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Mindfulness based stress reduction activities in advanced practice providers: A pilot quality improvement project to reduce perceived stress, burnout, and intent to leave.

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Introduction of the Problem

National burnout among health care providers is growing problem. Advanced Practice Providers (APPs) at a suburban Midwest academic center have high attrition rates and limited resources to mitigate burnout.

Literature Review

Health care professionals experience increased levels of stress and burnout due to the nature of their work (Foureur, Besley, Burton, Yu, N., and Crisp, 2013). Chronic provider burnout is costly and extends to healthcare organizations related to higher attrition, increased absenteeism, and decreased work engagement (Heckenber, Eddy, Kent, and Wright, 2018). Feelings of chronic stress and burnout lead to decreased problem solving and cognitive processing that impacts patient satisfaction and safety (Brady, O'Connor, Burgermeister, and Hason, 2012). Therefore, it is not surprising clinicians are experiencing higher rates of burnout along with rising attrition (Shanafelt et al., 2015).

There is scant literature examining burnout, workplace stress and resilience, as it pertains specifically to Nurse Practitioners and Physician Assistants (Han, Carter, & Champion, 2018, Hoff, Carabetta, & Collinson, 2019; Sorenson, Bolick, Wright, & Hamilton, 2016). Little is known about how APPs experience their work or how organizations should address perceived stress, burnout, self-care, and intent to leave among APPs. In 2019, the national turnover for Nurse Practitioners (NPs) and Physician Assistants (PAs) is 11.3% and 9.0% respectively (National Health Care Retention & RN Staffing Report, 2019). Statistically, turnover rate among

nurse practitioners and physician assistants is twice the rate for physicians, 12% and 6.8% respectively, underscoring the need to reduce APPs perceived stress and burnout (Schwartz, 2013).

The use of daily mindfulness exercises using a structured downloadable smartphone application for mindfulness-based stress reduction (MBSR) provided evidence-based wellness education and techniques to improve stress management, and positively impact APPs working at a large Midwestern academic outpatient center. The positive effects of MBRS have long term positive effects on individual self-care, perceived stress, burnout, and intent to leave the organization (White, 2013; Di Benedetto & Swadling, 2014). This pilot quality improvement investigation explored the viability of delivering a mindfulness-based intervention using mobile phone mindfulness applications, InsightTimer and Delightful Gratitude Journal

Project methods

Initiation of the project was started to investigate whether an abbreviated mindfulness intervention could decrease burnout, perceived stress, and reduce intent to leave the organization among a cohort of APPs working at a large Midwest academic center with high attrition rates. The primary goal of the project was to introduce daily mindfulness exercises using a structured smartphone application to NPs and PAs during a two-week time frame. The desired outcome of the project was to determine if there was a reduction in burnout, perceived stress, and intent to leave.

A total of 16 NPs and no PAs participated in the abbreviated smartphone mindfulness course. The project goals were evaluated with pre-and-posttest assessment tools along with a post intervention survey to a convenience sample of APPs at a single institution working in an outpatient setting. Prior to the intervention baseline turnover rates for fiscal years (FY) 2017,

2018 and 2019 were obtained. The turnover rate of 14.04% for APPs in (FY) 2017 was well above the national average. The following year FY 2018 the turnover was down to 6.7%, and as of June 2019, the turnover rate was 7.58%. In 2019, the national turnover for Nurse Practitioners (NPs) and Physician Assistants (PAs) is 11.3% and 9.0% respectively (National Health Care Retention & RN Staffing Report, 2019).

The initial talks began with the primary stakeholders in March 2019, topics included the design and implementation of the Mindfulness-Based Stress Reduction (MBSR) intervention. After the program was developed a proposal to conduct a quality improvement project was submitted to the university's Institutional Review Board and approved on June 3, 2019. The intervention utilized two mobile phone applications, Insight Timer, and Delightful Gratitude Journal. Pre-post intervention surveys utilized four standardized tools for evaluation.

The intervention was conducted over 4-weeks and was implemented on June 10, 2019 and ended July 22, 2019. Recruitment of APPs was conducted via office email invitation and participation was voluntary. The project was intended to be flexible and mobile to accommodate the providers busy work schedules. The introductory email provided participants an outline of the two-week MBSR program, links to download the mobile applications, and a power point presentation introducing the basic concept and practices of mindfulness. The daily goal of mindfulness practice for the project was 5-30 minutes per day, 7 days per week, and daily entries in the Delightful gratitude journal.

