General Hospital Psychiatry 36 (2014) 732–736

Contents lists available at ScienceDirect

General Hospital Psychiatry

journal homepage: http://www.ghpjournal.com

Suicidal behavior among physicians referred for fitness-for-duty evaluation☆,☆☆,★

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ARTICLE INFO

Article history:
Received 19 February 2014
Revised 19 June 2014
Accepted 23 June 2014

Keywords:
Physician suicide
Fitness for duty
Fit to practice
Solo practice
Benzodiazepine

ABSTRACT

Objective: We compared fitness-for-duty assessment findings of physicians who subsequently engaged in suicidal behavior and those who did not.
Method: Assessments of 141 physicians evaluated at the Vanderbilt Comprehensive Assessment Program were retrospectively compared between those who later either attempted (n=2) or completed (n=5) suicide versus the remainder of the sample.
Results: Subsequent suicidal behaviors were associated with being found unfit to practice (86% vs. 31%, P<.05), being in solo practice (71% vs. 33%) and chronically using benzodiazepines (57% vs. 11%, Fisher's Exact Test, P<.05).
Conclusion: Being found unfit for practice may trigger a cascade of adverse social and financial consequences. Those engaged in solo practice may be particularly vulnerable due to isolation and lack of oversight by supportive colleagues. Finally, chronic benzodiazepine use may impair resilience due to associated brain dysfunction. Although these characteristics must be investigated prospectively, our observations suggest that they may be important signals of increased risk for suicidal behavior in physicians. The intense stress associated with medical practice and the relatively high rates of suicidal behavior among physicians make it important to be able to identify physicians who are at risk, so that appropriate preventive actions can be taken.

1. Introduction

> *"The problem of physician suicide is not solely a matter of whether or not it takes place at a rate higher than the general public. That a professional caregiver can fall ill and not receive adequate care and support, despite being surrounded by other caregivers, begs for a thoughtful assessment to determine why it happens at all."*
> [*Legha (2012)*]

Decades ago, when physicians were unrealistically idealized as strong and invincible, it was suggested [1] that those who died by suicide may have been unsuited to medical practice. Since the 1970s, as Legha has described, a more humanistic emphasis is evolving that acknowledges those ideals as unrealistic, recognizes the vulnerabilities of medical practitioners and promotes wellness as prevention. Rates of suicide among male physicians are modestly higher and suicide rates for female physicians are much higher than among the general population [2]. Knowledge about and access to effective suicide methods may explain the higher rates among doctors [3]. Although there is now evidence [4–8] that appropriate treatment for substance use disorders in physicians often results in return to safe and successful practice, little data exist on the identification of physicians at risk for suicide.

We report here on a retrospective analysis of subsequent suicide attempts and completions among physicians who participated in a fitness-for-duty (FFD) assessment at the Vanderbilt Comprehensive Assessment Program (VCAP). All of these physicians were referred by the Tennessee Medical Foundation (TMF) due to concern about a variety of behavioral health issues that adversely affected safe clinical practice. TMF, the state physician health program, provided access to long-term outcome and clinical practice behaviors of the physicians we evaluated.

2. Method

This study was approved by the institutional review board of Vanderbilt University, which mandates that clinical data be appropriately de-identified for confidentiality.

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☆☆ This study was approved (IRB#08060 and IRB#060459) by the institutional review board of Vanderbilt University.
★ The project (publication) described was supported by Clinical and Translational Science Awards award No. UL1TR000445 from the National Center for Advancing Translational Sciences. Its contents are solely the responsibility of the authors and do not necessarily represent official views of the National Center for Advancing Translational Sciences or the National Institutes of Health.
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http://dx.doi.org/10.1016/j.genhosppsych.2014.06.008
0163-8343/

Table 1
Primary reason for referral

	Total (*N*=141)	No attempt (*N*=134)	Attempt (*N*=7)	*P* value
	N (%)	*N* (%)	*N* (%)	
Primary reason for referral				*.012*
Disruptive behavior[a]	51 (36.2)	51 (38.1)	0 (0.0)	
Sexual boundary issues	36 (25.5)	34 (25.4)	2 (28.6)	
Substance use disorder	24 (17.0)	24 (17.9)	0 (0.0)	
Mental health[a]	25 (17.7)	21 (15.7)	4 (57.1)	
Other	5 (3.5)	4 (3.0)	1 (14.3)	

[a] Post hoc statistically significant differences Fisher's exact test; Bonferroni-adjusted, $P<.05$.

