

Teaching Residents and Program Directors About Physician Impairment

Karen E. Broquet, M.D.
Paul H. Rockey, M.D., M.P.H.

Objective: Residents are at a higher risk than the general population for the development of stress-related problems, depression, or suicide. The authors describe a curriculum for educating PGY-1s and residency program directors about physician impairment. **Methods:** A resident wellness program was established with the goals of preventing resident suicide, encouraging acceptance of treatment where appropriate, preventing self-prescribing, and aiding in stress management. **Results:** The curriculum was rated highly by residents in the areas of program content and usefulness. **Conclusions:** Residents are receptive to education on physician impairment. Institutional support is necessary for effectively addressing these concerns with trainees. (*Academic Psychiatry* 2004; 28:221–225)

Stress, depression, and substance abuse in training can have multiple consequences, including reduced attention and decision-making skills, increased cynicism (1), impairment, or suicide. Impairment is a physical or mental condition that causes a resident or fellow to be unable to practice medicine with reasonable care and safety commensurate with his or her level of training. Physicians in residency training are at higher risk than the general population for developing stress related or mental health problems. The 12-month prevalence of depression in the general population is 7.7% for men and 12.9% for women (2). In the 1970s and 1980s, 27%–30% of PGY-1s were noted to be depressed (3, 4). Chronic sleep deprivation may be a contributor (5). Although work hours are now limited and programs are required to monitor resident stress (6), there is little evidence indicating that resident stress levels are declining. In a 2002 survey of internal medicine trainees, 40% of female residents and 32% of male residents reported four or five symptoms of depression (1).

Although the boundaries between stress-related states and psychiatric illness are often blurred, chronic stress increases the risk of affective illness, and depression and substance abuse are highly cor-

related with impairment. In one series of impaired physicians, 92% had a psychiatric or substance use disorder (7). The rates of substance abuse in physicians (7%–15%) are similar to the general population (8). The most common drug of abuse is alcohol, followed by opiates (8, 9). A 1991 survey of substance use among 3rd-year residents reported higher rates of alcohol and benzodiazepine use than the general population, with 9.5% reporting unsupervised use of benzodiazepines. The use of opiates and benzodiazepines correlated with the advent of controlled substance prescribing privileges (10, 11).

Numerous studies have examined physician suicide rates in Europe and North America (12–17). United States studies have generally found the suicide rate for both male and female physicians to be similar to that of age-matched male controls but significantly higher than female controls. Lindeman et

Dr. Broquet is Associate Professor at Southern Illinois University School of Medicine, Springfield, Illinois. Dr. Rockey is with the Division of Medical Education Liaison and Outreach at the American Medical Association, Chicago, Illinois. Address correspondence to Dr. Broquet, Southern Illinois University School of Medicine, Office of Residency Affairs, P.O. Box 19656, Springfield, IL 62794-9656; kbroquet@siumed.edu (E-mail).

Copyright © 2004 Academic Psychiatry.

al. reviewed the methodologically sound, population-based studies of physician suicide (18). The crude suicide mortality rate was the same in male and female doctors. Men had an estimated relative risk of 1.1 to 3.4 when compared to the general population and 1.5 to 3.8 when compared to other professionals. Relative risk for women was 2.5 to 5.7 when compared with the general population and 3.7 to 4.5 when compared with other professionals. Younger age of completed suicide for female physicians as compared to the female population and male physicians has been noted (12, 19). Multiple factors contribute to physician suicide risk, including mental illness, access to lethal medications, knowledge of lethal doses, losses, and psychosocial stresses. Depression and substance abuse are two of the strongest predictors for physician suicide. The efficacy of treatment for depression and substance abuse has been demonstrated in numerous studies (20), and treatment of depression may be associated with improved work productivity (21). More importantly, treatment of depression has been correlated with a reduction in suicide (22).

