Development and Use of a Survey Tool to Prioritize and Catalyze Change Surrounding Faculty Wellness in a Department of Pediatrics

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ABSTRACT

**Introduction:** Physician wellness is an important factor in the delivery of safe, effective and humanistic patient care. There is compelling data describing the widespread prevalence of physician burnout and its subsequent adverse impact on patient care, healthcare costs, and relationships. Initiatives to improve wellness are necessary to maintain the healthcare workforce as well as to ensure high-quality care. This project investigated faculty physicians’ attitudes and priorities regarding physician wellness within the department of Pediatrics at a single-center academic institution.

**Methods:** A survey was created and distributed via e-mail to all faculty physicians employed within the Department of Pediatrics in 2019. Participants were asked to rate their agreement with statements regarding workplace wellness and to prioritize the potential allocation of resources designed to improve their satisfaction and wellness at work. Data were analyzed using Excel\(^*\) for quantitative and descriptive statistics.

**Results:** 87 (74%) faculty members responded to the survey, with respondents representing all faculty tracks and ranks, male and female gender identities, and a wide range of years of employment. Sixty-eight percent of physicians (n=59) identified physician wellness as a problem. Faculty overwhelmingly identified “time,” “EMR” (electronic medical record) and “overworked” as the greatest impediments to workplace wellness. Thirty-nine percent (n=34) wrote “colleagues” to describe the single most positive contributing factor to their workplace wellness; and 72% (n=63) of docs indicated that resources should go to improve efficiency of practice. There was a correlation with feeling respected in the workplace and having the resources needed (R=0.28, p < 0.001), as well as feeling recognized by leaders (R=0.38, p < 0.001). Weak correlation was also identified between perceptions of wellness as a priority in the department and agreement with feeling respected (R=0.1, p < 0.001).

**Conclusion:** This study reveals the priorities for allocation of resources that best support Pediatric faculty wellness. Overall, the majority of respondents (72%) strongly preferred interventions that improve efficiency of practice over those that improve the culture of wellness or personal resilience. The emphasis on expanding clinical resources available to faculty members offers important insight into effective practice change for academic institutions. While improving personal resilience has become a hallmark of ‘wellness’ in the medical field, this data suggests that improving workplace efficiency is more representative of physician needs and priorities.

INTRODUCTION

Physician wellness is an important factor in the delivery of safe, effective and humanistic patient care as well as in the ability to sustain the medical workforce. There is compelling data describing the widespread prevalence of physician burnout and its subsequent adverse impact on patient care, healthcare costs, and social relationships [1-5]. Both the National Patient Safety Foundation (NPSF) and the Institute for Healthcare Improvement (IHI) recently published White Papers on the subjects of “Creating Joy, Meaning and Safer Health Care” and a “Framework for Improving Joy in Work,” respectively [6, 7]. In addition, Stanford University created the WellMD Center in 2015 to further physician well-being through support services, research funding, and resource development.

Subsequent research by Pieter DeVries of the WellMD Center has identified three major domains of physician well-being [8]. These domains are efficiency of practice, a culture of wellness, and personal resilience. While personal resilience is cultivated...
on an individual level, a culture of wellness and efficiency of practice are organizational characteristics that significantly impact physician well-being. One study indicated that physician well-being was most benefited by physicians’ conviction that they were making contributions through meaningful work, while external administrative factors proved the most detrimental to sustaining well-being [9].

At academic institutions, significant attention has been focused on the well-being of trainee physicians [10]. Initiatives targeted to trainees are an important aspect of addressing the impact of burnout, depression, and moral fatigue on patient care and institutional culture but these initiatives are incomplete without consideration of faculty physician well-being.

Using the published work of the Stanford WellMD Center, the IHI’s framework, and the NPSF’s roundtable report, we derived a conceptual framework to explore and address physician faculty workplace wellness. We used this conceptual framework to explore faculty perceptions of factors impacting faculty wellness, and how faculty would prioritize the allocation of resources to improve wellness at a single-center academic institution.

