

“If You Build It, They Will Come”: Attitudes of Medical Residents and Fellows About Seeking Services in a Resident Wellness Program

SYDNEY EY, PHD
MARY MOFFIT, PHD
J. MARK KINZIE, MD, PHD
DONGSEOK CHOI, PHD
DONALD E. GIRARD, MD, MACP

Abstract

Background High rates of burnout and distress in resident physicians suggest a significant number would benefit from counseling.

Intervention A resident wellness program (RWP) was designed to lower known barriers limiting resident access to services.

Methods In 2011, medical residents and fellows were surveyed and logistic regression analyses were conducted to identify demographic and training program differences in perceived barriers and willingness to access the RWP.

Results Of the 88% of trainees who knew about the RWP, 87% indicated they would be very likely or somewhat likely to seek out services. Time remained the biggest barrier for residents to getting help. Being male

(odds ratio [OR] = 0.54, 95% confidence interval [CI] 0.34–0.84) or an ethnic/racial minority (OR = 0.49, 95% CI 0.28–0.85) was associated with greater unwillingness to seek counseling. Reluctance to access the RWP was associated with concerns about helpfulness, confidentiality, being unable to take a break, and stigma. Women (OR = 1.60, 95% CI 1.06–2.42) and primary care residents (OR = 1.58, 95% CI 0.98–2.54) were more likely to be concerned about taking a break. Men were more likely to question the helpfulness of counseling (OR = 0.55, 95% CI 0.36–0.85).

Conclusions The RWP removed barriers of cost and knowledge about counseling services. More educational outreach is needed to address sex and ethnic differences about RWP utilization and attitudes in medical culture about a physician’s right to address personal health care needs.

Introduction

Much has been written about the stressors of medical training, including sleep deprivation, emotional impact of caring for critically ill patients, pressure to excel, and fear of making a mistake.^{1–4} Many residents struggle to find work-life balance and protect their emotional and physical well-being.^{5,6} With high rates of burnout, depression, anxiety, and suicide risk in medical students and residents,

this group needs access to counseling services that have been shown to be effective.^{7–9} The Accreditation Council for Graduate Medical Education requires that all residency programs provide psychological services for residents.¹⁰ Yet, concerns about confidentiality, stigma, accessibility, affordability, and questions about reporting to medical licensing boards remain barriers to physicians accessing these services.^{11–14}

In 2004, we set out to develop a resident wellness program (RWP) in an urban, Pacific Northwest university-based hospital with more than 800 residents and fellows, with the aim of reducing these barriers through educational outreach and resident-specific counseling on-site.

Individuals change health behaviors when the benefits (ie, feeling less distressed) outweigh the risks (ie, concerns about stigma, confidentiality).^{15,16} Distressed individuals are often concerned about possible risks or barriers to treatment,¹⁷ although higher education is associated with positive attitudes about counseling.¹⁸ Educational outreach in the general population, publicizing the benefits of counseling and countering perceived risks, has increased willingness to seek help.^{16,19}

To date few studies have assessed whether educational campaigns lead to changes in physicians’ attitudes and

All authors are with the Oregon Health and Science University, Portland. **Sydney Ey, PhD**, is Associate Professor; **Mary Moffit, PhD**, is Assistant Professor; **J. Mark Kinzie, MD, PhD**, is Assistant Professor and Program Director, Department of Psychiatry; **Dongseok Choi, PhD**, is Associate Professor, Department of Public Health and Preventive Medicine; and **Donald E. Girard, MD, MACP**, is Professor, Department of Internal Medicine, and Senior Consultant, Office of the Dean.

Funding: The authors report no external funding source for this study.

The authors wish to thank Kris Henning, PhD, for his editorial contributions and Kendra Seybert for her invaluable assistance in creating and launching the resident survey.

Corresponding author: Sydney Ey, PhD, Graduate Medical Education, Mail Code L579, School of Medicine, Oregon Health and Science University, 3181 SW Sam Jackson Park Road, Portland, OR 97239-3098, 503.913.5236, eys@ohsu.edu

Received February 24, 2012; revisions received November 26, 2012, and December 6, 2012; accepted December 10, 2012.