A total of 85 APPs including 70 NPs, 14 PAs and two certified nurse midwives were invited to participate. Inclusion criteria included any APP working for the Midwestern academic center. Pre-and post-surveys were sent via office email. The response rate was poor, 18.82% (n=16). Thirteen respondents (n=13) or 15.29% completed both the pre-and post-surveys.

Outcome measures for the pre-post tests were assessed using descriptive statistics. Because of the poor response rate statistical analysis was not possible. The pre-intervention survey responses indicate 56.25% of participants perceived their stress as high and 35.72% felt burnout.

Additionally, 21.43% planned to leave as soon as possible while 37.5% planned to stay.

The program was well received as reflected in the end of survey evaluation with 80% of participants strongly agreeing that the presentation improved their understanding of wellness, stress management, and the practice of mindfulness. However only 38% of participants said they were likely to assimilate the resources into daily life. In addition, participants were asked to rate the overall effectiveness of the program's impact on their lives using a 1-10 scale with 1 representing the little impact and 10 representing maximum impact. 72% (n=8) rated the program as an eight on the scale, 17% (n=3) rated the program as ten on the scale, and 11% (n=2) rated the program as six on the scale. Overall, all participants reported a positive impact on their lives and daily functioning.

Limitations

Limitations included a single site evaluation, participants were self-selected and there were no randomization or control groups, thus, repressing a sampling bias which quells generalization of the findings. The initial project started with 16 participants, however over the course of the project, three APPs were lost to follow-up as evidenced by not completing the post-test evaluation and survey. Further studies may benefit from an evaluation design that integrates a control group, and a robust sample of participants to elicit a meaningful data set to determine if patterns of change in burnout, perceived stress, and self-care are significantly different in a more controlled setting. Limiting factors included email fatigue, time of year due to vacations, and time constraints related to work and family activities during the summer months. Despite

utilizing a mobile phone application, 33% of the APPs reported difficulty finding time during their day to balance workloads and devote time to mindfulness.

The pre-survey did not ask if participants practiced mindfulness activities such as yoga or meditation to assess for bias. Furthermore, it is difficult to generalize the results because, so few articles directly relate to or address APPs specifically (McCann et al., 2013; Heckenber et al., 2018). Further studies are needed combining person-centered interventions such as daily mindfulness activities with additional organizational interventions to assess perceived stress and burnout among APPs (Janssen, Heerkens, Kuijer, Van Der Heijden, and Engels, 2018).

Recommendations for Practice

The abbreviated MBSR workplace intervention demonstrates a no-cost avenue to building a healthier, balanced workforce within the academic center. This project can be used as a guide for hospital leadership looking for new and inventive ways to engage APPs to participate in activities directed towards provider wellness. As organizations move toward a culture that focuses on holistic health and employee wellness, a program grounded in MBSR would prove a valuable tool in achieving this culture shift. Organizations should focus on the health, well-being, and retention of APPs with interventions such as MBSR programs. Although the sample size was too small to be generalizable, the project introduced a credible, low-cost method to introduce mindfulness and improve the mental and physical well-being of APPs. Future projects may benefit from assessing levels of burnout, stress, and self-care among APPs who do not participate in MBSR programs. A randomized study could potentially provide additional validation for the use of mindfulness-based programs; however, a research trial was beyond the scope of this project.

Conclusions

Addressing the problem of provider burnout is a shared responsibility of the individual clinician and the organizations in which they are employed (Shanafelt 2017b). Interventions promoting mindfulness-based stress reduction have received increased recognition as a technique encouraging intentional present-moment awareness to decrease burnout and stress among health care providers (Ireland et al., 2017; Strauss et al., 2018). When organizations value their people, there is a direct correlation to employee commitment, confidence, and engagement within the organization (Shanafelt et al 2019). From a moral-ethical perspective, having a workforce with minimal burnout and maximal professional fulfillment is desirable and the evidence in support of promoting clinician wellbeing is strong and continues to grow (Shanafelt et al 2019). Enhancing culture and reinforcing these values by supporting provider wellbeing through MBSR activities should be a key strategic move to help reduce burnout, perceived stress, and intent to leave (Shanafelt et al. 2017).

This quality improvement project supports the idea that smartphone MBSR interventions can be successfully delivered and implemented, into everyday health care culture, in a variety of ways to decrease burnout and perceived stress in APPs. Mindfulness interventions may close the gap between stress and wellbeing, diminish feelings of prolonged fatigue and lessen perceived stress in health care providers (Bergen-Cico, Possemato, & Cheon, 2013; Heckenberg et al., 2018; Lin, He, Yan, Gu, Xie, 2018).

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