METHODS
Study Setting/Design
This study was implemented within the Department of Pediatrics affiliated with a large urban academic center in the northeast United States in 2019. Given the potentially sensitive and personal nature of disclosures of facilitators and barriers to wellness in the workplace, a cross-sectional survey was designed and utilized to collect information on promoters of and impediments to workplace wellness from faculty in a secure, deidentified manner.

Conceptual Framework and Survey Development
Two of the authors (SR, KM) conducted a literature review to develop the first iteration of the conceptual framework and survey instrument. The initial guiding questions of “what are the barriers to faculty physician wellness, and what do faculty think is most needed to improve wellness?” were grounded in the framework described in the interrelated works of the IHI and the NPSF. These works emphasize that physician workplace wellness is essential to patient care and organizational function. They exhort organizational leaders to explore and address impediments to workplace wellness using a systems-approach model where responsibility is shared by all members of the group. According to the framework described by the NPSF, a foundational part of achieving and maintaining workplace wellness is ensuring that each person in the organization can answer yes to three questions:

1. Am I treated with dignity and respect by everyone?
2. Do I have what I need so I can make a contribution that gives meaning to my life?

A voluntary focus group of faculty physicians in the Department of Pediatrics met on two separate occasions to discuss the construct of physician workplace wellness. Members of the group were diverse and representative of the intended study participants along the spectrum of academic rank, age, gender, type of practice and time at the institution. Focus group participants identified several key concepts related to physician well-being, including the importance of fair compensation for efforts and the distinction between recognition by peers and recognition by leadership. The focus group enriched the conceptual framework through consensus that survey participants be asked to prioritize initiatives to improve wellness via selection of one of the three domains of physician well-being: efficiency of practice, a culture of wellness and personal resilience [8]. The focus group developed a list of organizational actions and resources to be selected within each domain. Discussions within the focus group continued until no new themes emerged.

The initial guiding questions, literature review, and focus group discussions were synthesized into an expanded conceptual framework comprised of four components:

1. Faculty physician wellness is essential to patient care and organizational function.
2. A foundational requirement for workplace wellness is faculty members’ beliefs that they are a) treated with dignity and respect, b) adequately supported to facilitate meaningful contribution, c) recognized, thanked by peers and d) by leaders, and e) fairly compensated.
3. A comprehensive systems approach is needed to improve and sustain physician workplace wellness.
4. An actionable analysis of workplace wellness requires an assessment of both impediments to and facilitators of wellness.

Items developed for this survey were focused on the latter three elements as it was believed that the first was adequately addressed in the literature. Generally accepted practices in item writing and response anchors were used to guide survey design [9, 10, 11].

To support content validity, the survey was grounded in literature and reviewed by advanced pediatric educators that have published using survey methodologies. These reviewers were external to the institution at which the survey was to be distributed. Items and anchors were then modified for clarity, representativeness and relevance. For each survey item, an optional open-ended text box was added to encourage further commentary from the study participants. Response process validity was addressed by conducting cognitive interviews with pediatric faculty at other academic institutions. Pilot testing with additional faculty and senior trainees outside of the intended survey population led to the elimination of some demographic questions thought to be identifiers within a single department (e.g. race, age). All members of the study team approved the final version of the survey.

Survey Item Description
To assess current perceptions of wellness, faculty members were asked to indicate their own experience of the five foundational elements of faculty physician wellness: 1) Being treated with dignity and respect, 2) Adequate support for meaningful contributions to the department, 3) Being recognized and thanked by peers, 4) Being recognized and thanked by leaders,
and 5) being fairly compensated. Bipolar absolute metric scales were used to assess the full range of faculty experience with these five foundational elements. These are 100-point sliding scales with the midpoint being neutral and the ends anchored with “very strongly disagree” to the left and “very strongly agree” to the right. These scales were also used to gauge faculty physicians’ perception of the culture of wellness within the department and institution in response to “wellness is a problem in the department” and “wellness is a priority for the department and for the institution.”

