The 2013 Physician Wellness Survey Results: Stanford University Hospital and Lucile Packard Children's Hospital Medical Staff

Synopsis

The Stanford Committee for Professional Satisfaction and Support (SCPSS) recently conducted the Physician Wellness survey, which was completed by 831 physicians affiliated with Stanford University. The purpose of this report is to inform you of the results of the survey and to inform you about current efforts and evolving plans to improve physician wellness based on these survey results.

Key survey findings:

- Most physicians (76.4%) affiliated with Stanford report at least moderate Professional Fulfillment (i.e. happiness, self-worth, self-efficacy, and satisfaction at work).
- The most significant determinants of high level Professional Fulfillment are perceived appreciation and peer support.
- A significant portion (25.8%) of Stanford affiliated physicians, report one or more symptoms of burnout.
- The most significant determinant of burnout is sleep related impairment.

Current efforts and plans to improve physician wellness:

- The SCPSS is working with interested hospital and clinical department leadership to encourage a culture of appreciation.
- Risk Management in collaboration with the SCPSS has started a peer support program to provide immediate support to physicians who have experienced an adverse clinical event.
- A sub-committee of the SCPSS will work with the CME office and faculty members with relevant expertise to create a CME program to address sleep related impairment.
- The SCPSS will administer the Physician Wellness Survey every two years to assess progress and evolving physician health promotion needs.

Significance and objective of the Physician Wellness Survey

Physicians are interested in improving others' health and quality of life. The work of the SCPSS is supported, in part, by the premise that advancing wellness and quality of life for physicians and for patients are synergistic goals.

While physician wellness is increasingly recognized as an important component of good health care,[1] relevant literature documents persistently high rates of physician burnout[2] and the associated negative impact on patient care.[3] We believe prevention of burnout is necessary but not sufficient for optimal physician wellness and performance.[4] In order to thrive, academic medical centers must understand and enhance the factors that promote physician fulfillment.[5] Physicians who have the highest happiness, self-worth, self-efficacy, and satisfaction at work (i.e. Professional Fulfillment) will be the most effective health care providers.

The 2013 Physician Wellness Survey was designed to 1) assess Professional Fulfillment, 2) assess determinants of Professional Fulfillment, 3) assess burnout, and 4) assess determinants of burnout. The SCPSS is now using survey data to help develop, implement, and evaluate interventions to support physicians' Professional Fulfillment at Stanford and to prevent burnout.

Survey methods

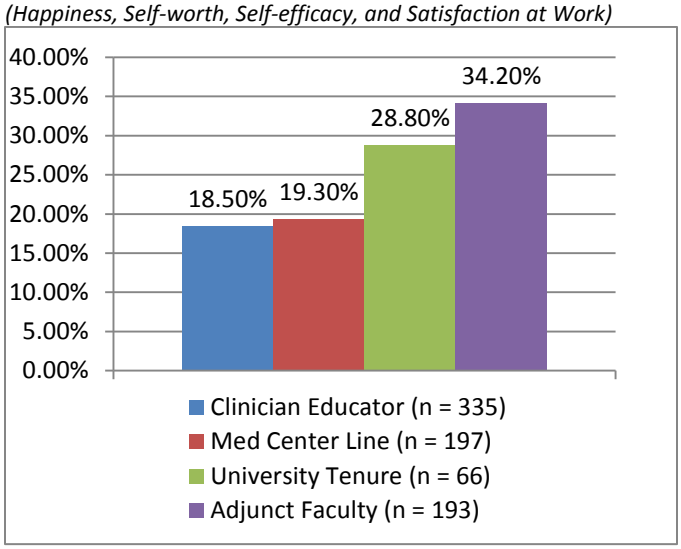
Following analysis of data from a pilot version of the survey, the subsequent 2013 Physician Wellness Survey was administered in two stages. Out of 249 physicians randomly selected from the medical staff, 162 (65%) completed the electronic survey. An additional 669 (31%) of the remaining 2135 medical staff members completed the subsequent survey of all physicians at Stanford. Random sample and convenience sample participants were not significantly different on variables of interest. Therefore, analyses were completed using all available data from both samples.

Results

Professional Fulfillment

Professional Fulfillment was assessed with a four item scale assessing happiness, self-worth, self-efficacy, and satisfaction at work (e. g. "I feel happy at work"), with five point Likert scale response options from "not at all true" to "completely true." Most physicians (76.4%) affiliated with Stanford report at least moderate levels of Professional Fulfillment, defined as an average item score of 2.0 out of 4.0 or higher. High Professional Fulfillment was defined as an average item score of 3.5 out of 4 or higher, which corresponds to the highest 23% of all scores. Figure 1 shows the percentage of physicians in each faculty track with high Professional Fulfillment.

