



## Special Issue

# Sustainability and Outcomes of a Suicide Prevention Program for Nurses

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### Key words

nurse, depression, suicide prevention, workplace wellness, occupational health

### ABSTRACT

**Background:** We now know that nurses are at greater risk for suicide than others in the general population. It is known that job stressors are prevalent in nurses who die by suicide. Yet, little is known about targeted suicide prevention for nurses. The first nurse-centric Healer Education Assessment and Referral (HEAR) suicide prevention program was piloted for 6 months in 2016. The HEAR program was effective in identifying at-risk nurses.

**Aim:** The purpose of this paper is to report the 3-year sustainability and outcomes of this nurse suicide prevention program.

**Methods:** Descriptive statistics are provided of program outcomes over the course of 3 years.

**Results:** Over the 3 years, 527 nurses have taken advantage of the screening portion of the program. Of these, 254 (48%) were Tier 1 high risk, and 270 (51.2%) were Tier 2 moderate risk. A startling 48 (9%) had expressed thoughts of taking their own life, 51 (9.7%) had a previous suicide attempt, whereas only 79 (15%) were receiving counseling or therapy. One hundred seventy-six nurses received support from therapists electronically, over the phone, or in person; 98 nurses accepted referral for treatment. The number of group emotional debriefs rose from eight in 2016 to 15 in 2017 to 38 in fiscal year 2019. Many of the debriefs are now requested (vs. offered), demonstrating the development of a culture open to reaching out for mental health treatment.

**Linking Evidence to Action:** The initial success of this pilot program has been sustained. A nurse suicide prevention program of education, assessment, and referral is feasible, well-received, proactively identifies nurses with reported suicidality and facilitates referral for care. The HEAR program has provided service to physicians and residents for 10 years and now supports effectiveness in nurses. The HEAR program is portable and ready for replication at other institutions.

## BACKGROUND

International studies have consistently reported that nurses are at greater risk of suicide than the gender matched population (Alderson et al., 2015; Braquehais et al., 2016; Cheung et al., 2016; Milner et al., 2017; Silva et al., 2015; Suicides by occupation, England: 2011 to 2015, 2017; Tramutola, 2015). Early U.S. data suggest this also may be true in the United States (Davidson et al., 2019; Davidson, Stuck, et al., 2018).

A suicide prevention program called the Healer Education Assessment and Referral (HEAR) program, initially designed for physicians, has successfully detected physicians at risk of suicide (American Foundation for Suicide Prevention [AFSP], 2016; Downs et al., 2014; Martinez et al., 2016; Moutier et al., 2012; Norcross et al., 2018; Zisook et al., 2016). HEAR provides education about risk factors and proactive screening focused on identifying, supporting, and referring physicians for untreated depression or suicide.

HEAR has been acclaimed as a best practice in physician suicide prevention by the American Medical Association (AFSP, 2016). The physician HEAR program had been in place 7 years when we conducted a pilot to expand the program to nurses (Davidson, Zisook, et al., 2018). During the first year, 185 (7.5%) nurses completed the anonymous encrypted online screening, and 41 (22.2%) engaged in counseling online, by email, by phone, or in person. Twenty-six nurses accepted referral for continued treatment. With this success, the executive team budgeted to permanently extend the HEAR program to nurses and healthcare staff by funding two full-time therapists and a .35 psychiatrist to provide services for 17,500 employees and faculty (Davidson, Zisook, et al., 2018).

The purpose of this manuscript is to report the sustainability and outcomes of the HEAR expansion. Work vs. home stressors are explored. Modifiable work-related stressors that leaders may address to enhance clinician wellness and reduce

suicide risk are identified. Details with which to replicate this suicide prevention program for clinicians are provided.

## METHODS

A detailed description of the program can be found elsewhere (Davidson, Stuck, et al., 2018; Davidson, Zisook, et al., 2018; Moutier et al., 2012; Norcross et al., 2018). In brief, HEAR operates using a three-pronged approach: (a) Education to decrease stigma related to mental health treatment and group process debriefings after significant events, (b) proactive risk screening, and (c) bridge counseling and referral to treatment. Given that no negative outcomes were experienced during 7 years of physician use of HEAR, this project was determined to be low risk and excused from Institutional Review Board oversight (#161812). The Plan Do Study Act model of performance improvement was used to organize the project (Harolds, 2015).

