtable discussions.
2. To increase camaraderie and peer support among trainees through discussions about shared experiences.

## METHODS:

Hematology & Oncology fellows from a major academic center were asked to participate in roundtable discussions by indicating a preferred date out of 3 sessions. All attempts were made to accommodate their schedules and balance the total number and demographics within each group. We utilized the skills of our ombudsman as an unbiased mediator to lead each discussion. Questions pertaining to workload, feelings of satisfaction support from the program, and

short- and long-term suggestions for improvement were posed and the mediator wrote down the unidentified responses. After each session, all notes were typed and remained de-identified. They were then analyzed qualitatively to isolate organizational and individual causative factors of burnout. Feedback was also obtained from the fellows through the form of a short post-survey.

## RESULTS:

Twenty-two of 25 Hematology & Oncology fellows participated in one of three scheduled roundtable discussions. Each group included 7 fellows. Women were the majority that participated, as reflected by the demographics of our fellowship program. At least one member of each class year was present in each small group. 14 fellows completed the post-survey. 64% responded definitely yes (highest score) regarding that this activity strengthened camaraderie. Most were also interested in self-development education: 47%, 32%, and 21% regarding work-life integration, resiliency, and self-care respectively. Our qualitative analysis isolated several organizational items for improvement to present to our leadership as well as several individual factors for personal development.

## IMPLICATIONS:

Roundtable discussions can be used as a mechanism to evaluate burnout and isolate individual and organizational factors that worsen the problem. Small group discussions can increase camaraderie and decrease isolation by highlighting that trainees struggle with similar issues. This information can be used to develop community specific strategies to improve physician wellness, but also serve as an independent exercise to decrease feelings of work-related stress.

# SELF CARE MODEL

## Corresponding author:

Benjamin Chun, MD

Hawaii Permanente Medical Group

[Peggy.Latare@kp.org](mailto:Peggy.Latare@kp.org)

## Co-author(s):

David Bell, MD

Lois Chiu, MD

Patricia Cole

Joshua Fouts, BCBA-D

Lois Gregg, MD

Peggy Latare, MD

Burt Moritz, MD

Scott Nishikawa, MD

Kimmie Ouchi, MD

Richele Thornburg, MS

## LEARNING OBJECTIVE:

1. Introduction of our evidence-based SELF CARE model
2. Learn how intentional incorporation of SELF CARE initiatives improves both the wellness culture of an organization and individual wellness

## PROJECT OBJECTIVE/BACKGROUND:

The Stanford WellMD Model identifies three key domains contributing to professional fulfillment, with Personal Resilience and Culture of Wellness being two out of the three. Our medical group recognizes the foundational importance of provider wellness to personal and organizational success and promotes a wellness culture through widespread incorporation of the SELF CARE Model.

## METHODS/APPROACH:

- Development of evidence-based "CARE" acronym, used with "SELF" model, developed by one of our partnering medical groups.
- SELF CARE Model presentation to organizational leadership to promote organizational endorsement.
- SELF CARE promotion through Professional Development Days and other events.
- SELF CARE incorporation into publications, marketing, website, recruitment, grand rounds, mentoring programs, and regional incentive goals.
- Measure results of 2017 SELF CARE initiatives, through analysis of Quality of Work Life Survey

(QWL) and participation rates in SELF CARE Regional Incentive Goals.

## RESULTS:

Our medical group issues an annual Quality of Work Life Survey (QWL), which includes two questions pertaining to health and wellness:

- Medical group provides an environment that supports health and wellness
- Satisfied with the way I am currently taking care of my own health

Survey results between 2016 and 2018 validated the goals of the 2017-2018 SELF CARE initiative, showing a 8% positive response to question #1, from 89% (2016) to 97% (2018), and a 10% increase in question #2, from 77% (2016) to 87% (2018). We received 95% participation in our regional SELF CARE goal, where providers watched a SELF CARE video and chose two measures to practice for three months. The goal encouraged providers to engage in their own SELF CARE.

## CONCLUSION:

We found by creating a comprehensive SELF CARE model and prioritizing its intentional incorporation into our organization, we achieved increased personal wellness for our providers and improved wellness for our organization.

# System-level interventions to improve physician well-being: Results from a health system-wide faculty well-being survey

**Corresponding author:**

Jonathan Ripp, MD, MPH

Icahn School of Medicine at Mount Sinai

[Jonathan.Ripp@mountsinai.org](mailto:Jonathan.Ripp@mountsinai.org)**Co-author(s):**

Lauren Peccoraro, MD, MPH

## LEARNING OBJECTIVES:

1. Consider system-level interventions to promote well-being as solicited from a large faculty cohort survey
2. Identify ways to translate survey data into a proposal for a physician well-being program
3. Identify ways to translate survey data into a proposal for a physician well-being program

## PROJECT OBJECTIVE/BACKGROUND:

Job burnout is common in physicians and has been correlated with medical errors, depression and decreased productivity. Interventions targeting system-level drivers of burnout seem more likely to have an impact on promoting well-being compared with those focused on the individual practitioner. As part of the newly formed physician and trainee well-being office at a large urban health center, we conducted a health system-wide faculty survey to establish baseline well-being metrics and characterize which system-level interventions respondents believed would most improve their well-being.

## METHODS/APPROACH:

Between November 2018 and January 2019, we administered a survey intended to reach all faculty within our health system through an online electronic platform. The survey included 2 validated measures of well-being, the Mayo Well-Being Index and the 2-item Maslach Burnout Inventory. Depressive symptoms were measured using the PRIME-MD instrument. A number of non-validated questions were also included to gather information about which interventions respondents

believed would most improve their well-being. Descriptive statistical analysis was performed using SAS software.

## RESULTS:

At the time of survey administration, 4156 faculty were eligible for participation. Of the 4156, 1870 (45%) completed surveys. Forty-eight percent (753/1564) of our respondents were female; 83% (1311/1571) were full-time employees. Thirty-four percent (600/1780) of respondents scored positively for burnout and 22% (389/1771) met criteria for depression symptoms. Fifty-two percent (732/1401) agreed that the electronic health record added to the frustration of their day. Of those who indicated that they work on the EHR outside of the work day, 42% (585/1396) spent more than 1 hour on average. The top 3 system-level interventions respondents believed would most improve their well-being included enhanced faculty appreciation efforts (42%, 790/1870), improved mentorship for promotion/career development (35%, 656/1870) and better use of team-based care to task shift clinical work. (31%, 579/1870)

## CONCLUSION:

Faculty respondents within the health system had a lower prevalence of burnout compared with what has been reported in national cohorts. These faculty identified a number of interventions they believed would most improve their well-being. Optimization of the electronic health record and better utilization of team-based work flows were 2 areas identified; however, such efforts often take considerable time to drive change. Increasing efforts to appreciate and recognize faculty and improve mentorship may be what faculty most want and could be more feasible to achieve in the short term with potentially fewer resources.

