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EMPIRICAL REPORT

The Suicide Prevention, Depression Awareness, and Clinical Engagement Program for Faculty and Residents at the University of California, Davis Health System

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Abstract
Objective The authors replicated a program developed by UC San Diego, identified medical staff at risk for depression and suicide using a confidential online survey, and studied aspects of that program for 1 year.
Methods The authors used a 35-item, online assessment of stress and depression depression developed and licensed by the American Foundation for Suicide Prevention that aims to identify and suicide risk and facilitate access to mental health services.
Results During 2013/2014, all 1864 UC Davis residents/fellows and faculty physicians received an invitation to take the survey and 158 responded (8 % response rate). Most respondents were classified at either moderate (86 [59 %]) or high risk for depression or suicide (54 [37 %]). Seventeen individuals (11 %) were referred for further evaluation or mental health treatment. Ten respondents consented to participate in the follow-up portion of the program. Five of the six who completed follow-up surveys reported symptom improvement and indicated the program should continue.
Conclusions This program has led to continued funding and a plan to repeat the Wellness Survey annually. Medical staff will be regularly reminded of its existence through educational interventions, as the institutional and professional culture gradually changes to promptly recognize and seek help for physicians' psychological distress.

Keywords Emotional problems/support · Suicide · Physician well-being

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> *Doctors, more often than not, are left alone to struggle with their suffering. Many find it hard to ask for help, to acknowledge needing it: they are trained to be independent, to be accountable for decisions that cost or save lives, and to assume an undue portion of the miseries of others.*
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> — "Kay Redfield Jamison ([1], p. 268)"

Physician well-being committees play a valuable role in monitoring the health of physicians in the institutions they serve. This is not just altruistic care for colleagues, but also benefits patients, since physicians work best when they care for themselves [2–4]. It has been estimated that in their lifetime, approximately 15 % of physicians will develop a substance abuse and/or mental health-related condition that could potentially impair their ability to practice to the best of their ability [5, 6]. Related concerns are those of physician burnout, depression, and suicide [7–13].

Physicians are at a higher risk for suicide than the general population. The rate for female physicians is markedly elevated, with a relative risk of 2.27 compared to US women in general, and that of male physicians is slightly above the US national average [10]. This equates to about 300–400 physicians dying by suicide every year [14].

Suicide risk factors include major depression or other mood disorders, substance abuse, adverse life events, access to lethal means, medical illness, family history of mental illness, age, and gender [10, 14, 15]. However, physicians rarely report these issues freely and often do not regularly see a primary care physician, which can be detrimental to their physical and mental health [16]. These behaviors, along with burnout, are embedded in the medical subculture, which encourages denial and self-reliance [17, 18], and are at least

partly learned implicitly during training [19–22]. Physicians also delay care because of the perceived stigma associated with mental illness [22].

Like other hospital well-being committees, the role of the UC Davis Medical Center Well-Being Committee (WBC) is to provide assistance to impaired medical staff members. The WBC, with membership representing a cross-section of medical and surgical specialties, has two primary roles. The first is to implement a non-punitive process for identifying, referring for treatment, and monitoring medical staff members who may be suffering from impairment resulting from drug or alcohol use or other disabling psychiatric or physical condition that poses a threat to acceptable professional functioning. The second is to educate the medical staff about issues related to impairment caused by drug or alcohol use and other disabling psychiatric or physical conditions and to facilitate the referral of impaired health professionals. The membership and policies of the Well-Being Committee (WBC) are available at www.ucdmc.ucdavis.edu/medstaffwell-being. The nature of well-being committees can vary from hospital to hospital, with some taking on a more disciplinary role. A well-being committee with a disciplinary focus would not be in the optimal position to offer a wellness program where the anonymity and voluntary nature of the program is important for implementation.

The WBC members have long been aware that there are medical staff members who have significant psychiatric or substance-related problems and are not getting treatment for their problems. The challenge lies in finding effective ways to communicate that there is a safe, non-punitive way to get treatment for substance abuse or mental health issues. Conventional approaches to reach out to physicians are lectures at grand rounds, guest speakers at lunch time forums, and a website stocked with links to literature and resources.