Grand rounds were held only in the first year. Even though previously successful with physicians, they were poorly attended by nurses. Therefore, unit-based huddles were used to market the program. The chief nurse officer sent invitations to participate in voluntary risk screening, including an emotional plea to consider participation as a benefit aimed at optimizing self-care among healthcare professionals. In the letter, the executive recognized the burdens of working in health care and conveyed that, although the organization was an excellent place to work, clinicians are not immune to job-related stressors. Email invitations were distributed in batches of 500 nurses 2 weeks apart to optimize speedy personalized responses by the therapists. Six months later, an invitation to participate in the screening was embedded in the mandatory annual nursing update. Throughout the year, the screening was marketed at events such as the Nurses Week celebration and the annual Nursing Research Conference.

The anonymous screening portion of the HEAR program is formally called the Interactive Screening Program (ISP), developed and provided by the AFSP (2016). The ISP identifies individuals at risk for suicide through anonymous online screening via a secure website customized for the institution. Using an individualized interactive approach, a designated program therapist reviews participant questionnaires and posts a confidential response on the ISP website, which participants retrieve using their self-assigned user ID and password.

The screening contains the nine-item Patient Health Questionnaire (PHQ-9; Kroenke, Spitzer, & Williams, 2001); 17 measures of intense emotional distress (e.g., anxiety, panic, rage, hopelessness, desperation, and loss of control) linked to depression with suicidal ideation; alcohol and drug use; disordered eating behaviors; current suicidal thoughts, behaviors, and plans and past suicide attempts; and current mental health treatment (Mortali & Moutier, 2018). In year two of nursing implementation,

burnout measures derived from the Maslach Burnout Inventory were added (Bakker et al., 2002; West, Dyrbye, Sloan, & Shanafelt, 2009) after endorsement by the AFSP. An open-ended question is asked to identify stressors. Very limited demographics are collected intentionally to promote survey completion given the risk of alienating those who might be concerned about disclosing mental health issues. All questions are optional.

Once the questionnaire is submitted, it is computer-analyzed and classified into one of four tiers: Tier 1A, Tier 1B, Tier 2, and Tier 3, indicating high, moderate, or low distress (Table S1). All respondents are provided with a personalized response (Tier 1A and 1B within 24 hr, Tier 2 within 36 hr, and Tier 3 within 48 hr) and offered the option to continue to communicate anonymously via the website about available services or to connect by phone or in person to initiate counseling sessions. Counseling is provided by HEAR therapists, and referrals are given to community providers for continued treatment. This platform does not serve as crisis intervention. Participants who need immediate crisis assistance are encouraged to contact crisis resources.

## Position within the Organization

Prior to expanding to nurses, the HEAR program was operated through the School of Medicine. After expansion, the program was initially moved under Risk Management to provide opportunities to proactively identify emotionally problematic cases and offer group process debriefings. The Risk Management department notifies the HEAR team when there is a significant event that would predictably cause stress and emotion. Now that the communication flow regarding problematic cases or events has become standard operating procedure, the HEAR program has again been reorganized under the Experience Office that handles employee and patient satisfaction. The HEAR program is considered a workplace wellness intervention that contributes to employee and faculty satisfaction. A liaison with Human Resources (HR) has been appointed due to overlap with HR operations.

## RESULTS

### Quantitative Findings

Among those who completed the survey, a high incidence of burnout was reported, with the majority of nurse respondents feeling burned out and two-thirds worried about burnout (Table 1). Incidents of depression and suicidality, demographics, and mental health dimensions of respondents were reported (Table S2). Over the 3 years, use of the screening program has remained stable, with an increase in proportion of at-risk nurses accepting referral (Table 2).

Over 3 years, 41 interprofessional group emotional process debriefings were held. Additionally, 10 referrals to Employee Relations and the Office for Prevention of

**Table 1.** Burnout Among Screened Nurses

Burnout questions added January 2018			
A lot or most of the time	January 2018–June 2018 (n = 151)	July 2018–June 2019 (n = 187)	Total (n = 338)
Feeling burned out from your work	80 (53%)	105 (56.1%)	185 (54.7%)
Having become more callous toward people since you took this job	38 (25.2%)	56 (29.9%)	94 (27.8%)
Feeling emotionally drained from your work	75 (49.7%)	113 (60.4%)	188 (55.6%)
I worry about burnout a lot	108 (71.5%)	140 (74.9%)	248 (73.3%)

Harassment and Discrimination for issues related to workplace bullying and harassment were made. Individuals were also provided specific instructions on how to self-report events to the confidential compliance hotline.

