

Measures of Resident Burnout, Empathy and Emotional Intelligence as a Function of Years in Post-Graduate Training

Kevin Weaver DO

Lehigh Valley Health Network, kevin_r.weaver@lvhn.org

Amy B. Smith PhD

Lehigh Valley Health Network, amy_b.smith@lvhn.org

Marna R. Greenberg DO, MPH, FACEP

Lehigh Valley Health Network, marna.greenberg@lvhn.org

Elaine A. Donoghue MD

Lehigh Valley Health Network, elaine_a.donoghue@lvhn.org

Robert D. Barraco MD, MPH

Lehigh Valley Health Network, robert_d.barraco@lvhn.org

See next page for additional authors

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Published In/Presented At

Weaver, K, Smith, AB, Greenberg, M, Donoghue, E, Barraco, R, Quinn, J, Macfarlan, J, Porter, BG, Kane, B, Jacoby, JL. (2016, April 27). Measures of Resident Burnout, Empathy and Emotional Intelligence as a Function of Years in Post-Graduate Training. American College of Emergency Physicians.

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Authors

Kevin Weaver DO; Amy B. Smith PhD; Marna R. Greenberg DO, MPH, FACEP; Elaine A. Donoghue MD; Robert D. Barraco MD, MPH; Joann Quinn PhD; Jennifer Macfarlan; Bernadette Glenn-Porter BS; Bryan G. Kane MD; and Jeanne L. Jacoby MD

content in EM related to wellness and were also asked to comment on other wellness topics including: Assignment of a wellness champion, use of faculty mentors, resident retreats, and coverage of other wellness topics.

Results: 95 individuals responded from the 150 programs. 84% reported covering the core content related to wellness in EM. 92% reported having faculty mentors for their residents and 85% had annual retreats for their residents. Only 55% of programs reported having a wellness champion. 57% of programs reported covering topics beyond the core content including: Finances, nutrition, communication, career development, mindfulness training and dealing with litigation stress.

Conclusions: The majority of EM residency programs cover the wellness core content and many have other wellness offerings. More study is needed to determine if these approaches truly impact EM resident wellness.

243 Individual Competition as a Novel Approach to Population Health Management: A Corporate Wellness Model Designed in an Emergency Department Residency Program



Smith J, Derr C, Wilson J/Morsani College of Medicine, University of South Florida, TEAMHealth, Tampa General Hospital, Tampa, FL

Study Objective: In 2014 we initiated a competition-based wellness program in our ED residency. While the proximate focus of this program was for individuals to lose weight, the ultimate and underlying goal was for our program to have an overall net decrease in BMI amongst participants.

Ideally, we hypothesize decreasing the mean BMI in a acts as a significant driver in improving short-term healthy behaviors and long-term health outcomes across the group.

More specifically, resident and attending participants voluntarily entered a 12-week competition ("Dr. Derr's 12-Week Challenge"). Entry required paying a fee and also submitting photographs as well as body measurements, including weight and body fat percentage, to an independent judge, outside of the program with no familiarity with the participants, using a dedicated email address. The independent judge works professionally in the fitness industry and has extensive competition experience.

Methods: Over the 12-week period, we qualitatively witnessed a culture shift amongst the ED residents with transition from fast food to protein shakes as standard dietary choices during clinical shifts. At the end of the 12-week period, we held a celebration event and awarded prizes in multiple categories. We noted that overall, there was improvement in fitness behavior across the entire program, not just amongst winning participants.

After a one-month cessation period, we restarted the 12-week challenge with an additional body physique group so that the only emphasis would not be weight loss and to avoid driving unhealthy weight loss behavior in lieu of sustainable fitness choices. The celebration event and awards banquet were held again at the end of the 12-week period. By week 25 after the initiation of our first event, fitness behaviors and body measurements associated with improved health outcomes (BMI, body fat percentage) began to show a downward trend. In addition, the number of participants increased during the second competition as we opened the competition to all ED staff at various price points for entry based on general salary considerations of job category.

Most recently, we have completed our third 12-week challenge at our institution. Many of our participants enter each contest as a way to sustain fitness gains and goals.

Results: We continue to show improvements in overall fitness attitudes and healthy body measurements.

Conclusions: The decrease in BMI and increase in fitness activities among all participants in our program, along with the increasing volume of contestants in each successive 12-week challenge reiteration, demonstrate a novel approach to corporate wellness.