DOI: <http://dx.doi.org/10.4300/JGME-D-12-00048.1>

behaviors about seeking counseling, and under what conditions physicians are more likely to access mental health resources.^{1,11} Preventive interventions, such as stress management workshops, mindfulness meditation courses, and wellness curriculum incorporated into medical training, have been accessed by trainees and shown to have positive impact.²⁰⁻²² Individual counseling offered through resident-specific counseling services was used and rated as satisfactory by medical trainees in several academic medical centers (AMCs), but resident help-seeking attitudes were not assessed.^{23,24} A higher number of residents accessed the AMC's counseling services than an employee assistance program²⁴ and at 1 institution, residents and faculty who participated in an interactive anonymous screening of depression and suicide risk reported that personalized communication from a clinician (addressing their concerns and risk level) increased willingness to accept referrals to community-based counseling.²⁵

Improved understanding of real and perceived barriers to help seeking has implications for the development of resident wellness programs and the types of outreach efforts used to reach distressed residents. Demographic and program-level differences in help-seeking attitudes and behaviors of medical trainees have been studied. Men and ethnic/racial minority groups in the general population are less likely to seek counseling,^{9,26} while female physicians are less likely to seek care for medical or psychological symptoms owing to concerns about confidentiality or possible stigma.^{27,28} This is concerning, since female medical students and physicians report more distress than their male counterparts and are at greater risk for suicide than women in other professions.^{3,11} Ethnic or racial differences in distress and attitudes about counseling among physicians are not well researched. Younger physicians are more likely to see counseling or coaching as a valuable and socially acceptable resource toward achieving greater work-life balance and self-awareness.^{29,30} Differences in help seeking of US medical trainees, according to training year or type of medical training, are not known; primary care physicians in a European study were more likely to seek help.³¹

We evaluated whether our educational outreach efforts and development of a resident-specific counseling program were viewed as accessible and valued resources for physicians-in-training. Specific questions included: How willing were residents and fellows to seek out coaching or counseling on-site? What did trainees see as potential barriers? What trainee demographics (sex, ethnicity) and program factors (year, type of training program) were associated with greater unwillingness to seek help and specific barriers to treatment?

What was known

High rates of burnout and distress in residents suggest members of this group may benefit from counseling services.

What is new

Residents and fellows at 1 institution were surveyed to identify demographic and program differences in perceived barriers and willingness to access an on-site wellness program.

Limitations

Single-institution study; response rate may reflect respondent bias; cross-sectional design precludes determination of cause-effect relationships.

Bottom line

A wellness program reduced cost and access barriers, but time remained the biggest obstacle. More research is needed to address sex and ethnic differences, and the influence of attitude, in the use of services to address personal care needs.

Methods

Intervention

Two psychologists (0.6 full-time equivalent each) and 1 psychiatrist (0.4 full-time equivalent) experienced in working with physicians, and funded by graduate medical education, were available 5 days a week and provided after-hours telephone consultation. Services included coaching/counseling for personal or professional issues and psychiatric medication evaluation and management. Referrals to community-based providers were available. All on-site RWP services were free, unlimited, and health insurance was not billed. Providers kept separate written charts instead of using the hospital's electronic health record.

Trainees were informed that "wellness counseling" was not reportable to the state medical board. Trainees also were informed of limits to confidentiality, including imminent risk of harm to self or others or impairment/inability to provide safe patient care. If there was significant concern about trainee or patient safety, trainees would be urged to take medical leave, referred for a "fitness for duty evaluation," and the program director would be contacted. The RWP providers were not in supervisory or evaluative roles with any trainees in their care. One counselor was a program director and limited his RWP services to residents and fellows in other specialties. In outreach workshops, RWP staff directly addressed potential barriers and the benefits of counseling. Chief residents and program directors were asked to support resident access to personal health care during duty hours. Chief and senior residents became a significant source of referrals to the RWP with residents reporting, "If my chief said it helped her and urged me to come, I decided it must be okay."