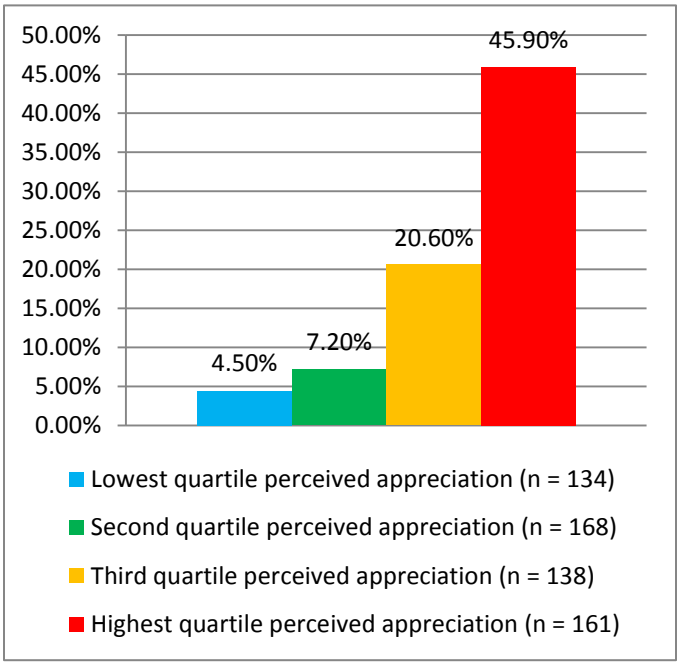
Figure 1: High Professional Fulfillment, by faculty line
(Happiness, Self-worth, Self-efficacy, and Satisfaction at Work)



Determinants of Professional Fulfillment

Multivariate linear regression results *(limited to Stanford employed physicians)* indicated the most significant predictors of higher Professional Fulfillment were perceived appreciation (Standardized $\beta = 0.42$; $p < 0.001$) and peer support (Standardized $\beta = 0.19$; $p < 0.001$), after adjusting for age category, self-identified race, and work hours (model $R^2 = 0.50$). Other statistically significant multivariate linear regression model work-environment predictors of Professional Fulfillment level were: organizational-personal mission alignment, control of schedule, and low sleep related impairment. Bivariate correlations with Professional Fulfillment of perceived appreciation ($r = 0.64$) and peer support ($r = 0.42$) represent large and moderate effect size, respectively. Hierarchical linear regression analysis results demonstrated that perceived appreciation accounts for significant individual within department variance as well as significant between department variance in physicians' level of Professional Fulfillment.

Figure 2: High Professional Fulfillment, by level of perceived appreciation (Stanford employed physicians)



Perceived appreciation was assessed with a five items scale (e.g. "I receive appreciation for good work" and "My department chair recognizes my contributions") with five point Likert scale response options from "not at all true" to "completely true." Figure 2 shows percentage of physician with high Professional Fulfillment by quartile of perceived appreciation.

Burnout

A significant portion (25.8%) of Stanford affiliated physicians, report one or more symptoms of burnout. Figure 3 shows percentage of physicians who, based on their own definition of burnout, reported one or more symptom of burnout such as physical and emotional exhaustion.

Determinants of Burnout

Multivariate logistic regression results limited to Stanford employed faculty indicated the most significant predictor of burnout was sleep related impairment. Each average item Likert scale point increase (on a five point scale) in sleep related impairment was associated with 146% greater odds of burnout (OR = 2.46; 95% CI = 1.78-3.39). Work environment factors that predicted lower odds of burnout were organizational-personal mission alignment (OR = 0.57; 95% CI = 0.44-0.74) and control of schedule (OR = 0.51; 95% CI = 0.40-0.66).