In 2011, the WBC decided to replicate a program being undertaken at the University of California, San Diego School of Medicine (UCSD). In 2012, Moutier et al. [23] described the first year of this screening and educational program that identified a number of medical students, residents, and faculty who met criteria for significant risk of depression and suicide. Of the 374 faculty, residents, and students who completed voluntary screening, 13 % ultimately received referrals for mental health evaluation and treatment [23]. The UCSD group concluded that their program which aimed to "increase awareness of depression and de-stigmatize help-seeking in order to prevent suicide" was well received in its first year, and while acknowledging that the prevention of suicides is difficult to measure, the authors were encouraged by the program's results. The UCSD team allowed UCDHS to replicate their program, giving full access to their tools and methodology. We extended the cross-sectional design and added a longitudinal component to see if the referred medical staff became engaged in treatment at follow-up, similar to recent work done by the UCSD group [24].

Methods

This program was designed with two objectives: first, to attempt to implement and replicate the results of Moutier et al.'s program [23] examining the effectiveness of an online screening and referral process for medical staff that need mental health or substance-related treatment. We designed our program to mirror the program of Moutier et al. [23] in all respects except that we were not able to include medical students as one of the survey groups. The second objective was to assess the effectiveness of treatment referral at 3, 6, and 9 months after initial evaluation.

The WBC secured internal funding for a part-time counselor to respond to screening questionnaires and conduct in-person assessments, as necessary. The primary counselor secured for the project was a psychologist employed part-time within the staff assistance program at UCDHS. Backup counselors were trained to provide the same functions and services as the primary counselor in her absence. Additional responsibilities included purchasing and adapting the online screening tool used by UCSD, which was developed and validated by the American Foundation for Suicide Prevention (AFSP). The online screening tool was renamed the "Wellness Survey." A webpage was developed, modeled after the original UCSD program's website, which was added to the main UCDMC Medical Staff Well-Being Committee's website (http://www.ucdmc.ucdavis.edu/medstaffwell-being/wellness_survey/). The webpage includes a description of the screening program, a link to the Wellness Survey, a discussion about confidentiality, emergency contact information, and a list of therapists and psychiatrists who agreed to provide care to UCDHS residents, fellows, and faculty.

The WBC launched the screening program in February 2013. The program was made available to all of the medical staff—faculty, residents, and fellows.

Screening Tool

The Wellness Survey is a confidential, online assessment of stress, depression, and other related concerns aimed at identifying depression and suicide risk and facilitating access to mental health services [25]. The program's 35-item screening tool, developed and licensed by the American Foundation for Suicide Prevention, includes questions from the Patient Health Questionnaire-9 (PHQ-9), a validated screening tool for depression [26], along with questions related to suicidal ideation and attempts, alcohol/drug abuse, emotions such as anger, stress, and anxiety, behaviors related to eating disorders, and current psychotherapy or psychopharmacology treatment [25]. The respondent is given an opportunity to write about any factors that may be contributing to his/her current situation. At the end of the questionnaire, information about age, gender, race, ethnicity, and staff position is requested.

Participants are able to remain completely anonymous if they wish and initially identify themselves only with a user ID that they create. At the end of the questionnaire, they are asked if they wish to provide an email address to allow for notification when the counselor has responded to their survey.

The survey is used in accord with the methodology described by Moutier et al. [23]. Once completed, the system automatically classifies the participant's responses into one of three tiers based on symptoms and suicide risk. Tier 1 is subdivided into 1A for participants who respond that they have considered suicide and 1B for those experiencing severe distress, tier 2 is for those who report experiencing mild to moderate distress, and tier 3 is for those who are not experiencing significant distress. Tier 1A and 1B are considered "high risk" for suicide and have been combined into one category for statistical purposes and to replicate the UCSD program [23]. Tier 2 participants are considered at moderate-risk and Tier 3 at low-risk.

Procedure

After the participant submits the survey, the computer system sends an email to the counselor who reviews the participant's survey responses and generates a customized response to the patient from a generic, tier-specific template. The response includes the counselor's contact information, addresses any comments mentioned in the survey, attempts to engage the respondent with questions to clarify the responses, and offers the respondent a chance to talk face-to-face, via phone, or anonymously through the site's dialogue feature. If the participant falls into one of the high-risk categories (tier 1A and 1B), crisis telephone numbers are also given.

Respondents who do not wish to provide an email address are instructed at the end of the survey to log back into the site within 24 h and check for the counselor's response. Those who give an email address are sent a link to view the response. Tier 1 or tier 2 participants who have not responded to the counselor's initial response after 1 week are sent a dialogue message on the site by the counselor again offering support. In addition to the counselor's follow-up dialogue, the website automatically generates a general response at 15 and 30 days to tier 1 and tier 2 respondents who provide an email, reminding them to view the counselor's response and to follow-up on any recommendations given.