Outcomes

To explore attributes of individuals and the program that represent facilitators or barriers to using the RWP, residents and fellows were e-mailed a link to an electronic survey form (SurveyMonkey.com) and informed that participation was voluntary and responses were anonymous. Two weeks later, all trainees received a reminder to complete the survey if they had not done so and thanking them if they had completed the survey. A separate link was provided to register for a lottery drawing for 1 of 3 \$300 gift certificates. Trainees were asked about knowledge of the RWP, and “If you needed counseling during residency, how likely would you be to seek services through RWP?” Responses included “not at all likely” (0), “somewhat likely” (1), and “very likely” (2). Participants were then asked, “What factors might limit your ability to access our services at RWP?” and checked all that applied (0 = not applicable, 1 = applicable). Since there is no standardized measure of perceived barriers to seeking counseling, factors described in prior studies with the general public³² and medical students and residents^{11–13,33} were the basis for these items. Items were pilot-tested with an earlier sample of residents.

The study received Institutional Review Board approval.

Analysis

Frequencies and summary statistics were conducted. For purposes of multivariate analyses, trainees who reported that they were either “not at all likely” or “somewhat likely” to seek help at the RWP were placed in the “unwilling/ambivalent” group, and trainees who indicated that they would be “very likely” to seek help at the RWP were placed in the “willing” group. Race and ethnicity were collapsed to create a dichotomous variable of White (White/Caucasian and not Hispanic) and racial/ethnic minority (African American, American Indian, Alaskan Native, Pacific Islander, Hispanic, Asian, or other). Year in training was collected as first (intern), second, third, and fourth (including fellowship), and specialty was recorded as primary care (internal medicine, family medicine, pediatrics) and specialty care (surgery, other hospital-based specialties, and fellowship). A median split was created for age (≤ 31 years and > 32 years). Chi-square tests were conducted to determine if survey participants were comparable to all residents and fellows at the institution. Logistic regression analyses were conducted to identify demographic training program differences associated with each of 5 perceived barriers (as the outcome variable). Then a second logistic regression analysis was conducted in which all perceived barriers to treatment and demographic variables were considered as predictors of unwillingness to

TABLE 1		DEMOGRAPHIC CHARACTERISTICS OF RESIDENTS AND FELLOWS SURVEYED
		Trainees Completing Current Survey, No. (%)
Sex ^a		
Female		261 (58)
Male		187 (42)
Training program ^a		
Primary care		144 (32)
Specialty care		304 (68)
Postgraduate year		
1		80 (18)
2		118 (26)
3		120 (27)
4+		132 (29)
Age, y ^a		
≤ 31		257 (57)
> 31		191 (43)
Ethnicity of participants		
White/Caucasian (not Hispanic)		329 (73.1)
More than 1 race/ethnicity/other		81 (18.1)
Hispanic/Latino		17 (3.7)
African American		3 (0.7)
Native American/Pacific Islander		9 (2)
Unknown		11 (2.4)

^a Unknown for 2 participants.

seek help (as the outcome variable). The final models were chosen by the Akaike information criterion in which nonsignificant variables were dropped, but all demographic variables were included.³⁴

Results

Of 629 eligible residents and fellows contacted, 450 completed the survey (71% response rate). Demographic and training program factors are described in TABLE 1. When compared to demographics and program factors for all residents and fellows at our institution, there was a significant age difference ($\chi^2 = 5.26, P = .02$), with survey participants more likely to be younger ($M = 29.88, SD = 3.9$) than the overall trainee population at our institution ($M = 31.25, SD = 4.2$). Subsequent analyses controlled for this age difference. No significant sex,

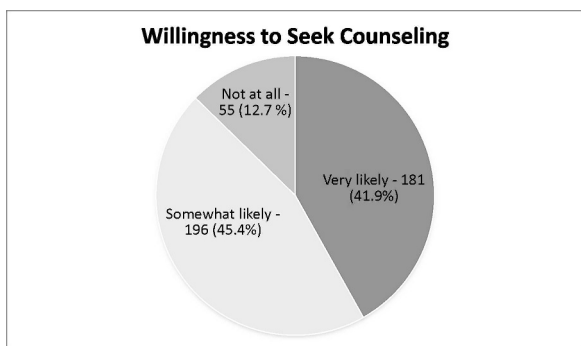


FIGURE 1 | **RESIDENT AND FELLOW (N = 432)
ATTITUDES ABOUT SEEKING COUNSELING AT
RESIDENT WELLNESS PROGRAM**

ethnicity, program type, or program year differences were seen in trainees who participated in the survey compared to trainees who did not—suggesting the data may be representative of this AMC’s population.