### Qualitative Findings

For those who disclosed stressors, equal distribution was seen between work, home-related, and mixed home plus work-related stressors. Several work-related stressors resulted in home issues, such as relationship and marital strain, and mental health disorders, such as anxiety, depression, and sleep disturbances. Nurses reported both too much sleep and not enough sleep secondary to work stress. The stress of working two jobs was disclosed. The most common stressors reported were workload, lateral violence, staffing, inadequate resources, stress imposed by shift work, feeling unappreciated in the workplace, feeling ill-prepared for the role, and issues with management.

Nurses reported fears of harming patients, feeling as though they were not meeting patient needs, and performance anxiety. It was commonly reported that nurses experienced role strain from balancing work and family life. Stress was induced by ethical concerns of providing potentially inappropriate care. Issues with management included perceptions of bullying, incivility, lateral violence, poor performance in the management role, not providing resources, understaffing, and blame for doing a poor job. Further, participants disclosed that it was extremely stressful when understaffed, vacations and time off were denied, and managers made frequent requests for overtime. The emotional strain imposed by having to decide between working overtime vs. self-care vs. family resulted in symptomatic stress. Extreme loneliness after taking a new job or new position was reported.

## DISCUSSION

### Emotional State

Nurses' responses to the ISP mimicked or, in some cases, reflected even more stress and distress than previous results from physicians. The most impressive results were

that nurses reported higher rates of intense affective states than physicians (e.g., feelings of intense loneliness, hopelessness, desperation, and loss of control; Norcross et al., 2018). Whereas it is alarming to see the number of nurses who struggle with emotional issues, were actively suicidal, or had a suicide attempt (Table S3), it was rewarding to see that many were open to dialogue and counseling (Table 2). Though consistent positive outcomes have been achieved, there was no other nurse suicide prevention program in the literature for comparison, warranting future work in this area. The high percent of nurses reporting burnout was not surprising given the prevalence in the workforce nationally (National Academy of Medicine, 2019). Further, there is a known association between depression and burnout, and most nurses who completed screening disclosed depression and job stressors known to cause burnout (Bianchi, Schonfeld, & Laurent, 2015; Dyrbye et al., 2017).

### Anonymous and Proactive

The two elements that make the HEAR program different from a standard employee assistance program are the anonymous nature of the screening and the proactive screening and referral process. Whereas there were individuals who disclosed their identity from their initial connection, many individuals remained anonymous, worried about the potential impact on their career, reputation, or position. The anonymous aspect of the ISP encourages the initial connection where they are assured of the confidential nature of the program. Many at-risk individuals reported they would not have reached out were it not for the anonymous aspect of the questionnaire.

The program does not wait for people to seek help but instead strongly encourages screening and dialogue. Over the course of these 3 years, we identified a significant number of high-risk, suicidal nurses and connected with them easily through the simple act of sending an email. These nurses were previously insured and had access to mental health treatment, but it took a proactive approach with the assurances of anonymity to make it happen.

**Table 2.** Nurse Activity With HEAR Suicide Prevention Screening

Fiscal year	Invitations sent	Completed screening	Number dialogued	Phone	Face to face	Referrals made
2017	2,475	185	41	Not tracked	Not tracked	26
2018	3,398	155	69	12	27	32
2019	3,700	187	66	16	35	40

Note. Most participants referred had endorsed suicidality.

### Gender and Risk

The role strain reported by both nurses in this sample and previously by residents (Moutier et al., 2012; Norcross et al., 2018) could possibly be gender-related. Gender data were not collected in this nurse sample to protect the anonymity of the small proportion of males. However, we can confidently report that nearly all nurse contacts with the program therapists have been with females. In this facility, approximately 80% of nurses are female, and 55% of physicians and trainees are female. Previously it was found, with physicians and trainees in this same organization, that females had significantly higher PHQ-9 scores than males who responded to the screening (female 11.1, *SD* 5.1 vs. male 9.8, *SD* 4.7; Pospos et al., 2019). It has been reported that, in the United States, female nurses have been at greater risk of suicide than age-matched females in the general population since at least 2005 (Davidson et al., 2020) and possibly as far back as 1963 (Katz, 1983). Male nurses were found to be at significantly greater risk of suicide than their male counterparts in the general U.S. population in 2013 and 2014, and higher, but not statistically significantly so, in 2015 and 2016 (Davidson et al., 2020). It also has been reported previously that both male and female physicians were at higher risk of suicide than gender-matched others, and, as in nursing, female physicians were at higher relative risk than male physicians (Schernhammer & Colditz, 2004). More recently, though, an English study demonstrated that the risk for suicide was only higher in female physicians and nurses and not males (Snijdewind et al., 2016). In a possibly related finding, we did find in the open-ended comments that the challenge of balancing home life and parenting with career demands resulted in symptomatic stress. This stress was exacerbated by long hours, shift work, working two jobs, or being asked to work frequent overtime. More focus is needed on understanding these signals of gender-associated mental health risks when working in health care.