Participants were then asked to write one word each describing both the single greatest impediment to and facilitator of their workplace wellness. A word cloud was subsequently generated using NVivo™ (NVivo 12 Qualitative Analysis Software, 2020). In this visual representation, the depiction of the size of the word directly correlates with the frequency with which that word was reported by survey respondents. Words were corrected only for spelling errors, with no other adjustments to wording made.

For allocation of resources, an image of the three established domains of physician well-being was presented within the survey [8]. Respondents were asked to select which of the three they would prioritize for resource allocation. Selection of any of the three domains on the survey led to a drop-down menu of a specific organizational action or resource within that domain with the additional choice of “other” to permit the write in of a desired resource not identified by the focus group.

Information about respondents was collected which included gender, academic rank, years out of training, years at the institution. The final survey as disseminated is available as Appendix A.

Survey Implementation

This study was reviewed and declared exempt by the hospital Institutional Review Board prior to data collection. The data was collected from January 2019 until March 2019 and managed using REDCap (Research Electronic Data Capture) tools hosted at Lifespan’s Department of Information Services [12]. All faculty physicians in the Department of Pediatrics at the institution were invited via email to participate in the survey using a secure individualized link for data collection. The launch of the study was announced at one department-wide faculty meeting and disseminated in the minutes from that meeting to all departmental faculty. Three automated e-mail reminders to participate were sent over a period of five weeks. The purpose of the study was explained in the email invite and an affidavit of consent to participate was required to launch the survey.

Data Analysis

We present descriptive statistics of demographic data using counts and percentages. Bipolar scale questions were dichotomized such that any deflection of the cursor rightward indicates some degree of agreement while any deflection of the cursor leftward indicates some degree of disagreement. If the cursor was left at the midpoint the response cannot be indicative of either agreement or disagreement. The data was summarized and analyzed by Excel software (Microsoft Excel software, Version 16.47, 2021). Pearson correlation test was used to analyze the correlation amongst faculty agreement with perceptions of respect, compensation, and wellness in the department. The degree of correlation was expressed by Pearson correlation coefficient ‘R,’ and the correlation was considered as statistically significant when $p < 0.001$.

RESULTS

Demographics

A total of 87 faculty completed the survey for a response rate of 74%. Faculty respondents were highly representative of the faculty as a whole with regard to academic tracks and ranks, gender identity, and duration of faculty position. Approximately two-thirds of respondents identified themselves as female, consistent with national data regarding gender breakdown of practicing pediatricians [1]. Half of all faculty had been working at our institution for less than 10 years, with most respondents identifying as assistant or associate professor (Table 1).

Table 1: Demographic characteristics of study participants. 87 respondents, Pediatric faculty physicians, Providence RI 2019.

<table>
<thead>
<tr>
<th>Demographics</th>
<th>Total Sample (N=87), n (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender</td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>22 (25)</td>
</tr>
<tr>
<td>Female</td>
<td>59 (68)</td>
</tr>
<tr>
<td>No data</td>
<td>6 (7)</td>
</tr>
<tr>
<td>Rank</td>
<td></td>
</tr>
<tr>
<td>Assistant Professor</td>
<td>31 (36)</td>
</tr>
<tr>
<td>Associate Professor</td>
<td>31 (36)</td>
</tr>
<tr>
<td>Full Professor</td>
<td>7 (8)</td>
</tr>
<tr>
<td>Emeritus</td>
<td>10 (11)</td>
</tr>
<tr>
<td>Other/No data</td>
<td>8 (9)</td>
</tr>
<tr>
<td>Years Out of Training</td>
<td></td>
</tr>
<tr>
<td>0-5 years</td>
<td>22 (25)</td>
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<tr>
<td>6-10 years</td>
<td>10 (11)</td>
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<tr>
<td>11-15 years</td>
<td>17 (20)</td>
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<tr>
<td>16-20 years</td>
<td>11 (13)</td>
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<tr>
<td>&gt; 20 years</td>
<td>14 (16)</td>
</tr>
<tr>
<td>Prefer Not to Say/No data</td>
<td>13 (15)</td>
</tr>
<tr>
<td>Years at Institution</td>
<td></td>
</tr>
<tr>
<td>0-5 years</td>
<td>33 (38)</td>
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<tr>
<td>6-10 years</td>
<td>18 (21)</td>
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<tr>
<td>11-15 years</td>
<td>12 (14)</td>
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<tr>
<td>16-20 years</td>
<td>10 (11)</td>
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<tr>
<td>&gt; 20 years</td>
<td>10 (11)</td>
</tr>
<tr>
<td>Prefer Not to Say/No Data</td>
<td>4 (5)</td>
</tr>
</tbody>
</table>
Current Perceptions of Wellness