Most residents and fellows (88%) knew about the RWP through orientation, outreach workshops, or information provided by program directors, faculty, or fellow residents. Most residents were willing to consider counseling through this program (FIGURE 1), with 42% saying they were “very likely” and 45% being “somewhat likely.” Thirteen percent reported they were “not at all likely” to access the RWP. Time remained the biggest barrier (67%), whereas helpfulness (27%), stigma (27%), reportability (24%), and confidentiality (21%) concerns were less common (FIGURE 2).

Logistic regression analyses (TABLE 2) of perceived barriers in relation to demographic and training program factors showed women and primary care trainees were more concerned about taking a break to access counseling. Men were more likely to question the helpfulness of counseling, and racial/ethnic minorities were more concerned about confidentiality. Concern about possible stigma was unrelated to any demographic or training factors.

In the final logistic regression analysis on what predicted unwillingness to seek help, men and ethnic/racial minority trainees were more likely to be unwilling to seek help—but age, type of training program, or year were not significant factors. Trainees concerned about the RWP’s helpfulness, stigma, confidentiality, and taking a break, were more likely to be unwilling to access the RWP, but concern about reporting counseling to medical boards was not a significant barrier.

Discussion

To our knowledge, no other research has examined medical trainees’ attitudes about participating in an RWP. We

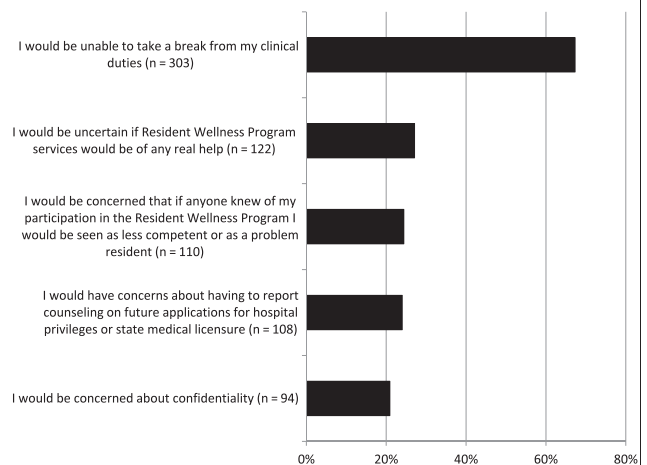


FIGURE 2 | **PERCEIVED BARRIERS TO RESIDENT
WELLNESS PROGRAM PARTICIPATION**

found encouraging signs that a resident-specific program may increase access to professional coaching/counseling during training. Most trainees knew about the RWP and were willing to consider seeking help there. Thirteen percent of the trainees in this study reported that they would be “not at all likely” to come to this counseling program—similar to the 18% of residents in another AMC who admitted that they often avoided or postponed seeking care for mental health or medical problems.³⁵ Fewer trainees appear to be endorsing the barriers to treatment reported on similar surveys of medical students^{12,13} and residents.¹⁴ Although the RWP is on-site at the AMC, most trainees appeared to be comfortable about the confidential, private nature of the services and believed that counseling could be helpful and not reportable to future medical boards. Being able to take the time to come to an RWP appointment during duty hours, however, was reported as the greatest barrier to treatment.