# The impact of a physician wellness committee at a children's hospital

## Corresponding author:

Gogi Kumar, MD

Dayton Children's Hospital

[kumarg@childrensdayton.org](mailto:kumarg@childrensdayton.org)

## Co-author(s):

Vickie Peoples, RN, MBA

Adam Mezooff, MD

## LEARNING OBJECTIVES:

1. Identify the percentage of physicians exhibiting burn out
2. Evaluate the effect of interventions targeted at improving physician wellness
3. Identify the most important priorities for physician wellness

## BACKGROUND:

Physician wellness is essential for the optimal functioning of a health care system. Concerned about the national trends of increasing physician burnout we evaluated the extent of burn out at Dayton Children's Hospital in 2018, then initiated a physician wellness committee. The committee implemented multiple wellness initiatives with the aim of promoting physician wellness.

## METHODOLOGY:

We conducted 2 surveys of all employed physicians in February of 2018 and 2019, based on the Maslach Burnout inventory.

After the initial results, we formed a physician wellness committee and initiated a number of interventions to address some of the issues including:

- Providing information about mental health resources in the community

- Starting meditation classes
- Creating a frequently asked question document for all the physicians delineating the resources for enhancing participation in research, education, quality improvement, safety etc
- Creating a peer support program
- Organizing multiple socials celebrating festivals belonging to different religions.
- Conducting town hall meetings to discuss mindfulness, the burden of electronic medical record and system issues affecting physician wellness.

## RESULTS:

In 2018, 86 physicians responded while in 2019, 94 physicians responded to the survey response.

Below is a summary of responses from the first 6 questions.

Question	2018	2019
Feeling burn out a few times per month or more	43%	36%
Being callous towards work a few times per month or more	15%	17%
Felt disengagement and a loss of interest in their work few times per month or more	18%	14%
Felt a lack of control over their work schedule few times per month or more	49%	38%
Felt rewarded few times per month or more	66%	69%
Sense of professional fulfillment on a scale of 0-10 was rated as 7 or more	68%	82%

Of note, in the 2019 survey, 80% of respondents knew about the physician wellness initiatives. The results indicated an overall positive trend towards physician wellness. The top 2 most important priorities for wellness were work life balance and autonomy at work in both the surveys while the top 3 interventions desired by physicians included increasing physician role in determining workflow, increasing physician input in decisions of strategic importance and decreasing the burden of electronic medical record.

## CONCLUSION:

Physician burnout remains a major problem. Specifically, designed physician wellness initiatives can positively impact physician burn out.

# Using a request for proposals (RFP) process to drive the development of outcomes-driven physician well-being improvement projects

**Corresponding author:**

Miriam Stewart, MD

Children's Hospital of Philadelphia

[stewartm2@email.chop.edu](mailto:stewartm2@email.chop.edu)

**Co-author(s):**

Princy Thottathil, MD

Nafis Brown

## LEARNING OBJECTIVES:

1. Apply the Plan-Do-Study-Act quality improvement model to physician well-being
2. Engage local-level champions in the process of identifying drivers of burnout and designing interventions to address them
3. Support physician well-being improvement projects to be data-informed and outcomes-driven

## PROJECT OBJECTIVE/BACKGROUND:

Local culture and work processes at the level of individual divisions or work units can drive physician burnout. A physician well-being RFP process offers structure, support, and accountability for change agents to design outcomes-driven physician well-being improvement projects targeting local drivers of burnout.

## METHODS/APPROACH:

An RFP was announced to our institution's well-being leads for outcomes-driven projects to improve a driver of physician well-being. The well-being leads were provided with a project roadmap based on the Plan-Do-Study-Act (PDSA) model which included guidance on completing a needs assessment and

engaging stakeholders. The project proposals were scored using a rubric that assessed potential for benefit, generalizability, innovative approach, and sustainability. A quality improvement advisor and data analyst were hired to support projects. The Wong-Baker FACES scale was adapted for use as an assessment tool for physician well-being projects.

## RESULTS:

Ten proposals were submitted and five proposals were selected for support. Two projects addressed the domain of Culture of Wellness and three projects addressed Efficiency of Practice.

## CONCLUSION:

The RFP model is an effective strategy for stimulating local-level physician well-being improvement work and the PDSA quality improvement model can be applied to improve drivers of physician burnout. Post-intervention data is forthcoming to determine the impact of these projects. Further research is needed to validate the Wong-Baker FACES scale as a measure of the physician experience.

# Where we are and how we feel: Developing a tool to measure medical students' perceptions of learning environment and their sense of well-being

## Corresponding author:

Eva Waiteo, MD

Wayne State University School of Medicine

[ewaiteo@med.wayne.edu](mailto:ewaiteo@med.wayne.edu)

## Co-author(s):

R. Brent Stansfield, PhD

Jason Booza, PhD

Hannah Kopinsky

Jody Chou

Margit Chadwell, MD

Tsveti Markova, MD

## LEARNING OBJECTIVES:

1. Introduce the newly developed Medical Student Check-In Survey (MSCIS) alongside the well-established Medical Student Learning Environment Survey (MSLES).
2. Discuss the process of creating a tool to measure the relationship of medical students' sense of well-being to perceptions of medical school learning environment.
3. Explore ways to make informed institutional changes which positively impact students' well-being and inspire joy in medicine.

## PROJECT BACKGROUND:

Studies of North American medical students show a higher prevalence of anxiety and depression than age-matched peers.<sup>1</sup> Burnout impacts clinical practice, including reduced empathy, patient satisfaction, and productivity.<sup>2,3</sup> These studies demonstrate the need for greater understanding of the influences on physician well-being from the start of medical training. We developed a Medical Student Check-in Survey (MSCIS) alongside responses to the Medical Student Learning Environment Survey (MSLES) at the largest single-campus allopathic medical school in the U.S to evaluate influences of perceptions of learning environment on well-being.

## METHODS/APPROACH:

Medical students and faculty reviewed available resources to measure well-being components and perceptions of learning environment. They collaboratively worked on the Medical Student Check-In Survey (MSCIS), a novel form derived from the published

and validated Resident Wellness Scale (RWS).<sup>4</sup> The MSCIS is based on the group's review of the literature including the RWS and discussion of the nature of wellness in medical students. It is designed to measure frequencies of behaviors and thoughts indicative of student well-being. The Medical Student Learning Environment Survey (MSLES) is a well-used instrument measuring medical students' perceptions of their learning environment.<sup>5</sup> The MSLES and the MSCIS were sent together to the entire medical school student body of over 1,100 students across years one through four.

## RESULTS:

Collaborative development between medical students and faculty can lead to novel ways to measure components of medical student well-being. Analysis of the factor structure of the MSLES and MSCIS may reveal constructs related to student learning environment perception and well-being in medical school.

## CONCLUSION:

Students' sense of well-being is influenced by multiple factors. Understanding the impact of students' perceptions of learning environment and level of training on perceptions of well-being can guide effective institutional changes that can cultivate joy in learning and in medicine.