The Accreditation Council for Graduate Medical Education (ACGME) requires that programs monitor resident stress and states, "institutions should provide an educational program for residents regarding physician impairment, including substance abuse" (6). There are numerous accounts in the literature of the scope of the problem of physician impairment (7, 8, 23–25) and approaches to helping individual residents (26–28). However, little information is available in the literature regarding effective ways to educate residents about impairment.

Shapiro et al. (29) reviewed the literature on stress management in medical education in 2000. Six of the 24 studies identified utilized rigorous outcome criteria. Five of these demonstrated benefits, including reduction in subjective distress/anxiety, improved health measures, improved immunologic function, improved coping skills, and increased knowledge about stress. No consistent patterns were noted to identify an optimal content or duration of intervention. The structure of the interventions varied among studies, although all used a group format. Content included training in mindfulness or meditation; hypnosis; education on stress and relaxation; group discussions on role expectation, interpersonal relationships, or problem solving; and a social group. All

were oriented toward managing stress and improving coping skills. No studies have addressed interventions to prevent resident physician impairment.

METHOD

In 2001, Southern Illinois University implemented a series of steps (Appendix 1) to educate its residents and program directors about resident stress and impairment. Our goals were: 1) to prevent resident suicide, 2) to encourage residents to seek or accept mental health assistance if needed, 3) to prevent inappropriate prescribing by residents (i.e. self-prescribing), and 4) to aid residents in managing stress. A specific curriculum for PGY-1 residents is described in this article. In addition, program directors and chief residents were targeted to receive training in early recognition of residents at risk for impairment, and resident members of the house staff organization were enlisted as peer counselors.

In the absence of any consensus in the literature regarding length or structure of impairment education, we opted for a single, ½-day training. The course, entitled Survival Skills for Interns, is required for all PGY-1 residents, and has been delivered in either July or September for the past 3 years. The organization and content of the course are outlined in Appendix 1. We emphasize that stress and impairment are not synonymous. Wellness, stress, burnout, physical or mental illness, substance abuse, and impairment are described as possible points on a functional continuum. The importance of a personal or family history of depression or substance abuse as a risk factor is stressed, and residents are encouraged to seek help if needed. The videos contain interviews with physicians who experience depression or substance abuse.

RESULTS

Resident ratings of the course are listed in Table 1. Ratings for all 3 years are combined. The information was determined to be exempt from review by the school's institutional review board. Since our evaluations are confidential, we do not have data on whether variables such as gender, specialty, or country of origin might influence how the course is viewed. Overall, the course has been well received. Of those residents who turned in an evaluation, 95% rated the sections on resident stress and impairment

as "good" or "excellent," and 92% found them "useful" or "very useful." Eighty two percent have found the stress management techniques to be "useful" or "very useful." The vast majority of comments have been positive. The few negative comments describe the strains that residents experience:

"I know how to de-stress myself, I am not allowed the *time* to do it, and honestly feel that the residents and attendings above me DON'T CARE about what I'm going through. . . . Instead of putting the responsibility on us to learn to deal with the unreasonable demands of the job, come up with some ways of fixing the problem."

"It is the work hours that cause stress . . . no attempts are made to reduce this."

"Giving us suggestions for managing stress is treating the symptom instead of the problem: our work environment and requirements . . . number of hours worked."

Objective follow-up data on the impact of any intervention is difficult to obtain. Because we wanted to reach all PGY-1 residents, we did not have a control group that was unexposed to the course. Residents were sent a follow-up survey in July of their PGY-2 year. The response rate was 70% for those who took the course in 2001 and 45% for those who took the course in 2002. Of those respondents who attended the course (48 residents), 62% felt the seminar provided useful information in coping with the stresses of the PGY-1 year. Twenty nine percent had no opinion, and 8% rated it "not useful."