Demographic differences in help-seeking attitudes did emerge and may have implications for our future educational outreach efforts. Female residents and primary care residents were the most likely to express concern about lack of time to access the RWP. Female residents may hesitate to schedule personal health care meetings owing to possible stigma concerns^{27,28} or additional time constraints related to family responsibilities post call. Male trainees were more ambivalent than their female colleagues about accessing counseling and questioned the helpfulness of counseling. This finding parallels other studies in the general US population³² and of European physicians,^{31,36} showing women more likely to report distress and seek treatment although men are equally helped by counseling.⁹ Future investigation is needed to understand whether interventions,

TABLE 2	MEDICAL TRAINEES' UNWILLINGNESS TO ACCESS RESIDENT WELLNESS PROGRAM (RWP): PERCEIVED BARRIERS AND DEMOGRAPHIC AND TRAINING PROGRAM FACTORS USING LOGISTIC REGRESSION				
		Odds Ratio	P	95% Confidence Interval	
				Lower Limit	Upper Limit
Unable to take a break for appointment					
Female	1.6	.02	1.06	2.42	
Primary care	1.58	.05	0.98	2.54	
Age <32 y	1.21	.36	1.23	1.85	
White	0.81	.38	1.27	1.3	
Concern about helpfulness of RWP					
Female	0.57	.01	0.37	0.88	
Age <32 y	0.68	.10	0.42	1.1	
White	0.75	.25	0.46	1.23	
Year 2 versus year 1	1.39	.30	0.74	2.62	
Year 3 versus year 1	0.59	.13	0.3	1.18	
Year 4 versus year 1	0.57	.11	0.28	1.15	
Concern about confidentiality					
Female	1.29	.30	0.79	2.09	
Age <32 y	1.18	.50	1.27	1.91	
White	0.56	.02	1.28	0.92	
Concern about reportability to boards					
Female	1.22	.40	0.77	1.93	
Age <32 y	1.23	.38	0.77	1.96	
White	0.73	.19	0.44	1.19	
Primary care	0.62	.06	0.36	1.04	
Unwillingness to access RWP					
Female	0.54	.005	0.34	0.84	
Age <32 y	1.12	.61	0.72	1.73	
White	0.49	.009	0.28	0.85	
Unable to take break	1.65	.04	1.02	2.68	
Confidentiality concern	1.69	.06	0.97	2.95	
Helpfulness concern	5	.001	2.86	8.75	
Possible stigma concern	1.89	.02	1.11	3.21	

Note: Willingness to access, coded 0; unwilling to access, coded 1.
 Note: White/non-Hispanic, coded 1; racial/ethnic minority, coded 0.

such as professional coaching to enhance performance,³⁷ would be used more by male trainees and whether web-based resources would be more accessible to female trainees.

Racial/ethnic minority physicians-in-training reported more concerns about confidentiality and accessing coun-

seling. This finding is similar to a large body of literature suggesting that certain ethnic and racial minority groups in the United States may be more inclined to seek assistance from family and friends or medical providers.^{9,16,26} No age differences were found in willingness to access services or in

perceived barriers; it is likely there was limited age range in the residents sampled, which therefore made it difficult to detect differences. Finally, despite evidence that primary care providers may be more vulnerable to career dissatisfaction³⁸ and more open to seeking mental health treatment,³¹ primary care and specialty care trainees were equally willing to seek help at the RWP. Interns were as willing to access the RWP as more advanced trainees. Some survey respondents expressed uncertainty about whether counseling could help with residency stressors. Coaching directed at improving communication skills and creating a more sustainable pace and healthier expectations may be seen as more relevant to this cohort of physicians.

This study has several limitations, including its cross-sectional design, which precludes determination of the direction and causality of relationships. The survey used to measure willingness to access counseling and perceived barriers is not a standardized measure that can be compared statistically to previous studies of medical trainee attitudes. Finally, our results are based on a single AMC, and may not generalize to other AMCs. The response rate of 71% is a strength of this study. Other than survey respondents being slightly younger than the overall resident/fellow population at our institution, no other demographic or training program differences were found between the survey respondents and the overall population of physicians-in-training at our institution, which is comparable to other teaching settings.

Further investigation is needed to identify how to increase access to and the efficacy of physician-specific counseling services in reducing distress, burnout, and suicide risk, while promoting emotional and physical well-being. Reaching clinically distressed physicians who may be most concerned about the consequences of seeking treatment is critical. Physicians who are experiencing barriers to individual treatment may respond favorably to promising mental health resources delivered via the Internet,³⁹ mobile apps such as DBT coach,⁴⁰ and the American Foundation for Suicide Prevention Individual Screening Protocol.²⁵ These resources are anonymous, easily accessible, not reportable, and increase individuals' awareness of their distress/risk as well as offer specific coping strategies.