Sixty-one percent of faculty (n=53) indicated agreement with the statement “I feel that I am treated with dignity and respect by everyone in my workplace.” Faculty responses were almost equally distributed across the range of disagreement to agreement for the statement “I have what I need to make contributions to the Department in a meaningful way.” Forty-three percent of respondents (n=37) indicated agreement with the statement “I feel that my total compensation is appropriate for my efforts.” Faculty generally agreed with the statement “In my work activities, I am recognized and thanked for what I do by my colleagues/team.” with 91% expressing moderate to strong agreement. The parallel question asking about recognition from leaders and administration showed a broad and balanced distribution across the range of disagreement to agreement. Sixty-eight percent of respondents (n=59) agreed with the statement “Physician wellness is a problem in this department.” Forty-three percent (n=37) agreed with “Physician wellness is a priority in the department.” Only 30% (n=26) expressed any agreement with the related item “Physician wellness is a priority of the hospital system.”

Contributors and Impediments to Wellness

Survey respondents submitted “time,” “undervalued,” and “EMR” (electronic medical record) as the three most significant impediments to their workplace wellness. These terms were written in by 19%, 10% and 9% of respondents, respectively. Thirty-nine percent of respondents (n=34) wrote “colleagues” to describe the single most positive contributing factor to their workplace wellness, with the related terms “collegiality” and “people” reported each by 13% (n=11) (Figure 1).

Allocation of Resources

Of the three domains of physician well-being as presented in the survey, 72% (n=63) of respondents indicated that resources should go to improve efficiency of practice (Figure 2 - next page). For most respondents that selected “efficiency of practice,” the top organizational action to improve this domain was to “hire more ancillary staff in clinical areas” (24%, n=21). The second most requested organizational action was to “invest in improvements in the Electronic Medical Record” (13%, n=11), with the “use of medical scribes” contributing an additional 10% of selections (n=9). Fifteen percent (n=13) of respondents chose “other.” Many of these respondents wrote that several of these choices were essential and therefore they could not choose one.

Correlation Between Wellness Factors

Correlation analyses demonstrated correlation between agreement with feeling respected in the workplace and agreement with having the resources needed (R=0.28, p < 0.001), as well as feeling recognized by leaders (R=0.38, p < 0.001). Weak correlation was also identified between perceptions of wellness as a priority in the department and agreement with feeling respected (R=0.1, p < 0.001). However, there was no correlation between feeling respected and feeling compensated fairly.

DISCUSSION

Resilience and wellness of faculty physicians are central to the success of achieving the three main goals of academic medical centers: delivering compassionate, patient-centered care, advancing medical science, and training the next generation of health care providers. Using evidence in the literature as well as focus groups, we were able to develop an expanded conceptual framework for studying physician wellness. This framework was integrated into a survey designed to further our understanding of both the promoters of and impediments to wellness, as well as to identify opportunities and priorities for organizational change. We found, in one large academic department, that faculty overwhelmingly agreed that physician wellness is a problem, while less than half felt that physician wellness was a priority of departmental and institutional leadership.

Organizational commitment and engaged leadership that matches physician needs are essential [13, 14]. Discordance in priorities or perceptions thereof has been described in...
prior literature and itself can be a trigger for dissatisfactions and reduced faculty wellness in academic medicine [11]. In addition to prioritizing wellness, work that appeals to physicians’ passions and values, including a connection with the institutional mission, has been shown to contribute to positive wellbeing. However, physicians frequently report incongruence between stated goals and observed actions of leadership within their clinical setting [15].