DISCUSSION

Will this course help the institution meet its goal of preventing resident suicide? A single institution will likely be unable to demonstrate this objectively, as,

thankfully, suicide is a rare event. However, one of our goals is to create an atmosphere in which seeking or receiving help is viewed as acceptable. Because of confidentiality concerns, we have chosen not to track usage of mental health or substance abuse treatment. At 1-year follow-up, 47% of residents who took the course in 2001 and 62% who took the course in 2002 felt comfortable seeking mental health treatment. Unfortunately, we did not ask this question of them prior to the course. Residents who took the course in 2003 were asked the same question on a pretest instrument. Fifty percent stated they would feel comfortable seeking mental health treatment. We do not have posttest information from this class as of yet. We cannot infer that this is the starting point of acceptance for the prior groups. It may well be an indication of increased acceptance of mental health treatment in the culture of our institution, as the program directors and senior residents supervising the PGY-1 class in this study have been exposed to the Survival Skills for Interns course and have participated in yearly discussions of resident wellness and impairment. For future classes, attitudes regarding treatment and self-report information on treatment and self-prescribing will be assessed pre- and postcourse.

A visible level of institutional support for a course such as this is invaluable. It has a high degree of support from our program directors. The direct involvement of the Graduate Medical Education Committee chairperson and willingness of program directors to release trainees from clinical duties sends all PGY-1 residents a clear message of the materials' importance. Indeed, one resident commented:

"I think it was necessary to make this mandatory like it was. Otherwise it would be difficult to ask for time off to attend . . . without seeming like a wimp."

TABLE 1. Resident Feedback of Survival Skills for Interns Course^a

Question	Rating			
	Excellent	Good	Fair/Poor	No Response
In general, how did you rate this course?				
Physician Stress and Impairment	50%	45%	3%	2%
Video and Discussion	35%	59%	6%	3%
Stress Management Techniques	39%	41%	8%	12%
How useful will this information be to you?	Very Useful	Useful	Not Useful	No Response
Physician Stress and Impairment	41%	51%	4%	2%
Video and Discussion	31%	51%	15%	3%
Stress Management Techniques	40%	42%	10%	8%

^aN = 155 participants over 3 years, 91% response rate.

APPENDIX 1. Resident Wellness and Impairment Prevention Plan and Course Content for Survival Skills for Interns**Resident Wellness and Impairment Prevention Plan**

½ day course for PGY 1s (yearly)

½ day program on physician burnout/impairment for program directors and chief residents – one time

Education for program directors/graduate medical education committee members on recognition of impairment (yearly)

Identification of peer counselors

Education and advocacy regarding access to treatment

Survival Skills for Interns: Course Content

1. Introductions
2. Group discussion of current stress levels and coping skills
3. Didactic presentation covering:
 - Risk factors for physician stress/burnout
 - Physician impairment (definition and behavioral signs)
 - Epidemiology of substance abuse, depression, and impairment in physicians
 - Basic principles of stress management
 - Where to go for help if needed
 - Implications of mental health/substance abuse treatment on licensure
4. Video presentation and discussion
5. Brief overview of mindfulness techniques and training in progressive relaxation