### Modifiable Work Stressors

The modifiable work stressors disclosed by participants have been previously reported. Lateral violence is commonly reported in the literature as a source of workplace stress (Bambi et al., 2018). Evaluations to uncover the root cause of this incivility are needed. Though commonly reported in the literature as a problem and now linked to symptomatic depression and

suicidality in nurses through this report, there are insufficient data on how to eradicate the problem (Bambi, Guazzini, De Felippis, Lucchini, & Rasero, 2017). Humans often act out when under stress, even though they might not otherwise under normal conditions (Sandi & Haller, 2015). We posit that lateral violence may best be prevented by identifying and addressing the root cause of stress in the environment. Further, the tenor of the workplace can be set by leaders. Dealing with the root cause of manager stress may go a long way toward decreasing the downstream effects. As it is true that no one comes to work to intentionally harm a patient, so too, we posit, that incivility may be a symptom of a deeper cause. Action plans solely depending upon behavioral contracts and behavioral standards may not be effective. Further research is indicated to test these ideas with interventions.

Given that many of the nurses reporting these work stressors also endorsed suicidality, the finding related to job stressors triangulates our research results from a national longitudinal review of nurse suicides in the U.S. In that study, job problems were the most common risk factor identified during postmortem investigations of nurse suicide (Davidson et al., 2020). Similar job stressors also have been reported in physician suicides (Gold, Sen, & Schwenk, 2013; Schernhammer, 2005).

Feeling alone is a risk factor for suicide (Leigh-Hunt et al., 2017). Given the common reporting from nurses moving to the area for a new job or taking a position in a new unit, efforts toward socialization for new employees are indicated and considered suicide prevention interventions.

### Debriefings

Internal marketing of the program occurs through the value-added service of conducting emotional process debriefings. Initially, these debriefings were proactively offered by the team when an emotional event was known to have occurred. Although that is still true, now clinicians or their managers reach out to request debriefings. The debriefings are interprofessional events focused on processing and validating feelings. We interpret the increase in requests as a signal of overcoming the stigma associated with reaching out for mental health care. More details about conducting the debriefings may be found elsewhere (Davidson et al., 2020, *American Nurse Today*, in press).

### Feasibility

The therapists were able to triage the increased volume of referrals using the successful technique of staggered invitations for screening. The popularity of the process debriefings is steadily increasing, and additional volunteers are needed to respond quickly to requests. Though it is impossible to measure, we continue to sense (Davidson, Zisook, et al., 2018) that these group process debriefings do more to market the program than other formal didactic programs. The program is now functioning at maximum capacity with the current personnel. An increase in therapists will be needed if referrals increase.

Unlike survey research where the goal is to achieve a high response rate, we have come to realize that those who do not need the program are less likely to respond to the survey. In distinction, many of those who are suffering recognize their distress and engage in the program. Also consistent with our preliminary pilot (Davidson, Zisook, et al., 2018), nearly all nurses who respond to the invitation are moderate or high risk, signifying that those who need help know that they are at risk. The proactive screening reaches the select group of clinicians' refractory to more passive approaches (Employee Assistance Program [EAP], insurance). We do not see the "low" response rate as a limitation but instead as an indicator of the specificity of the program reaching the intended audience without imposing burden on those not at risk.

As the program matures, employees contact the HEAR team for help outside of the routine calendared screenings and have even begun to report colleagues whom they have identified are at risk. One nurse referring a physician she had assessed as suicidal stated (paraphrased), "I would not have known to do this if I had not done the screening myself. I did not know a program existed for physicians in the past. I would not have had the courage to speak up if the chief nurse officer had not invited us to participate."

### Maintaining Therapist Health

The sustainability of a program relies heavily on the presence and well-being of its therapists. Therapists must understand their own transference, countertransference, boundaries, and needs while doing the work. This is particularly important when working with those who experience trauma or secondary trauma, as exposure can lead to burnout, compassion fatigue, or vicarious traumatization in the therapist (Barnett, 2014). It is the therapist's duty to practice self-care in order to maintain resiliency. According to Barnett (2014), self-care includes those activities we may engage in to promote our emotional, physical, relational, and spiritual wellness.