Conclusion

As willingness to seek help is related to actual help seeking in the general population,⁴¹ the RWP survey responses are a good indicator of future behavior. The rate of RWP utilization at our institution was 5% of trainees in 2004–2005 and 12% of trainees in 2009–2010. The design and marketing of our RWP successfully removed the barriers of cost and knowledge about the counseling services. Addi-

tional work is needed to address long-standing attitudes in medical culture that limit physicians' ability to take a break to address personal health care needs. Residents and fellows are looking to physician leaders to confirm that distress in training is not normative, and that coaching and counseling are effective and perhaps even a valid indication of enhanced professional development in the 21st century.

References

- Wallace JE, Lemaire JB, Ghali WA. Physician wellness: a missing quality indicator. *Lancet*. 2009;374(9702):1714–1721.
- Schernhammer E. Taking their own lives—the high rate of physician suicide. *N Engl J Med*. 2005;352(24):2473–2476.
- Collier VU, McCue JD, Markus A, Smith L. Stress in medical residency: status quo after a decade of reform? *Ann Intern Med*. 2002;136(5):384–390.
- Levey RE. Sources of stress for residents and recommendations for programs to assist them. *Acad Med*. 2001;76(2):142–150.
- West CP, Huschka MM, Novotny PJ, Sloan JA, Kolars JC, Habermann TM, et al. Association of perceived medical errors with resident distress and empathy: a prospective longitudinal study. *JAMA*. 2006;296(9):1071–1078.
- Prins JT, Gazendam-Donofrio SM, Tubben BJ, Van Der Heijden FMMA, Van De Wiel H, Hoekstra-Weebers JEHM. Burnout in medical residents: a review. *Med Educ*. 2007;41(8):788–800.
- Schwartz AJ. College student suicide in the United States: 1990–1991 through 2003–2004. *J Am Coll Health*. 2006;54(6):341–352.
- Brown GK, Ten Have T, Henriques GR, Xie SX, Hollander JE, Beck AT. Cognitive therapy for the prevention of suicide attempts. *JAMA*. 2005;294(5):563–570.
- Lambert MJ. *Bergin and Garfield's Handbook of Psychotherapy and Behavior Change*. Hoboken, NJ: John Wiley & Sons; 2004.
- Accreditation Council for Graduate Medical Education. ACGME institutional requirements. http://www.acgme.org/acgmeweb/Portals/0/irc_IRCpro7012007.pdf. Updated 2007. Accessed November 4, 2012.
- Center C, Davis M, Detre T, Ford DE, Hansbrough W, Hendin H, et al. Confronting depression and suicide in physicians: a consensus statement. *JAMA*. 2003;289(23):3161–3166.
- Schwenk TL, Davis L, Wimsatt LA. Depression, stigma, and suicidal ideation in medical students. *JAMA*. 2010;304(11):1181–1190.
- Givens JL, Tjia J. Depressed medical students' use of mental health services and barriers to use. *Acad Med*. 2002;77(9):918–921.
- Guille C, Speller H, Laff R, Epperson CN, Sen S. Utilization and barriers to mental health services among depressed medical interns: a prospective multisite study. *J Grad Med Educ*. 2010;2(2):210–214.
- Prochaska JO, DiClemente CC, Norcross JC. In search of how people change: applications to addictive behaviors. *Am Psychol*. 1992;47(9):1102–1114.
- Vogel DL, Wester SR, Larson LM. Avoidance of counseling: psychological factors that inhibit seeking help. *J Couns Dev*. 2007;85(4):410–422.
- Kushner MG, Sher KJ. Fear of psychological treatment and its relation to mental health service avoidance. *Prof Psychol Res Pract*. 1989;20(4):251.
- Vessey JT, Howard KI. Who seeks psychotherapy? *Psychother Theory Res Pract Train*. 1993;30(4):546.
- López SR, Barrio C, Kopelowicz A, Vega WA. From documenting to eliminating disparities in mental health care for Latinos. *Am Psychol*. 2012;67(7):511–523.
- Shapiro SL, Shapiro DE, Schwartz GER. Stress management in medical education: a review of the literature. *Acad Med*. 2000;75(7):748–759.
- Finkelstein C, Brownstein A, Scott C, Lan YL. Anxiety and stress reduction in medical education: an intervention. *Med Educ*. 2007;41(3):258–264.
- Eckleberry-Hunt J, Van Dyke A, Lick D, Tucciarone J. Changing the conversation from burnout to wellness: physician well-being in residency training programs. *J Grad Med Educ*. 2009;1(2):225–230.
- Dabrow S, Russell S, Ackley K, Anderson E, Fabri PJ. Combating the stress of residency: one school's approach. *Acad Med*. 2006;81(5):436–439.
- Pitt E, Rosenthal MM, Gay TL, Lewton E. Mental health services for residents: more important than ever. *Acad Med*. 2004;79(9):840–844.
- Moutier C, Norcross W, Jong P, Norman M, Kirby B, McGuire T, et al. The suicide prevention and depression awareness program at the University of California, San Diego School of Medicine. *Acad Med*. 2012;87(3):320–326.