References

1. Collier VU: Stress in medical residency: status quo after a decade of reform? *Ann Intern Med* 2002; 136:384–396
2. Kessler RC, McGonagle KA, Zhao S, Nelson CB, Hughes M, Eshleman S, Wittchen HU, Kendler K: Lifetime and 12-month prevalence of DSM-III-R psychiatric disorders in the United States: results from the National Comorbidity Survey. *Arch Gen Psychiatry* 1994; 51:8–19
3. Valko RJ, Clayton PJ: Depression in the internship. *Dis Nerv Syst* 1975; 36:26–29
4. Clark DC, Salazar-Gruesco E, Grabler P, Fawcett J: Predictors of depression during the first 6 months of internship. *Am J Psychiatry* 1984; 141:1095–1098
5. Friedman R, Kornfeld D, Bigger T: Psychological problems associated with sleep deprivation in interns. *J Med Educ* 1973; 48:436–441
6. Accreditation Council for Graduate Medical Education: Common Program Requirements, Section III B 5; Institutional Requirements, Section II C 9
7. Wijesinghe C: Impaired practitioners notified to the Medical Practitioners Board of Victoria from 1983 to 1997. *Med J Aust* 1999; 171:414–417
8. Yarborough W: Substance use disorders in physician training programs. *J Oklahoma State Med Assoc* 1999; 92:504–507
9. McGovern M: Characteristics of physicians presenting for assessment at a behavioral health center. *J Addict Dis* 2000; 19:59–73
10. Hughes PH, Conrad SE, Baldwin DC: Resident physician substance abuse in the United States. *JAMA* 1991; 265:2069–2073
11. Hughes PH, Baldwin DC, Sheehan DV, Conard S, Storr CL: Resident physician substance use, by specialty. *Am J Psychiatry* 1992; 149:1348–1354
12. Steppacher RC, Mausner JS: Suicide in male and female physicians. *JAMA* 1974; 228:323–328
13. Pitts FN, Schuller AB, Rich CL, Pitts AF: Suicide among US women physicians, 1967–1972. *Am J Psychiatry* 1979; 136:694–696
14. Hawton K, Clements A, Sakarovitch A, Simkin S, Deek JJ: Suicide in doctors: a study of risk according to gender, seniority and specialty in medical practitioners in England and Wales, 1979–1995. *J Epidemiol Community Health* 2001; 55:296–300
15. Frank E, Dingle A: Self-reported depression and suicide attempts among US women physicians. *Am J Psychiatry* 1999; 156:1887–1894
16. Arnetz B, Horte L, Hedberg A, Theorell T, Allander E, Malmer H: Suicide patterns among physicians related to other academics as well as to the general population: results from a national long-term prospective study and a retrospective study. *Acta Psychiatr Scand* 1987; 75:139–143
17. Carpenter L, Swerdlow A, Fear N: Mortality of doctors in different specialties: findings from a cohort of 20,000 NHS hospital consultants. *Occup and Environ Med* 1997; 54:388–395
18. Lindeman S, Esa L, Hakko H, Lonnqvist J: A systematic review on gender-specific suicide mortality in medical doctors. *Br J Psychiatry* 1996; 168:274–279
19. Hawton K, Clements A, Simkin S, Malmberg A: Doctors who kill themselves: a study of the methods used for suicide. *Q J Med* 2000; 93:351–357
20. Schulberg HC, Katon W, Simon G, Rush J: Treating major depression in primary care practice: an update of the Agency for Health Care Policy and Research Practice Guidelines. *Arch Gen Psychiatry* 1998; 55:1121–1127
21. Simon GE, Barber C, Birnbaum HG, Frank R, Greenberg PE, Rose RM, Wang PS, Kessler RC: Depression and work productivity: the comparative costs of treatment versus non-treatment. *J Occup Environ Med* 2001; 43:2–9
22. Rihmer Z, Rutz W, Pihlgren H: Depression and suicide on Gotland: an intensive study of all suicides before and after a depression-training programme for general practitioners. *J Affect Disord* 1995; 35:147–152
23. Yao DC, Wright S: The challenge of problem residents. *J Gen Intern Med* 2001; 16:486–492

24. Smith JW, Denny WF, Witzke DW: Emotional impairment in internal medicine housestaff: results of a national survey. *JAMA* 1986; 255:1155–1158
25. Center C, Davis M, Detre T, Ford DE, Hansbrough W, Hendin H, Laszlo J, Litts DA, Mann J, Mansky PA, Michels R, Miles S, Proujansky R, Reynolds CF, Silverman MM: Confronting depression and suicide in physicians, a consensus statement. *JAMA* 2003; 289:3161–3166
26. Borenstein DB, Cook K: Impairment prevention in the training years: a new mental health program at UCLA. *JAMA* 1982; 247:2700–2703
27. Borus J: Recognizing and managing residents' problems and problem residents. *Acad Radiol* 1997; 4:527–533
28. Winter RO, Binberg B: Working with impaired residents: trials, tribulations and successes. *Fam Med* 2002; 34:190–196
29. Shapiro SL, Shapiro DE, Schwartz GE: Stress management in medical education: a review of the literature. *Acad Med* 2000; 75:748–759