- 1 Dyrbye LN, Thomas MR, Shanafelt TD. Systematic review of depression, anxiety, and other indicators of psychological distress among U.S. and Canadian medical students. *Acad Med.* 2006;81(4):354-373.
- 2 Thomas MR, Dyrbye LN, Huntington JL, et al. How do distress and well-being relate to medical student empathy? A multicenter study. *J Gen Intern Med.* 2007;22:177-183.
- 3 West CP, Dyrbye LN, Shanafelt TD. Physician burnout: contributors, consequences and solutions. *J Intern Med.* 2018;Epub.
- 4 Stansfield RB, Giang D, Markova T. Development of the Resident Wellness Scale for measuring resident wellness. *J Patient Cent Res Rev.* 2019;6:17-27.
- 5 Dunham et al. Medical Student Perceptions of the Learning Environment in Medical School Change as Students Transition to Clinical Training in Undergraduate Medical Education. *Teach Learn Med.* 2017 Oct-Dec;29(4):383-391.

# Who should be recognized and how? An assessment of recognition deficits in a large academic department

## Corresponding author:

Timothy D. Riley, MD

The Pennsylvania State University

[Triley1@pennstatehealth.psu.edu](mailto:Triley1@pennstatehealth.psu.edu)

## Co-author(s):

Julie A. Radico, PsyD

Jessica A. Parascando, MPH

Tamara K. Oser, MD

## LEARNING OBJECTIVES:

1. Describe the evidence regarding impact of recognition on burnout and retention in academic medicine
2. Explore the results of a cross-sectional survey assessing the need for and preferred method of recognition in a large academic department
3. Discuss approaches to optimizing recognition and appreciation to facilitate engagement and retention of healthcare providers

## PROJECT OBJECTIVE/BACKGROUND:

Burnout is associated with decreasing patient care time or changing careers. The literature demonstrates that increased work-home conflicts worsen burnout. Insufficient recognition increases risk of faculty leaving an academic medical center. Recognition of exceptional efforts through tangible goods and services is a nascent concept to reduce work-home conflict and enhance recognition. A survey was administered to identify gaps in recognition, and to assess ways to improve recognition in the Department of Family & Community Medicine at Penn State University (PSU).

## METHODS/APPROACH:

Participants included physicians, advanced practice providers and residents at the PSU Hershey and University Park campuses (n = 157). Potential participants were emailed a link to a REDCap survey which contained Likert-scale questions related to work

appreciation and potential ways to be recognized at work. Also included were open-ended, free-text questions to find target areas for recognition and alleviation of conflict related to exceptional work effort.

## RESULTS:

Participants (n = 53, response rate 34%) were 44.2% male (n = 23) and 59.6% faculty (n = 31). 26.9% stated that there are things that they are doing regularly at work that are not being recognized, and 19.2% stated that they were seriously considering leaving PSU because they did not feel appreciated. Specific duties that have not been recognized include education (n = 9) and clinic (n = 12). When asked about how they would prefer to be recognized, highest rankings (1 = "definitely not", 5 = "definitely") were for a monetary reward (4.31), followed by an award (4.04) and private recognition (4.02). Qualitative and statistical analysis is ongoing.

Project Description	SMART Aim
Improving the culture of civility and collaboration during Cardiac Center morning sign-out rounds	Improve provider experience during sign-out from 56% to 80% of participants that select 4 or lower on the FACES scale
Creating physician interest groups (PIGs) in the divisions of General Pediatrics and Neurology with the goal of increasing connectedness	Sustain consistent attendance at PIG group meetings through 12 months
Nephrology ambulatory clinic workflow redesign	Reduce time spent on Non-Value Added (NVA) tasks by 25% and number of visits that extend > 30 minutes past their scheduled visit time by 30%. Increase team member scores on the FACES scale.
Improving triage of patient calls in Endocrinology	Decrease the number of EPIC InBasket messages physicians receive by 20%
Pairing inefficient and efficient EPIC users for observation sessions with the goal of improving efficiency for low performers	Decrease work after work in EPIC by 10%. Increase charts closed in 10 days by 10%.

## CONCLUSION:

Respondents reported a lack of recognition, particularly related to clinic and education duties. The results will identify qualifying activities for recognition, and will guide the creation of a transparent system of recognition and reward.

# Workshops

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# Activating a health care system: Five key steps to successful organizational change and improved physician well-being

## Corresponding author:

Samantha Meltzer-Brody, MD, MPH  
**UNC Well-Being Program, University of North Carolina at Chapel Hill School of Medicine**  
[samantha\\_meltzer-brody@med.unc.edu](mailto:samantha_meltzer-brody@med.unc.edu)

## Co-author(s):

Joanne M. Jordan, MD, MPH  
 Lauren Westervelt, MPH  
 Allison Schad, LCSWA  
 Matthew Ewend, MD  
 Wesley Burks, MD

## LEARNING OBJECTIVES:

1. List five steps for driving organizational change that improve physician health
2. Describe the importance of leveraging partnerships to achieve systemic change across varied stakeholders in an academic medical center and a state-wide healthcare system
3. Demonstrate skills for influencing change in general, and in physician well-being, in particular

## PROJECT OBJECTIVE AND BACKGROUND:

In this skills-based workshop, participants will learn about the novel approach taken by leaders at a public Academic Medical Center and Health Care System (HCS), The University of North Carolina, to build an effective coalition that intervenes on the drivers of physician burnout and improves well-being through a novel systemic initiative. Drawing lessons from the success of this initiative, and working through case studies, learners will receive guidance on how to activate a School of Medicine and HCS to engage in wellness-oriented strategic partnerships at their own institutions by making use of five key steps. This program has been evaluated using system-wide metrics of well-being and care-redesign efforts and shows that our well-being scores are better than national averages across all groups.

## SESSION PLAN AND TIMELINE (60-90 MINUTES—CAN BE ADJUSTED):

1. **MAKE THE CASE:** Making the case that the well-being of physicians is vital to the mission of the organization is the critical first imperative.
2. **ENGAGE LEADERSHIP:** Engaging leadership—we will touch on specific strategies for engaging leaders across the institution to invest in wide-scale measurement of stress levels
3. **CREATE A CULTURE OF INNOVATION:** Discuss how we began pilots and documented success of programs that improved well-being by creating a coalition of interested and committed stakeholders. We will present several specific programs along with a “how-to” on developing and piloting these initiatives.

4. **EXPAND FUNDING INVESTMENT TO TACKLE DRIVERS OF BURNOUT:** Bring important stakeholders to the table to share in investment in the efficiency of practice and care re-design. This allowed for expansion of institutional leadership's financial investment to invest in human factors engineers, which led to vital care redesign.
5. **COORDINATE AND DISSEMINATE RESOURCES TO SYNERGIZE AND OPTIMIZE EFFORTS:** The coordination and sharing of resources across the entire health care system synergized efforts and increased program impact.