### Acting on Trends

The open-ended comments were reviewed to identify trend issues for organizational learning. The process for taking action on trends of modifiable stressors is not easy and is iteratively revised as we gain more experience. It is a delicate balance to maintain promised anonymity while transforming the information gleaned from open-ended comments

into organizational knowledge. Ignoring these trends would cause moral distress among the program team. However, program credibility would be threatened if the therapists became known as reporting those managers, faculty, and staff perceived as contributing to workplace stress. Further, the issues reported do not align to one specific arm of the organization. For instance, a physician perceived as abusive to staff would be under the purview of the chief medical officer, whereas a nurse manager accused of tolerating lateral violence by nurses would be the responsibility of the chief nurse officer. Taking the direct accountability of carving up the trends and reporting them to one executive vs. another seemed outside the scope of the program. Instead, a list of trends was curated and given privately to the chief executive officer to enact upon as seen fit.

### Proactively Reaching Out to Groups in Need

The third program year included the tenuous space of contract negotiations by several labor unions. The union activity, including strikes of both licensed and nonlicensed employees, stimulated a unique set of stressors. The HEAR team proactively predicted this stress and offered group process debriefings. Managers readily accepted the offer to process emotions generated during this time. Managers requested guidance on how to navigate the transition as teams (those who worked and those who walked) returned together after strike completion. Managers also requested facilitated debriefing regarding the traumatic stress of (a) inability to accurately predict the number of replacement staff needed, (b) not knowing if the volume of needed replacements could be obtained, and (c) the responsibility for care provided by replacement workers they did not know.

### Education

The HEAR program maintains a pool of volunteers who support the educational mission by providing in-services, lectures, and process debriefings. During the program launch, three grand rounds presentations were given specifically for nursing staff. To follow throughout the next 3 years, educational offerings have been provided regarding resiliency skills-building and other related topics. Notably, presentations regarding the HEAR program were also delivered at the 2019 American Psychiatric Association Conference, and national webinars were provided to the American Nurses Association and Association of California Nurse Leaders to stimulate replication of the program in other centers.

### Replicating the HEAR Program at Your Facility

The HEAR program is staffed by specialized therapists separately from the EAP. However, it is possible to replicate the program through other staffing arrangements. Other facilities have renegotiated EAP contracts to offer this service. Still other facilities have contracted with local or virtual mental health agencies. To learn more about options and required resources for implementing ISP at your facility, visit [afsp.org/isp](http://afsp.org/isp). Due to the risks imposed by missing those at risk,

it is advocated to use this tested program instead of attempting to create one. Table S3 presents a breakdown of needed resources to implement the program.

### Policy

Replication of the program is needed. However, given our corollary research related to nurse suicide with findings that nurses are at risk from job stressors (Davidson et al., 2020) and the preponderance of evidence surrounding stressors in the workplace (National Academy of Medicine, 2019), it is not premature to advise that action be taken toward detecting nurses at risk and prevention through workplace modifications.

### CONCLUSION

At-risk nurses respond selectively to the invitation for screening. The HEAR suicide prevention program successfully detects symptomatic nurses and transfers those in need to continued mental health treatment. The program is sustainable. Further research is needed to confirm whether the HEAR program attenuates burnout and intentions of turnover. The modifiable work stressors disclosed may be used for organizational learning with the goal of improving retention and reducing incidence of lateral violence and downstream consequences. The HEAR program is mature and ready for replication. Dissemination to other centers would enhance the overall health of the nursing workforce. **WVN**



#### LINKING EVIDENCE TO ACTION

- Identify and address work-related stressors (i.e., lateral violence, understaffing, ethical concerns) to increase staff morale, innovation, job performance, and positive patient outcomes.
- Create a suicide prevention program at your organization by contacting the American Foundation for Suicide Prevention at 212-363-3500 or emailing [info@afsp.org](mailto:info@afsp.org).
- Deal with the root causes of work stress, starting with leadership so that leaders have the emotional capacity to help others.
- Create rituals or traditions that work toward integrating and socializing new employees to increase staff connectedness and decrease loneliness.
- Have an honest conversation with those who are struggling and encourage them to seek treatment or contact their doctor or therapist. For those who are suicidal, call the National Suicide Prevention Lifeline at 800-273-8255 or text TALK to 741741 to text with a trained crisis counselor 24/7.
- Regularly debrief after significant events to create a safer, caring, destigmatized work environment.

### Disclosure

Laura A. Hoffman is employed full time by the American Foundation for Suicide Prevention.

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## SUPPORTING INFORMATION

Additional supporting information may be found in the online version of this article at the publisher's web site:

**Table S1.** Tier Designation and Level of Distress

**Table S2.** Frequencies of Nursing Staff Mental Health Dimensions (N = 527)

**Table S3.** Program Elements and Budget



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