Recruitment and Screening Phase

Residents, fellows, and faculty were invited via email by their department chairs to complete the Wellness Survey. A direct link to the survey was included in the email. Screening was conducted in 10 monthly waves of two to three departments at a time (100–300 medical staff per wave) between February and December 2013.

After obtaining feedback from the counselor, the respondent could decide what the next step should be. They could do nothing further, communicate with a counselor through the secure website (still only identified by the user ID they have created, unless they chose to identify themselves), or meet with a counselor in person.

Once a survey respondent elected to come in for an in-person assessment, the counselor described the in-person portion of the research project and obtained written informed consent to participate in the follow-up portion of this program. The consent form included provisions regarding secure email communication for the follow-up portion of the in-person assessment.

During the in-person assessment, the participant's history and symptoms were discussed, including an evaluation for depression and suicide risk factors, and treatment options were reviewed. Treatment options consisted of services on or off campus, depending upon the individual's preference and needs. Referral options included therapists and psychiatrists who accept insurance, as well as out-of-pocket payment. The counselor coordinated all referrals and met with individuals as needed for additional support and/or treatment during the transition process. Psychiatrist members of the WBC were available as backup for the counselor.

All services (evaluation, support, and referral) were available to participants whether or not they chose to participate in the follow-up research portion of the program during the in-person assessment.

Follow-up Phase

Every 3 months for a year, consenting participants were sent an email from a secure specially created email account asking them to complete a 5-min follow-up questionnaire. The questionnaire included items regarding their current feelings as compared to when they first took the survey and comments on the survey and referral process, including its usefulness, suggestions for improvement, and if the program should continue. Participants who had consented to the in-person assessment and follow-up portion of the project and did not respond were sent a total of three emails requesting completion of the follow-up questionnaire. Email communication ceased if no response was received after the third email.

SPSS was used to analyze the data, and descriptive statistics were used to report all findings. IRB approval was obtained before the Wellness Survey was utilized.

Results

Results from survey data that were collected on February 4, 2013, to February 4, 2014, are included in

this report. We followed the sampling procedures developed by Moutier et al. [23]. Residents and fellows were combined into one category for reporting results. A total of 1864 residents, fellows, and faculty were invited to complete the online Wellness Survey. Of these, 946 were resident physicians and fellows and 918 were faculty. One hundred and fifty-eight (8 %) completed the screening. Figure 1 describes who dialogued with the counselor, came in for in-person evaluations, and received referrals. Eleven people who completed screenings did not identify as either resident or faculty member, and one person identified as a medical student. Therefore, some of the data in Fig. 1, Table 1, and in the paragraphs below are based on 146 individuals, rather than 158.

Of the 146 respondents who completed the Wellness Survey, a little more than one third (54 [37 %]) met the criteria for tier 1 (high risk), the majority (86 [59 %]) met the criteria for tier 2 (moderate risk), and a small number (six [4 %]) met the criteria for tier 3 (low risk). Respondents at high or moderate risk for suicide had mean PHQ-9 scores of 10 (standard deviation [SD] 5.22) and 3 (2.59), respectively. Five (4 %) of the 140 respondents in the tier 1 and tier 2 categories had attempted suicide in the past. Even though all of the tier 1 and 2 respondents reported clinically meaningful levels of psychological distress, less than 25 % of them were currently receiving treatment (Table 1).

High-Risk Respondents

Forty-five percent of resident and fellow respondents were classified as high risk for depression and/or suicide, while 33 % of faculty respondents were classified in this category (Table 1). Among the 54 tier 1 respondents, 94 % viewed the counselor's response, 43 % engaged in online dialogue with the counselor, 17 % came for an in-person evaluation, and 20 % accepted a referral for further evaluation or treatment. All tier 1 participants who came in to see the counselor accepted referral.

Referred Respondents

In total, 17 individuals were referred for further evaluation or treatment to mental health professionals. Twelve referrals (71 %) were made during face-to-face meetings, and five accepted referral by phone or electronic communication. Nine