## SESSION DESCRIPTION:

- Begin with an overall assessment of workshop participants' background and institutional landscape of respective organizations using audience response polling via app-based smart phone tool.
- Skills-based session on influencing and organizational change principles – we will discuss the importance of understanding the culture, values, people, and behaviors that must be influenced to make organizational change.
- Small Group break-out sessions focused on specific case studies and the practice of skills necessary to create organizational change within academic medicine.
- Sharing by each small group of lessons learned with the entire workshop to enhance learning and increase effectiveness.

# Championing practice innovation through physician empowerment

## Corresponding author:

Susan J. Rehm, MD

**Cleveland Clinic**

[rehms@ccf.org](mailto:rehms@ccf.org)

## Co-author(s):

Katherine Bulava, MA

Bradford Borden, MD

Herbert Wiedemann, MD, MBA

## LEARNING OBJECTIVES:

1. Learn to use a project management framework to empower innovative solutions
2. Examine applications of this model
3. Generate Champion Framework project concepts for your organization

## PROJECT OBJECTIVE/BACKGROUND

Each specialty and individual practice has its own set of challenges and nuances. We realized that to spur and support innovation, solutions should be generated locally. Our first opportunity came from a request by a chair who appointed an institute "resilience" champion and asked PIPFO to work with her. Through this partnership, PIPFO developed a project management framework to drive local solutions from the ground up. That support has now grown to eight institutes and we continue to recruit. PIPFO guides Champion Teams through the identification and implementation of solutions using the professional fulfillment model to guide project focus areas: culture, efficacy of practice and personal well-being. We also provide expert consulting support to individual Champions; opening doors, working through challenges and helping to develop concepts. While local solutions reflect the uniqueness of each practice, the process of empowering physicians to drive change is consistent and gaining momentum.

## SESSION DESCRIPTION:

This session provides a framework for using a project management model to empower physicians to lead practice innovation and enact solutions that benefit their well-being, improve culture and remove barriers to practice. Learn how a process to drive local change can have system-wide impact.

## SUCCESSFUL AND ONGOING CHAMPION PROJECTS INCLUDE:

- Neurology Women's Leadership Initiative
- Emergency Services - multi-location surge cross-coverage project
- Pathology and Lab Medicine - Secretarial pool revamp
- Endocrinology and Metabolism - MyChart Best Practice Initiative
- Pediatrics - Town Halls
- Imaging - Social Connectivity
- Anesthesia & Neurology - CPR training (Civility, Professionalism, Resilience)

## SESSION PLAN AND TIMELINE:

1. Introduce Champion model (10 minutes)
2. Share examples of successful Champion projects (20 minutes)
3. Interactive demo: project discovery and implementation (20 minutes)
4. Discussion: how local success drives system change (10 minutes)

# Creating a scalable wellness foundation in your organization

**Corresponding author:**

Ellie Rajceвич, MPA

**MultiCare Health System**[Eirajceвич@multicare.org](mailto:Eirajceвич@multicare.org)**Co-author(s):**

Mark Mariani, MD, MBA

**LEARNING OBJECTIVES:**

1. Create a plan for growth and expansion of Provider Wellness activity in your organization
2. Complete a well-being needs assessment for your organization
3. Learn how to develop a strategic plan to support provider wellness

**PROJECT OBJECTIVE/BACKGROUND:**

The mission of the Provider Wellness Program at our organization is to support our providers to thrive in their professional lives and to create a culture where our providers can achieve fulfillment. A primary outcome metric is saved time. Through our electronic health record customization and personalization and workflow redesign, individual providers have seen the following results after working with the Provider Wellness Program:

- Saved 30 minutes in Notes & Letters section of EHR per work day + 90-minute reduction in work time on each weekend day (total savings of 5 hours per week)
- Saved 2 hours on each day off (total savings of 6 hours per week)

Through these substantial, tangible results, our program has demonstrated the ability to help our physicians achieve results, enabling the expansion of our program and services. The expansion of our program and services enables a focus shift from individuals to practices. In this session, we will share our experiences and facilitate an exercise where attendees can create plans for program initiation, growth and spread.

**SESSION PLAN AND TIMELINE:**

This would be an ideal hour-long session, although a lesser timeframe could be accommodated. This session would have two break-out sessions when attendees can start to develop a road map for their organization depending on where they are in the development of their Provider Wellness work.

**SESSION DESCRIPTION:**

In this session, presenters will share the essential foundational elements that have been embedded within our Provider Wellness Program and demonstrated our organizational worth. The session will contain not only our story but also essential data to support each strategy listed below. We will facilitate tabletop exercises for leaders to engage in their own strategy development that will be relevant to programs that are still in development and that are very well established.

## ESSENTIAL ELEMENTS TO CREATING A SCALABLE, SUSTAINABLE, WELLNESS FOUNDATION:

1. Based on need, determine the staffing complement and leadership structure to advance your Wellness Program.
  - a. Our team is comprised of:
    - i. Practice Optimization Consultants (workflow and Lean experts)
    - ii. Epic Educators (physician & advanced practice provider-focused Epic trainers)
    - iii. Contracted services from a licensed mental health counselor
    - iv. Program Director oversees Practice Optimization Consultant-Epic Educator teams across different geographic regions, which spans across a considerable area in the Pacific Northwest
    - v. Physician executive leadership
    - vi. Steering team
2. Breakout session focused on idea sharing: What programming has been important to your program? At your organization, what programming are you interested in developing?
3. Measure burnout, well-being or fulfillment using a survey that your organization can commit to using to show progress over time.
  - a. We use the PWBI, and our results show higher distress than the national norm.
4. Create a Provider Wellness Advisory Group.
  - a. Engaged physicians and advanced practice providers shape our work and share diverse perspectives.
5. Engage in resilience building activities.
  - a. CME events focused on mindfulness, meditation and self-care
  - b. Food & Fellowship events
  - c. Counseling & tele-counseling services
6. Identify and support local and organizational wellness champions.
7. Measure/demonstrate success to show results and make a case for continued expansion of services.
8. Creating your strategy and road map
9. Breakout: Strategy outline exercise with handouts
10. Takeaways and conclusion

# Do gendered experiences of physician burnout require tailored interventions for female physicians and/or system change?

## Corresponding author:

Yalda Jabbarpour

The Robert Graham Center

[yjabbarpour@aafp.org](mailto:yjabbarpour@aafp.org)

## Co-author(s):

Megan Coffman

Aimee Eden

## LEARNING OBJECTIVES:

1. Identify unique factors that contribute to burnout in female physicians
2. Catalog existing individual, organizational, and policy level interventions that are aimed at preventing burnout in female physicians
3. Identify gaps in existing burnout interventions

## PROJECT OBJECTIVE/BACKGROUND:

Female physicians are facing burnout at higher rates than male physicians. Burnout leads to detrimental outcomes for the individual physician, but it also contributes to lower quality of care for patients and higher physician turnover rates.<sup>1,2</sup> Medical errors by physicians remain a common cause of morbidity and mortality.