244 Measures of Resident Burnout, Empathy, and Emotional Intelligence as a Function of Years in Post-Graduate Training



Smith AB, Donoghue E, Greenberg M, Quinn J, Weaver K, Barraco R, Glenn Porter B, Macfarlan J, Kane B, Jacoby JL/Lehigh Valley Health Network, Bethlehem, PA; University of South Florida Morsani College of Medicine, Tampa, FL

Study Objectives: The emotional status of medical professionals has received attention recently with concerns expressed over the alarmingly high levels of dissatisfaction and burnout, coupled with low levels on measures of empathy, particularly by the completion of post-graduate training. The purpose of this

prospective, longitudinal study was to determine whether empathy, emotional intelligence and burnout scores differ significantly in current residents; we hypothesized that measures of burnout would increase, and empathy would decrease with increasing PGY year. Females were hypothesized to demonstrate higher levels of empathy.

Methods: Three previously validated survey instruments: the Jefferson Scale of Physician Empathy (JSPE), Maslach Burnout Inventory (MBI) and the Emotional and Social Competency Inventory (ESCI), were written into a survey platform as a single 125-question survey. During June 2015, residents at our 1100 bed hospital network were emailed an explanation of the study with a link to the survey. Residents were grouped into the PGY year they had just completed. Anonymity was assured.

Results: 44/103 non-graduated residents from the fields of emergency medicine, family practice, internal medicine and OB/GYN responded for a response rate of 43%. Burnout levels did not vary significantly by PGY year for any of the three subgroups: depersonalization scores were in the moderate range for all years, emotional exhaustion scores were high (>27) for the PGY-1 year (27.5) and remained solidly in the moderate range (17-26) for PGY-2s and 3s (19.4 and 20.7), personal Accomplishment scores were high across all years, a positive finding. Positive outlook scores on the ESCI were significantly lower in the PGY-2 year than other years (PGY-1: 4.05, PGY-2: 3.45, PGY-3: 4.04; $p < .02$). Empathy for patients declined annually on the JSPE (PGY-1, 115; PGY-2, 109; PGY-3, 102; $p < 0.03$); possible scores range from 20 to 140 with higher scores indicating greater empathy. Female residents ($n=23$) had a higher score than males on the JSPE (116 versus 104; $p < 0.0008$) Females scored themselves lower than males on conflict management (3.537 versus 3.856, $p < 0.05$).

Conclusion: Residents in emergency medicine, family practice, internal medicine and OB/GYN across all years tested at a moderate to high level of emotional exhaustion on the Maslach Burnout Scale. Empathy for patients (JSPE score) was inversely related to PGY year and was higher in female residents.

245 The Impact of the TelEmergency Program on Rural Emergency Care: An Implementation Study



Sterling SA, Jones AE, King MH, Galli R, Isom K, Summers RL, Henderson K/University of Mississippi Medical Center, Jackson, MS

Study Objective: Timely, appropriate intervention is key to improving outcomes in many emergency conditions. In rural areas, it is particularly challenging to ensure quality, timely emergency care. The TelEmergency (TE) program, which utilizes a dual nurse practitioner (NP) and emergency medicine-trained, board certified physician model, has the potential to improve access to quality emergency care in rural areas.

We examine how the implementation of the TE program impacts rural hospital emergency department (ED) operations.

Methods: A before and after study of the effect of the TE program on participating rural hospitals between January '07 – December '08. Data on ED and hospital operations were collected 1 year prior to and 1 year following implementation of TE. Data from participating hospitals were combined and compared for the two time periods using descriptive statistics and paired t-tests. All tests were two sided with a p-value < 0.05 considered statistically significant.

Results: 9 hospitals met criteria for inclusion and participated in the study. Average annual ED volumes ranged from 1600 to 9800 patients (mean = 5099, SD 2384) pre-TE to 1800 to 8200 patients (mean=5039, SD 1966, p -value 0.83) post-TE initiation. ED admissions to the same rural hospital significantly increased following TE implementation (6.5% to 7.7%, p -value < 0.02); likewise, discharge rates from the ED declined post-initiation (87% to 80%, p -value = 0.01). ED deaths and transfer rates showed no significant change, while the rate of patients discharge against medical advice (AMA) significantly increased with TE use (0.3% to 1.4%, $p < 0.03$).

Conclusions: In this analysis, we found a significant increase in the rate of ED admissions to rural hospitals and discharges AMA with TE use. These findings may have important implications for the quality of emergency care in rural areas and the sustainability of rural hospitals' EDs.