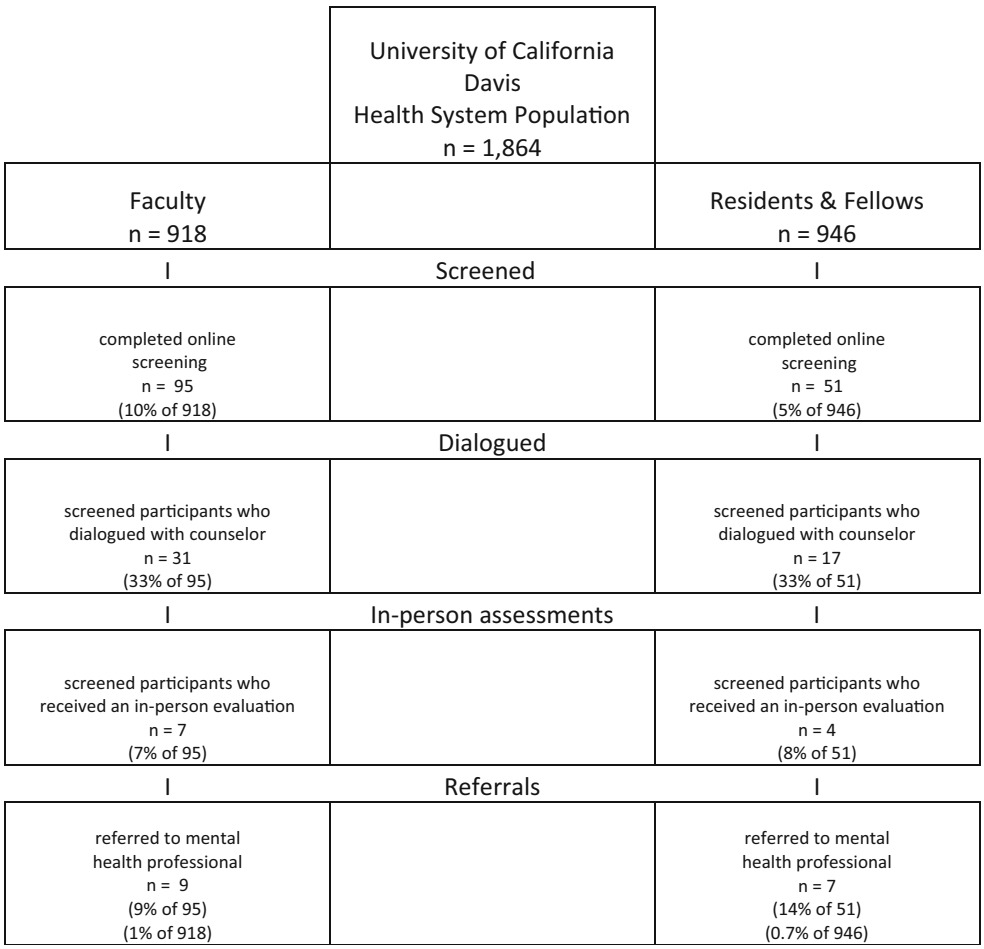

Fig. 1 Participants who were invited, completed, dialogued, were evaluated, and were referred through the University of California, Davis Health System's Wellness Survey, February 4, 2013–February 4, 2014

Table 1 Results from the Wellness Survey and referrals by tier, UC Davis Health System, February 4, 2013–February 4, 2014

Measure	Tier 1 (high risk) No. (%)	Tier 2 (moderate risk) No. (%)	Tier 3 (low risk) No. (%)
Resident and fellows	23 (45 % of 51)	28 (55 % of 51)	0
Faculty	31 (33 % of 95)	58 (61 % of 95)	6 (6 % of 95)
Total completed online screening tools	63 (40 % of 158)	89 (56 % of 158)	6 (4 % of 158)
Past suicide attempt	2 (3 % of 63)	3 (11 % of 89)	0
Currently in treatment (psychotherapy)	13 (21 % of 63)	7 (8 % of 89)	1 (17 % of 6)
Currently in treatment (psychotropic medications)	10 (16 % of 63)	4 (4 % of 89)	0
In-person evaluation by counselor (%)	9 (14 % of 63)	3 (3 % of 89)	0
Referred for further evaluation or treatment to mental health professional	12 (19 % of 63)	5 (6 % of 89)	0

participants who met with the counselor met criteria for high suicide risk, and three met criteria for moderate suicide risk. All nine of the high-risk respondents who came in for an in-person evaluation accepted referral for further mental health evaluation and treatment, and two of the three (67 %) of the moderate-risk participants who came in for an in-person evaluation accepted referral. Ten participants consented to the follow-up portion of the program. For 9 of the 10 respondents who consented to further follow-up evaluation and for whom an initial in-person evaluation report was completed, the survey may have been the catalyst to seek an appointment with a mental health professional. Specifically, five had considered seeking treatment but had not acted on it until the survey and four indicated that would not have made an appointment to meet with a mental health professional without the survey. Only one respondent reported that s/he would have sought an appointment with a mental health professional without the survey.