## METHODS:

Members of the American College of Surgeons were sent an anonymous, cross-sectional survey in June 2008. The survey included self-assessment of major medical errors, a validated depression screening tool, and standardized assessments of burnout and quality of life (QOL).<sup>3</sup> Although many organizations have developed interventions to help prevent burnout, few have targeted their interventions to a group at high risk: female physicians.<sup>4</sup> Women face unique challenges that may be contributing to their higher rates of burnout, and therefore may need different interventions. Our research team has designed a mixed-methods research project to study the factors that contribute to burnout differently in family physicians by gender, and to understand the impact of the variety of interventions

that have been utilized thus far. We are currently conducting interviews with key informants including large health system administrators, female physicians, and national health policy leaders, and will survey, interview, and conduct focus groups with physicians in future phases of the project.

## SESSION PLAN AND TIMELINE:

**15 minutes-** Introduction of the problem and what we know so far about gender differences in contributors to burnout and interventions to help combat burnout in women. **30 minutes-** Small group discussion for 20 minutes with 10 minutes at the end to share findings with the larger group. Three groups will discuss how interventions do/do not adequately address burnout in female physicians at the: 1) Individual level 2) Organizational level and 3) Policy/system level. Participants will then identify potential changes at the individual, clinic, organization, or system level that would more effectively address burnout in female physicians. **15 minutes-** Gap Mapping- Large group. Leaders will facilitate a discussion with the larger group identifying gaps in what we know contributes to burnout in women and how we are addressing it.

## SESSION DESCRIPTION:

We will briefly share our project findings to date and, through audience participation, we will gain a better understanding of the factors contributing to burnout for female physicians, the existing interventions that are geared towards these factors, and the gaps we need to fill when designing burnout interventions. This session will help disseminate the information we have learned thus far and, through audience brainstorming and cataloging of existing interventions, will also add to our growing knowledge on the topic. Ultimately, the information gained through our research study will be presented in the form of a playbook for organizations to use when designing interventions to prevent burnout.

1. Shanafelt TD, Sloan JA, Habermann TM. The well-being of physicians. *Am J Med.* 2003;114(6):513-519.
2. Shanafelt TD, Balch CM, Bechamps G, et al. Burnout and medical errors among American surgeons. *Ann Surg.* 2010;251(6):995-1000. doi:10.1097/SLA.0b013e3181bfbdb3
3. Dyrbye LN, West CP, Satele D, et al. Burnout Among U.S. Medical Students, Residents, and Early Career Physicians Relative to the General U.S. Population: Academic Medicine. 2014;89(3):443-451. doi:10.1097/ACM.0000000000000134
4. West CP, Dyrbye LN, Erwin PJ, Shanafelt TD. Interventions to prevent and reduce physician burnout: a systematic review and meta-analysis. *The Lancet.* 2016;388(10057):2272-2281. doi:10.1016/S0140-6736(16)31279-X

# Empowering physicians to create change within the health care system

## Corresponding author:

Sunny Smith, MD

University of California San Diego School of Medicine

[sdsmith@ucsd.edu](mailto:sdsmith@ucsd.edu)

## LEARNING OBJECTIVES:

1. Define the relationship between self-efficacy and well-being
2. Describe the Listen Act Develop model to empower physicians to propose and implement change in organizations
3. Identify that re-framing beliefs including the perception of self-efficacy may serve physicians regarding their ability to create and influence change
4. List at least one action they could take to lead to systems-level change that may improve their own well-being and the well-being of others
5. Define the scientific method to test one change and assess outcomes, then move forward iteratively for continuous improvement

## PROJECT OBJECTIVE/BACKGROUND:

Physicians are uniquely trained, positioned, qualified, and called upon to identify what needs to be changed in health care, to be involved in change, and to assess if these changes have resulted in meaningful improvements.

Many physicians perceive they do not have control over their work schedule, patient load, staffing, workflow, clerical burden, or other factors greatly impacting their well-being. The lack of autonomy is a known contributor to physician burnout and distress.

However, it is possible for physicians to believe that they do in fact have some control over their clinical practice. Those physicians attending this conference will be uniquely positioned to influence their organizations after learning best practices from all over the country regarding innovations in systems-based changes aimed at improving physician well-being.

One important yet often overlooked factor that is likely to significantly influence their actions once they return home is their perception of self-efficacy and their belief in their ability to influence or create change in their institution. This session will be uniquely designed to review each participant's "default" patterns in thoughts and beliefs regarding physician control and influence in their health care systems. We will then review constructs in organizational psychology, data, and best practices in empowering physicians to identify problems and implement solutions. Participants will be encouraged

to consider that we are medicine, we are the culture, we set the tone. When we change, the culture starts to change. When we bring the belief that things can and will change, others can start to see this possibility as well.

We will then review the scientific method for forming a hypothesis, changing one variable, testing the variable, gathering data, assessing the impact of the intervention, forming conclusions, and conducting iterative testing for continuous quality improvement.

We will discuss the importance of allies and accountability partners, community, and regularly scheduled check-ins. Those who are interested will be encouraged to share contact information and keep in touch and share progress.

## SESSION PLAN AND TIMELINE:

1. **10 minutes:** Introduction/background
2. **10 minutes:** Participants reflect on their current thoughts, beliefs, perceptions, challenges
3. **10 minutes:** Psychological construct and data regarding empowering physicians to make change
4. **10 minutes:** Participants reflect, brainstorm, and identify at least one action they could take to propose change in their health care system
5. **10 minutes:** Participants share best practices that have worked and next steps they can/will take
6. **10 minutes:** Q & A

**COMPLETE ONLY THIS FIRST QUESTION DURING THE FIRST REFLECTION PERIOD**

What are your most common thoughts about your ability or the ability of other physicians to make meaningful change in your health care organization?

**COMPLETE THE FOLLOWING ITEMS AFTER THE PRESENTATION ON EMPOWERING PHYSICIANS TO CREATE SOLUTIONS IN HEALTH CARE**

What are more empowering thoughts you could have regarding your ability to make change in your health care organization? What might be possible that you hadn't seriously considered or acted on before?