Studies show that most interventions employed by institutions and medical departments focus on personal resilience factors affecting wellness, however our data suggests that faculty highly prioritize investment in initiatives to improve providers’ efficiency of practice [16, 17]. Such initiatives were overwhelmingly chosen over resources to enhance physician’s personal resilience or a culture of wellness. This aligns with known contributors to burnout and the burden of administrative tasks on physician functioning. Additionally, literature has shown the greater impact of organizational changes, though individual-focused interventions have also been found effective [16]. Indeed, these types of structural interventions are lauded in the American Hospital Association’s Well-Being Playbook as well as the National Academy of Medicine’s recent discussion paper outlining best practices in organizational-level change [18, 13].

The fact that “time” was the most cited impediment to wellness by our respondents is not surprising. Physicians are spending increasingly more time on administrative and clerical tasks in lieu of direct patient care and teaching [19-23]. Investment in clinical resources, such as the hiring of medical scribes or additional ancillary staff, may be tangible ways for healthcare systems to support physicians and strengthen their sense of well-being. Our findings give more granular information on desired, modifiable changes to address this impediment, though broader transformation of the US healthcare ecosystem is imperative.

The majority of faculty cited “colleagues” as the single most positive contributing factor to wellness, with many others citing related concepts of collegiality, community, and teamwork. This connectedness among faculty may contribute to similarities in prioritizing resource allocation and offer internal support for prioritizing efforts beyond culture-building. On the contrary, resource allocation was not desired towards “culture of wellness.” This may indicate two things: 1) the positive impact of colleagues is already established, and more input is not required, and/or 2) faculty focus on reducing deterrents to wellness rather than building up the promoters, a phenomenon called “negativity bias” [24]. While data does support the importance of community on promoting faculty wellness, studies have shown the existence of problems in relational aspects of academic medicine, including a sense of disconnection and diminishing trust, particularly between faculty and administration [25]. This can be linked to the emphasis on individual achievement and self-promotion found in academic medicine. Additionally, faculty may perceive real culture shift as too hard of an endeavor to be worthy of resources [26, 27].

**LIMITATIONS**

The study population was small and from a single center, and the importance of institutional context on faculty wellness may limit the broader applicability of collected data. The study population in this research was limited to faculty physicians who are but one part of the complex multidisciplinary teams providing...
care to patients. In addition, as study participation was voluntary, participants may be biased towards those with particularly positive or negative experiences to share.

However, the response rate of 74% strengthens the representativeness of this study to academic pediatric centers. It seems likely that local institutional and organizational culture, resources, and even infrastructure may significantly impact physician faculty wellness. The results of this single center study do not directly indicate the perceptions and priorities of all academic physicians, but the process that was used to collect the data can be used by organizations to understand and impact physician faculty wellness.

**CONCLUSION**

This cross-sectional observational study serves to describe important insight into faculty wellness, identifying key impediments and contributors, and clarifies priorities for the allocation of resources to improve wellness within an academic health care system. Organizations that explore and act upon such data can facilitate physician faculty wellness and contribute to organizational health, high functioning multidisciplinary teams, staff retention and the highest quality of patient care.

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**Conflict of Interest:** The author(s) have no conflict of interest to declare for this work.

**REFERENCES**


Dear Pediatric Faculty,

This completely anonymous survey is important to help us understand and work on faculty priorities for improving physician wellness. It should take 5-7 minutes, but could take longer if you are willing to write in detailed comments, which will likely prove quite helpful. We are aiming for 100% Faculty participation to best capture the thoughts and priorities of members of our department.

Thank you for your help!