Outcomes from Follow-up Survey

Six out of the 10 participants who consented to further follow-up evaluation completed the follow-up survey. Three returned the questionnaire at 3 months, one returned the questionnaire at 6 months, one returned the questionnaires at 3 and 6 months, and one returned the questionnaire at 3, 6, and 9 months after the initial in-person assessment. All participants who returned the follow-up questionnaire indicated they had sought mental health treatment after the in-person assessment, and all of them indicated treatment was ongoing. Five out of the six reported improvement when compared to first taking the Wellness Survey, and all indicated the program should continue. The one respondent who did not report improvement when compared to first taking the Wellness Survey, however, commented on the 6-month follow-up survey that the program was extremely useful and could imagine a worse outcome had they not taken advantage of the resources available.

Discussion

The initial findings during our first year of replicating the UCSD physician well-being survey project are encouraging. Responses during in-person interviews with the participants who accepted referrals for ongoing treatment indicate that most of them would not have taken these steps without the prompting of the survey. Equally importantly, the majority of these individuals have reported that they have continued to receive treatment and that their mental health has improved since they were first surveyed.

Like our colleagues at UCSD, we received enthusiastic support from UCD medical leadership and administration for this project. An additional benefit of the survey is that it has highlighted the importance of physician well-being at UCDHS. Department chairs and division chiefs were extremely supportive of the project and readily signed their names to the sensitively worded emails that they sent to the physicians in their departments inviting them to participate in the survey.

It is clear from the survey data that, as expected, some physicians were struggling psychologically and that a number had denied or ignored their own needs for some time. The act of asking physicians to share their emotional experiences was generally viewed by participants as a positive mental health intervention in and of itself, and this may be a step towards destigmatizing mental health concerns among our medical staff. Faculty seem to listen when institutional leaders and role models initiate the conversation about depression, stress, burnout, suicide, and dysfunctional coping, and this underscores the fact that these are potential realities among medical practitioners.

Participants were clearly interested in the counselor's response to their survey results, and many wanted to engage in an online dialogue with the counselor about their situation and options for addressing their distress. It was a bigger challenge to get participants to come in for an actual in-person meeting. Since all of the high-risk participants who came in to meet with the counselor accepted a referral for further mental health

evaluation and treatment, future research may shed light on the factors that help motivate physicians to meet with the counselor in person versus communicating online. The screening survey did not have a primary focus on alcohol and substance abuse so it is difficult to correlate our findings with rates of these disorders, but this is something that would be helpful to include in future versions of the screening survey and future analyses.

As with the survey project at UCSD, the response rate was low. Although important data has been gathered from a small sample of our physician population, there are clearly other faculty and residents who have significant stress or psychiatric disorders with whom contact has not been made. As the majority of participants met the criteria for moderate or high risk for depression and/or suicide (96 %), one assumption is that people who are at lower risk were less likely to feel that this survey applied to them. Equally plausible explanations for non-participation include a lack of self-awareness and/or denial, anxiety or fear about exposing vulnerability, and corresponding stigma about revealing mental health concerns.

There are some methodological challenges embarking on this sort of survey initiative, particularly with respect to the relatively low response rates. In an effort to increase participation in the survey, the educational component of the program will be expanded and training on physician mental health will be included in the email invitations to participate in the survey. The WBC currently offers a variety of lectures and presentations to specific departments on well-being topics (e.g., resilience, stress management, depression and suicide, mindfulness) but has not been as systematic as our colleagues at UCSD in connecting this training to invitations to complete the Wellness Survey.

The Wellness Survey will continue to go out to each physician, resident, and fellow throughout the year, reinforcing the message that physician well-being is important and is supported by UCDHS leadership. Data will continue to be gathered to enable us to understand the specific risk factors and issues impacting the mental health of our physician population.

A few individuals who are not members of the medical staff took the survey. Typically, these were research faculty members who wished to complete the questionnaire. Medical students were not included in the first year of the survey, unlike at UCSD, but they might be added in the future. There is value in raising the issue of physician well-being early in medical training to create the understanding that there is a clear link between caring for oneself and being an effective caregiver of others—i.e., "physician, heal thyself."

In summary, the UCSD finding has been confirmed that it is possible to successfully introduce a physician wellness survey in a large academic medical center, with the dual aims of engaging physicians in care and of promoting physician wellness and health throughout the institution. It has also shown that it is possible to follow-up with physicians so engaged and that they seem to do well. The WBC is proud of this program and convinced that it has significantly enhanced the lives of a number of medical staff members and thereby, their patients, and strongly recommends widespread introduction of similar approaches to improving the health and well-being of physicians nationally.

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