**1. "It is possible that...."**

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**2. What action(s) will you take?**

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**3. Be specific (eg I will email x person to set up a meeting to discuss y on Monday).**

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**4. Who are possible allies?**

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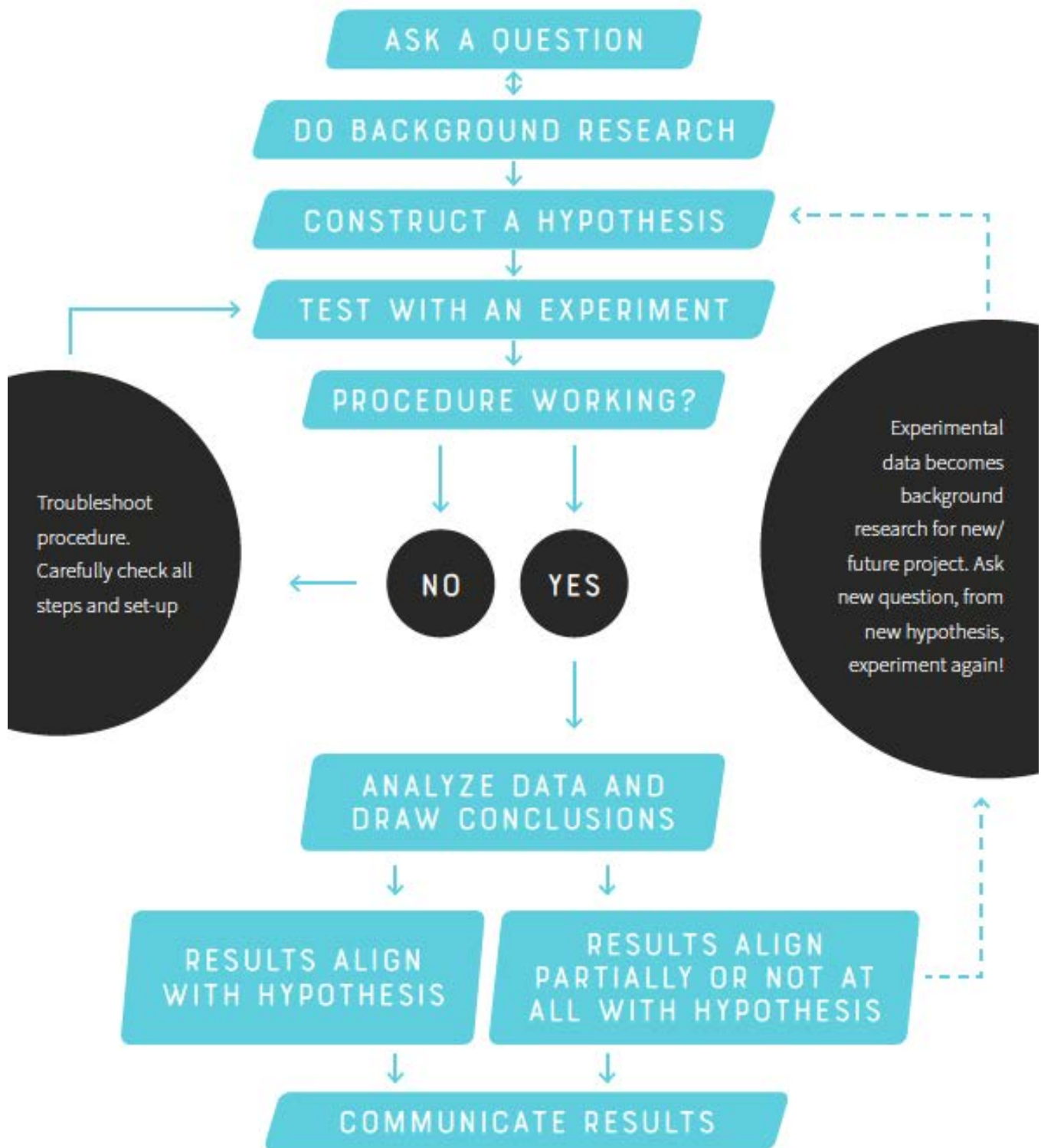
**5. How can you build community?**

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# From the C-suite to the dean's office: Strategic partnerships for organizational well-being

**Corresponding author:**

Larissa Thomas, MD, MPH

University of California, San Francisco

[larissa.thomas@ucsf.edu](mailto:larissa.thomas@ucsf.edu)**Co-author(s):**

Saadia Akhtar, MD

Jonathan Ripp, MD, MPH

**LEARNING OBJECTIVES:**

1. Describe the relationship between the emerging roles of chief wellness officer and director of GME well-being, using examples from two institutions.
2. Identify shared priorities and strategies for organizational well-being that simultaneously support faculty/staff physicians and trainees.
3. Reflect on opportunities to leverage resources for well-being across the continuum of physician practice.

**PROJECT OBJECTIVE/BACKGROUND:**

In order to effectively implement a strategic vision for improving organizational well-being, many institutions have recently created chief wellness officer positions to prioritize physician well-being at the level of the C-suite. Concurrently, many teaching hospitals and academic centers have begun to designate funded positions to spearhead well-being efforts in graduate medical education (GME). Partnership between these two roles can maximize the potential for organizational change through advocacy around shared priorities across the spectrum of training and practice. Such strategic alliances are essential to simultaneously improve trainee and faculty well-being when institutional resources are limited. The objective of this workshop is

to describe the role of partnerships between the C-suite and GME in improving institutional alignment around organizational well-being interventions.

**SESSION PLAN AND TIMELINE:**

1. **15 minutes: Background and experiences from two institutions**
2. **20 minutes: Small groups: create a matrix of well-being "hot spots" and identify which areas have alignment for faculty and trainees**
3. **15 minutes: Large group debrief**
4. **10 minutes: Taking it home: how can you build strategic partnerships if your institution has no funded well-being positions?**

**SESSION DESCRIPTION:**

In this workshop, the presenters will share their experiences of the evolution of the CWO and GME well-being leader roles and the value of collaboration between these leaders. Participants will work in small groups to identify organizational well-being goals that are common to faculty and trainees, and will then consider ways to leverage resources to simultaneously improve well-being for both groups. Finally, participants will learn strategies to begin partnerships at institutions in which funded well-being leadership roles are not yet available.

# Hot-spotting: Making it safer to share and to receive difficult feedback

## Corresponding author:

Greta Ehrhart, MPA  
 Christiana Care Health Services  
[gehrhart@christianacare.org](mailto:gehrhart@christianacare.org)

## LEARNING OBJECTIVES:

Participants will learn how to ...

1. Elicit actionable feedback from front-line providers regarding structural and cultural barriers to joy in medicine.
2. Mitigate the political risks associated with surfacing systemic issues that impact well-being.
3. Increase leadership receptivity to feedback.

Relation to conference theme:

1. The hot-spotting intervention is designed to identify actionable systemic factors that make physicians/APCs more susceptible to burnout or impede their professional fulfillment.

## PROJECT OBJECTIVE/BACKGROUND:

Hot-spotting is a focus-group-based intervention that elicits actionable feedback from front-line providers about structural and cultural barriers to joy in medicine (Shanafelt & Noseworthy, 2017). Prior to the session, an intake process is performed to evaluate the readiness of recommended groups and their leaders.

During the session, front-line providers share feedback on positive and negative aspects of their professional experience. They can also recommend remediation efforts to factors they perceive as dissatisfying. Leaders support the process but do not attend to allow for a more open exchange of ideas.

Following the session, the feedback and corresponding recommendations are aggregated into themes both to streamline messaging and to foster anonymity. Summarizing the feedback can also allow the message to be presented in a more palatable manner by limiting inflammatory language. The focus group facilitator works with the leaders to refine any recommendations made by group participants and to potentially add additional recommendations. Leaders are offered

leadership coaching services to prepare them to receive and effectively respond to difficult feedback.