- 26 Satcher D. *Mental Health: Culture, Race, and Ethnicity: A Supplement to Mental Health—A Report of the Surgeon General*. Washington, DC: US Department of Healthy and Human Services; 2001.
- 27 Dunn LB, Moutier C, Green Hammond KA, Lehrmann J, Weiss Roberts L. Personal health care of residents: preferences for care outside of the training institution. *Acad Psychiatry*. 2008;32(1):20–30.
- 28 Moutier C, Cornette M, Lehrmann J, Geppert C, Tsao C, DeBoard R, et al. When residents need health care: stigma of the patient role. *Acad Psychiatry*. 2009;33(6):431–441.
- 29 Gilhooly J, Gilhooly J. Educational perspectives generational synchronicity: improving the medical work environment. *NeoReviews*. 2009;10(6):e265–e269.
- 30 Smith LG. Medical professionalism and the generation gap. *Am J Med*. 2005;118(4):439–442.
- 31 Rø KE, Gude T, Aasland O. Does a self-referral counselling program reach doctors in need of help: a comparison with the general Norwegian doctor workforce. *BMC Public Health*. 2007;7(1):36.
- 32 Stefl ME, Prospero DC. Barriers to mental health service utilization. *Community Ment Health J*. 1985;21(3):167–178.
- 33 Ey S, Henning KR, Shaw DL. Attitudes and factors related to seeking mental health treatment among medical and dental students. *J Coll Stud Psychother*. 2000;14(3):23–39.
- 34 Akaike H. A new look at the statistical model identification. *IEEE Trans Automatic Control*. 1974;19(6):716–723.
- 35 Dunn LB, Green Hammond KA, Roberts LW. Delaying care, avoiding stigma: residents' attitudes toward obtaining personal health care. *Acad Med*. 2009;84(2):242–250.
- 36 Oliver MI, Pearson N, Coe N, Gunnell D. Help-seeking behaviour in men and women with common mental health problems: cross-sectional study. *Br J Psychiatry*. 2005;186(4):297–301.
- 37 Gawande A. Personal best. *The New Yorker*. 2011:3.
- 38 Girard DE, Choi D, Dickey J, Dickerson D, Bloom JD. A comparison study of career satisfaction and emotional states between primary care and speciality residents. *Med Educ*. 2006;40(1):79–86.
- 39 Amstadter AB, Broman-Fulks J, Zinzow H, Ruggiero KJ, Cercone J. Internet-based interventions for traumatic stress-related mental health problems: a review and suggestion for future research. *Clin Psychol Rev*. 2009;29(5):410–420.
- 40 Rizvi SL, Dimeff LA, Skutch J, Carroll D, Linehan MM. A pilot study of the DBT coach: an interactive mobile phone application for individuals with borderline personality disorder and substance use disorder. *Behav Ther*. 2011;42(4):589–600.
- 41 Dearing RL, Maddux JE, Tangney JP. Predictors of psychological help seeking in clinical and counseling psychology graduate students. *Prof Psychol Res Pract*. 2005;36(3):323.