Figure 3: Physicians reporting burnout, by faculty line

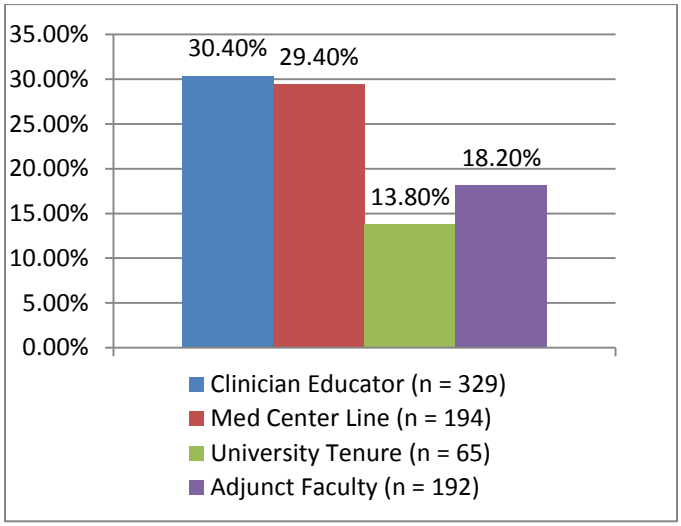
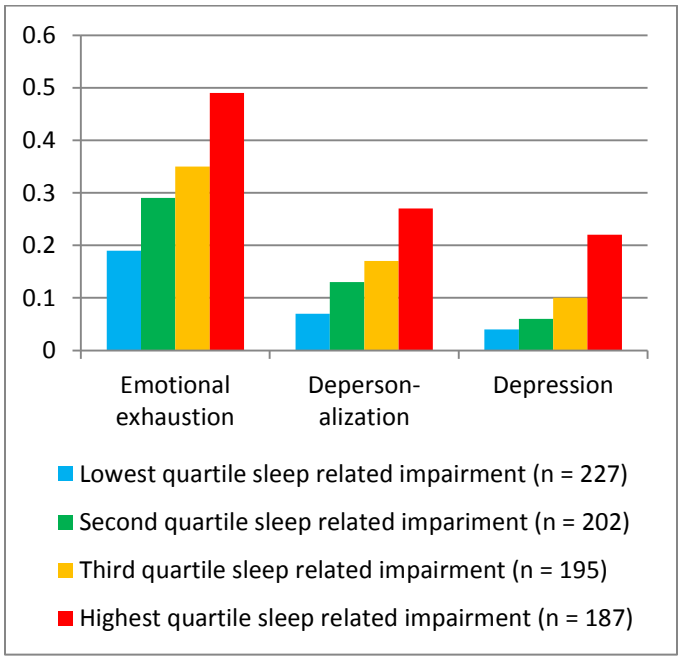


Figure 4 shows the association of sleep related impairment quartile with emotional exhaustion and depersonalization—both associated with negative impact on patient care[3]—and with depression. All three continuous measures were standardized on a 0 to 1 scale to facilitate interpretation. Emotional exhaustion (e.g. "Emotionally exhausted at work") and depersonalization (e.g. "Less sensitive to others' feelings/emotions") were measured with 4 and 7 items respectively, with Likert scale response options from "Not at all" to "Extremely." Sleep related impairment and depression were measured using NIH PROMIS assessment scales.

Figure 4: Average emotional exhaustion, depersonalization, and depression, by sleep related impairment quartile (on scale from 0.0 to 1.0)



Discussion Points

Results from this survey indicate that, if observed associations represent causal relationships, we may be able to increase Professional Fulfillment among physicians affiliated with Stanford by creating a work environment culture of appreciation for each other and by improving peer support. Results also indicate that we may be able to reduce burnout among physicians by reducing sleep related impairment, increasing organizational and physicians' personal mission alignment related to clinical care, and improving physicians' control of their schedules.

These survey results represent cross-sectional associations which do not allow for easy causal inference. Nevertheless, the observed associations are consistent with theoretical rationale and remain significant in multivariate analyses adjusting for measured potential confounding variables. We believe these results suggest physician workplace wellness hypotheses worthy of action and further evaluation.

Shaping a culture of appreciation

The SCPSS supports the compassionate patient care principles articulated by hospital leadership. Over the next weeks, we aim to create a parallel set of principles to help define a work environment culture of appreciation for physicians and all professional and support staff affiliated with the college of medicine. We will encourage and assist with development and implementation of medical college campus wide and department specific strategies to shape a culture of appreciation. We believe such strategies can increase Professional Fulfillment for physicians and others.

Creating a peer support program

The SCPSS has established a peer support program to provide immediate support to physicians who have experienced an adverse clinical event. Adverse medical events often result in additional adverse personal and professional consequences to physicians involved.[6] Timely peer support programs have been developed elsewhere to help physicians' following adverse events.[3,7,8] We have applied lessons learned by these

earlier innovative programs to develop a peer support program to fit the needs of physicians here at Stanford.

We hope that training physicians to be outstanding peer supporters will have rippling effects in creating a work environment culture of support and compassion for each-other as well as for our patients.

Addressing sleep related impairment

We are in the beginning stages of development of an online continuing medical education program to address sleep related impairment. The CME based intervention will help physicians attenuate the effects of sleep disturbance with simple strategies to improve sleep when a variable sleep schedule cannot be avoided,[9,10] use of cognitive and behavioral strategies to alleviate symptoms of insomnia,[11,12] and advocacy for reduction of excessive work hours.

Assessing our progress

The SCPSS will administer the physician wellness survey every two years to assess progress and evolving physician health promotion needs. With time, we hope participation rates in the survey will increase as physicians recognize the importance of advocating for a healthy work environment for themselves, their peers, and everyone else employed as part of our larger school of medicine and clinical services team.

We know that improving work environment culture takes adequate time, effort and political resolve. Although the fruits of our iteratively improving experiments in advancing physician wellness may not all be harvested in the most proximal season, we believe the benefits to our health, our colleagues' health, and to our patients' health will be worth the time and effort.

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