To evaluate this approach, participants are surveyed about the helpfulness of the focus group session and also given the opportunity to provide feedback that they did not feel comfortable sharing in the room. The experience of the leaders is evaluated through informal conversation. The introduction of leadership coaching and the current process for developing recommendations are both examples of how these informal conversations have led to refinement of the hot-spotting process.

## SESSION PLAN AND TIMELINE:

10 mins	Overview of Hot-Spotting
10 mins	Activity #1: Intake, Evaluation of Readiness
5 mins	Debrief of Activity
10 mins	Activity #2: Sharing Findings & Developing Recommendations
5 mins	Debrief of Activity
5 mins	Conclusion
15 mins	Q&A

## SESSION DESCRIPTION:

This session will emphasize how the work done before, during, and after the focus group session fosters receptivity and promotes an ongoing dialogue between a leader and their team. After a brief overview of the hot-spotting process, attendees will participate in two experiential activities. The first will be designed to explore the intake process and evaluating the readiness of a group or leader to participate in the process. The second will explore strategies for summarizing feedback for leaders and then working with them to develop recommendations that consider the needs of the group. In the course of both activities, attendees can propose scenarios for discussion, collectively explore potential mitigation strategies, and share lessons learned.

# Measurement as a key driver of transformative and sustainable health system change

## Corresponding author:

Mark Rosenberg, MD  
**Director Compassionate Care**  
**Providence St. Joseph Health**  
[Mark.rosenberg@providence.org](mailto:Mark.rosenberg@providence.org)

## Co-author(s):

Becca Hawkins, MSN

## LEARNING OBJECTIVES:

1. Understand how to use large scale data to drive organizational change
2. Develop an personal array of measures useful in demonstrating changes in teams
3. Create a process for selecting measurements of change in individuals

## PROJECT OBJECTIVE/BACKGROUND:

Working in a large multi-state healthcare system, we have had opportunity to develop, interpret, and utilize measurement at multiple levels within our organization (system, team and individuals). We have experienced how strategic choices in measurement and communicating results to key stakeholders have created momentum toward organizational embrace of physician and caregiver well-being.

## SESSION PLAN AND TIMELINE:

Our presentation will describe our experience with measurement at multiple levels within the organization. Presentation will total 45 minutes with 15 minutes interspersed for Q&A and group discussion.

## SESSION DESCRIPTION:

**Organizational Level Measurement:** With more than 100,000 employees, measurement at the organizational level is complicated to perform and analyze. We will describe our experience of embedding customized burnout and compassion questions in the employee engagement survey, which has catalyzed our work.

### Key Points:

- Clarify the difference between engagement and well-being
- Coordination dilemmas when providers and caregivers use different surveys to measure engagement
- High value of implanting customized questions in a standardized survey
- Power of correlating well-being measures with other key outcomes (attrition, meaning in work, safety)

**Team Level Measurement:** Measuring the impact of well-being interventions may be best done by measuring “team impact”. We will demonstrate this concept

by sharing our measurement strategy for our team-based “Compassion Curriculum”. We will describe how objective, strategically chosen measurements, which allow impactful but easy data retrieval, facilitate adoption and dissemination of an intervention.

### Key Points:

- Collecting outcome measures beyond burnout allowed greater acceptance
- Small randomized pilot data allowed less demanding data acquisition in subsequent cohorts
- Key data results (improvement in engagement, patient experience and productivity) sparked wide dissemination (>1,000 staff/ 30 clinics and growing)
- Beneficial impact of this success on organizational leadership’s response to subsequent projects

**Individual Level Measurement:** Knowing how to measure individuals and report outcomes, with accuracy, while addressing concerns about confidentiality is essential. Measurement at the individual level provides rich data that is motivating for change. We will describe our measurement work with Gratitude and Mindfulness.

### Key Points:

- Criteria for selecting measurement techniques for individuals (ease of use and responsiveness of measure to intervention)
- Maintaining anonymity
- Value of individual measurement
- Ethical dilemmas in reporting results to individuals, leaders and organization

**Handout:** List of measurements that we have used with strengths and weaknesses identified. The list will be expanded during the presentation to include measures that have been used by the participants.

# Meeting physicians half way: Launching a tele-counseling service for providers

## Corresponding author:

Ellie Rajcevic, MPA  
**MultiCare Health System**  
[Eirajcevic@multicare.org](mailto:Eirajcevic@multicare.org)

## LEARNING OBJECTIVES:

1. Understand one health system's journey to providing tele-counseling services to providers
2. Conduct a gap analysis to identify the need for tele-counseling services within your organization
3. Identify stakeholders who can support offering tele-counseling services to providers

## PROJECT OBJECTIVE/BACKGROUND:

(indicate if the program has been evaluated, the nature of the evaluation and what was concluded from the evaluation): In 21 months since beginning to offer free, confidential counseling services through our health system's Provider Wellness Program, 44 providers have accessed services, and 60+ sessions have been conducted. Responding to this need, as the program's services expanded to serve physicians and APPs in another region within our expanding health system, tele-counseling services have been initiated to serve all our geographically dispersed providers.

## SESSION PLAN AND TIMELINE:

The session could occur within a 60-minute time frame. The full session would enable attendees to hear about our journey to initiating counseling and tele-counseling services through our organization's Provider Wellness Program. Attendees would have two break-out sessions, one to discuss current organizational needs and the other to discuss organizational capabilities. Through this gap analysis, attendees would be able to learn from each other and identify areas of priority for their practice or organization to start to develop a strategy or to build on an existing program.

## SESSION DESCRIPTION:

As steady access of in-person counseling services has continued since 2017, our program responded to demand in anticipation of the expansion of Provider Wellness services to another region 300+ miles away. Presenters will share our story of initiating the offering of free, confidential counseling and tele-counseling services, while providing space for our attendees to do initial brainstorming and planning for their own

practices or organizations. The session would include the following content:

- I. Our Journey: Considerations in providing free, confidential counseling and tele-counseling to physicians and APPs
  - a. Legal
  - b. Human Resources
  - c. Leadership Support
  - d. Confidentiality
  - e. Documentation of services
- II. Break-out session #1: What are the needs and opportunities in your practice/organization? What challenges would you face?
- III. Responding to demand and scaling services to meet the needs of more providers: Tele-Counseling Services
  - a. Identify a secure platform
  - b. Adjust/create policies and procedures to support the providers and Provider Wellness team
  - c. Trial and testw
  - d. Launch: If you build it, they will come
- IV. Breakout session 2: What are your capabilities? What are the gaps that exist between demand and capability? What steps could you take to get your practice or organization closer to providing services for your physicians and providers?
- V. Developing your own next steps
- VI. Conclusion

# Promoting physician resilience through centers for physician well-being: Organizational challenges and solutions

## Corresponding author:

Wayne M. Sotile, PhD  
**Center for Physician Resilience**  
[Sotile@SotileMail.com](mailto:Sotile@SotileMail.com)

## LEARNING OBJECTIVES:

Following this workshop, participants should be able to:

1. Discuss the key components of a sustainable Center for Physician Well-being
2. Describe approaches to overcoming organizational challenges in the development and sustaining of physician well-being initiatives
3. Describe at least three tactics for successfully coaching physicians re: well-being

## WORKSHOP TIMELINE:

This workshop will elucidate the key components of successful Centers for Physician Wellness ("Centers") and will operationalize key aspects of effective resilience training and coaching for physicians, from residency through retirement. Through a series of brief, dyadic discussions and group processing and problem-solving, the challenges and solutions for developing Centers and/or coaching physicians will be garnered and organized into key, actionable take-away tactics and strategies for advancing and deepening this work. In addition, best practices from the facilitator's consultation with health systems nationally over the past 30 years and his coaching/counseling experiences with more than 10,0

0 physicians over the past 40 years will be highlighted. Two case studies will provide material for discussion and group interaction: one will describe a floundering effort to get institutional support and physician buy-in for a Center; the second will describe a thriving Center. In addition, a resilience curriculum and coaching process based on a three-year project with neurosurgery faculty and residents will be discussed, highlighting noteworthy institutional supports and facilitator challenges and solutions. Here, tactics and strategies for helping physicians to move beyond "waiting for 'them' [organizations] to change" mentality, to, "in the meantime," taking responsibility for self-care will be discussed. Two handouts will be made available.

Minutes	
10	<b>Overview</b>
5	Case One: "A Floundering Center"
5	Dyadic discussion of solutions in Case One
10	Group processing
5	Case Two: "A Thriving Center"
15	Key tactics and strategies
10	Discussion

## HANDOUT ONE:

Ideal Components of a Physician Center for Wellness

## HANDOUT TWO:

Eight Topic Tracks for a Comprehensive Physician Resilience Training Curriculum.

This workshop will affirm some aspects of each participant's ongoing efforts to drive institutional support of wellness efforts, and it will challenge each participant with a list of ideas about tangible next steps, to assure viability and sustainability of their work.

# Resident physician well-being: Seminal events and multi-level strategies to embed wellness and health into clinical learning environments

## Corresponding author:

Mark Mason, PhD

**Christiana Care Health System**

[mark.d.mason@christianacare.org](mailto:mark.d.mason@christianacare.org)

## Co-author(s):

Vanessa Downing, PhD

## LEARNING OBJECTIVES:

Participants will learn to:

1. Describe physician well-being models for individuals and organizations
2. Identify seminal events as opportunities to enact systems change
3. Develop interventions across individual, residency/fellowship, and organizational levels to promote a culture of wellness

## PROJECT OBJECTIVE/BACKGROUND:

Christiana Care Health System created the Center for Provider Well-being in 2016. Charged with the mission of fostering joy and meaning for providers and their teams, the Center embarked on a pilot to embed a small, local well-being initiative that developed over time into a comprehensive, collaborative, and multidisciplinary approach to enhancing well-being across the clinical learning environment.

The Center began by piloting quarterly, confidential psychologist-led well-being sessions to two residency programs, and by year two of this initiative, a total of ten residency/fellowship programs added the sessions to their protected lecture time. During the expansion of this program, several “seminal events” occurred that offered opportunities to engage and partner with essential stakeholders, to attempt critical system and policy evaluation and redesign, and to embed lasting organizational change in the clinical learning environment.

“Seminal events” first presented as problems and potential crises for the institution. However, viewed through the lenses of Stanford’s WellMD (2017) model and Mayo’s driver dimensions for engagement and

burnout (Shanafelt & Noseworthy, 2017), they became opportunities for partnerships with Academic Affairs, residency/fellowship program leadership, and our learners to address systemic drivers of burnout and fulfillment. Qualitative and quantitative assessment that informed the change process will be presented, and workshop participants will apply this “seminal event” change-management approach to their own institutions.

## SESSION PLAN AND TIMELINE:

1. **Resident Physician Wellness and Guiding Models (10 mins):** How theory can guide pilots and early efforts, identifying low-hanging fruit.
2. **Seminal Event #1 (10 mins):** What happens when well-intended efforts yield more than you bargained for? Participant activity about decision making when the unintended occurs.
3. **Seminal Event #2 (10 mins):** Resident in crisis! Learning to systematically dismantle barriers to help-seeking behavior.
4. **Seminal Event #3 (10 mins):** Reframing participant-identified problems as seminal events in the evolution of their well-being programming.
5. **Insights/Lessons Learned (5 mins)**
6. **Panel Q&A (15 mins)**

## SESSION DESCRIPTION:

Join us for an interactive, problem-based learning approach to exploring how to integrate well-being into the clinical learning environment for resident physicians at a large, affiliated, independent medical center. Together, we will apply wellness models to understanding resident physician engagement and burnout while designing interventions that go far beyond personal resilience to embedding systematic organizational change in the clinical learning environment. A comprehensive, multi-level approach will be emphasized. Lessons learned and best practices, along with the evolution of the program and seminal events along the way, will be discussed.

# The starting line: Using the appreciative inquiry to conduct a needs assessment for well-being initiatives

**Corresponding author:**

Cristin McDermott  
University of Pittsburgh Medical Center, Depts of Pediatrics  
& Psychiatry  
[mcdermottc@upmc.edu](mailto:mcdermottc@upmc.edu)

**Co-author(s):**

Victoria Winkeller

**LEARNING OBJECTIVES:**

1. Learn the principles of Appreciative Inquiry.
2. Utilize the Appreciative Inquiry method to engage in a needs assessment/brainstorming session.
3. Practice engaging in an Appreciative Inquiry.
4. Be able to utilize the Appreciative Inquiry method to develop action items within their primary intervention group.

**PROJECT OBJECTIVE/BACKGROUND:**

This workshop will teach participants how to use an innovative, strength-based method to conduct a needs assessment and develop an action plan for well-being initiatives on both individual and systems levels. The Appreciative Inquiry (AI) method can be adapted to fit various group settings and time constraints. AI represents a useful and interactive approach for generating well-being initiatives across many settings and provides a way for systems to go directly to the source.

**SESSION PLAN AND TIMELINE:**

We will provide tip sheets on the basics of AI, suggestions for how to use and adapt the AI based on time and group size. We will also provide an interactive AI worksheet that may be utilized outside of the conference setting. Any additional resources requested by the participants will be gathered and distributed via email.

**TIMELINE:**

1. Introduction and Overview of AI (15 minutes)
2. Small Group Break-Out Session (30 minutes)
3. Report Out (5 minutes)
4. Wrap-up and Q&A (10 minutes)

**SESSION DESCRIPTION:**

While overarching themes of well-being are the same for many, the methods used to promote well-being are specific to the individual, to the community and to the system within which one works. Going to the source is an important first step in understanding what will work best. This workshop will teach participants how to use an innovative, strength-based method to conduct a needs assessment and develop an action plan for well-being initiatives on both individual and systems levels. The Appreciative Inquiry (AI) method can be adapted to fit various group settings and time constraints. AI represents a useful and interactive approach for generating well-being initiatives across many settings.