Employer __________________________________

1. I feel that I am treated with dignity and respect by everyone in my workplace
   very strongly disagree neutral very strongly agree
   (Place a mark on the scale above)

2. Please write in the box any additional comments you may wish to add regarding Q1
   (all comments in this survey are de-identified and anonymous)

3. I have what I need (resources, education, financial support, encouragement, personnel, protected time) to make contributions to the Department of Pediatrics in a meaningful way
   very strongly disagree neutral very strongly agree
   (Place a mark on the scale above)

4. Please write in the box any comments you may wish to share regarding Q3

5. I feel that my total compensation (salary, professional development funds, retirement & benefits, vacation time) is appropriate for my efforts.
   very strongly disagree neutral very strongly agree
   (Place a mark on the scale above)

6. Please write in the box any comments you may wish to share regarding Q5

7. In my work activities, I am recognized and thanked for what I do by my COLLEAGUES/TEAM
   very strongly disagree neutral very strongly agree
   (Place a mark on the scale above)

8. In my work activities, I am recognized and thanked for what I do by my LEADERS and ADMINISTRATION
   very strongly disagree neutral very strongly agree
   (Place a mark on the scale above)
9. Please write in the box any comments you may wish to share regarding q. 7 and 8

10. Please try to use ONE WORD to describe what you perceive as the greatest IMPEDIMENT to your workplace wellness and your sense of well-being as a faculty member in the Department of Pediatrics

11. Please write in the box any comments you may wish to share regarding Q10

12. Please try to use ONE word to describe the greatest POSITIVE CONTRIBUTING FACTOR to your workplace wellness and your sense of well-being as a faculty member in the Department of Pediatrics

13. Please write in the box any comments you may wish to share regarding Q12

Research on physician wellness notes 3 components having significant impact on physician well-being; Practice Efficiency, a culture of Wellness, and Personal Resilience.

Reciprocal Domains of Physician Well Being
Source: P. Purpur deVries, Stanford WellMD

Components

- Efficiency of practice
- Culture of Wellness
- Personal Resilience

14. If resources could be prioritized to improve just one of these areas, which one would you choose?

- Resources towards improving Efficiency of Practice
- Resources towards effecting a Culture of Wellness
- Resources towards effecting Personal Resilience
15. Resources to Improve Efficiency of Practice
- Provide medical scribes
- Invest in EMR improvements
- Hire more ancillary staff in clinical areas
- Improve accessibility of research resources i.e. statistical support for projects
- Improvements in laboratory services
- Increase administrative support
- Other
(Please pick the single most helpful intervention)

15. Resources to improve a culture of wellness
- Departmental community building or social events
- Peer support training
- Create infrastructure for physician wellness, i.e. chief Wellness Officer and division
- Invest in on site services for exercise, wellness, work life balance
- Provide two paid wellness days per year in addition to vacation days
- Provide incentives for participating in wellness programs (discounted health insurance, counts towards bonus, etc)
- Provide compensation for additional tasks that are asked of you (scholarship, teaching)
- Other
(Please pick the single most helpful intervention)

15. Resources to effect Personal Resilience
- Sponsored mindfulness training
- Free or discounted psychological services
- Sponsored Yoga or exercise classes
- Sponsored retreats on coping strategies
- Other
(Please pick the single most helpful intervention)

16. If you selected "Other" please describe:

______________________________

17. Physician Wellness is a priority in the Department of Pediatrics
very strongly disagree neutral very strongly agree

(Place a mark on the scale above)

18. Physician wellness is a priority at Lifespan
very strongly disagree neutral very strongly agree

(Place a mark on the scale above)

19. Physician wellness is a problem in the Department of Pediatrics
very strongly disagree neutral very strongly agree

(Place a mark on the scale above)

Years at Hasbro/Lifespan as faculty?
- 0-5 years
- 6-10 years
- 11-15 years
- 16-20 years
- >20 years

Years since most recent training program?
- 0-5 years
- 6-10 years
- 11-15 years
- 16-20 years
- >20 years
What is your gender?
- Female/woman
- Male/man
- Gender Non-binary
- I prefer not to self identify

What is your academic track?
- Clinician educator
- Clinical
- Teaching scholar
- Research Scholar
- (Research)
- Don't know
- Other

What is your current academic rank?
- Instructor
- Assistant Professor
- Associate Professor
- Emeritus
- Unsure

Please enter any comments you wish to share on this survey or process here
__________________________________________