Using a standardized assessment protocol that follows the American Psychiatric Association guidelines [9], VCAP has evaluated over 500 physicians from 39 of the United States and 4 Canadian provinces since 2001. Of these, we had access to follow-up information on 141 physicians, evaluated between 2001 and 2009, who were referred to VCAP and subsequently followed by the TMF.

Each physician referral for FFD is empirically placed into one of five following categories based upon information received from referral sources prior to evaluation: (1) Disruptive Behavior (e.g., demeaning or intimidating others); (2) Sexual Boundary Violation (e.g., inappropriate sexual touching); (3) Substance Use Issues; (4) Mental Health Issues; (5) other or undetermined reason.

The clinical and psychological testing methods employed in VCAP FFD evaluations have been previously described in detail [10]. Briefly, data from the comprehensive evaluations consist of demographics, historical findings, consensus diagnosis, psychological testing results, treatment recommendations and fitness to practice determinations. With the exception of age, all of the demographic, historical diagnosis and recommendation variables in this report were nominal in nature. Therefore, frequency distributions (counts, %) were used to summarize those data. chi-Square tests with a Fisher's exact test supplement for small cell sizes were used to compare the group of physicians engaging in suicidal acts versus the remainder of the physicians in our sample. Continuous data (e.g., age) were summarized using means and standard deviations for the normally distributed large samples; median with minimum and maximum values summarized the small group for suicide attempters. Mann–Whitney tests were used for those group comparisons. In general, an uncorrected alpha of 0.05 ($P<.05$) was used for each of the group comparisons. If group comparisons consisted of more than two categories (e.g., primary reason for referral) and the overall test was statistically significant, a Bonferroni-corrected alpha was used for post hoc tests conducted to determine specifically which of the categories differed between the two groups. We caution readers that our low base rate of suicide behavior in combination with the many comparisons conducted for this report creates significant risk for type I error, but we feel that this risk is warranted to posit variables for further research scrutiny in relation to physician suicide.

Table 2
Demographic and practice variables

	Total (*N*=141)	No attempt (*N*=134)	Attempt (*N*=7)
	Mean (S.D.)	Mean (S.D.)	Median (min−max)
Age (years)	48.7 (9.3)	48.7 (9.5)	51.0 (37–59)
	N (%)	**N (%)**	**N (%)**
Age interval			
<35 years	7 (5.0)	7 (5.2)	0 (0.0)
35–44 years	37 (26.2)	36 (26.9)	1 (14.3)
45–54 years	62 (44.0)	57 (42.5)	5 (71.4)
55–64 years	29 (20.6)	28 (20.9)	1 (14.3)
≥65 years	6 (4.3)	6 (4.5)	0 (0.0)
Male	128 (90.8)	123 (91.8)	5 (71.4)
White	124 (87.9)	118 (88.1)	6 (85.7)
Married	97 (68.8)	92 (68.7)	5 (71.4)
N	*135*	*128*	*7*
Trained in US	120 (88.9)	114 (89.1)	6 (85.7)
N	*128*	*121*	*7*
Solo practice[a]	42 (32.8)	37 (30.6)	5 (71.4)

[a] Statistically significant difference Fisher's exact test, $P<.05$.

Table 3
Practice and clinical history variables

	Total (*N*=141)	No attempt (*N*=134)	Attempt (*N*=7)
	N (%)	*N* (%)	*N* (%)
N	*139*	*132*	*7*
Medical board involved	35 (25.2)	33 (24.8)	2 (33.3)
License sanctions (pre-FFD referral)	15 (10.8)	15 (11.4)	0 (0.0)
License sanctions (Current at FFD)	26 (18.7)	26 (19.7)	0 (0.0)
PHP monitoring agreement (pre-FFD)	22 (15.7)	19 (14.3)	3 (42.9)
PHP monitoring agreement[a] (post-FFD)	35 (25.2)	30 (22.7)	5 (71.4)

[a] Statistically significant difference Fisher's exact test, $P<.05$.

3. Results

Our convenience sample consisted of 141 Tennessee physicians referred for FFD (2001–2009) by TMF, the state physician health program, and for whom information about suicidal behavior up to 2013 was available. Seven (4.9%) of these 141 physicians evaluated at VCAP were known to have subsequently attempted suicide: of these, five died as a result. Two of the deaths occurred within the first month after FFD, and three between the second and seventh years post-FFD. This represents an alarmingly high (3.5%) suicide death rate among physicians referred for FFD assessment.

3.1. Demographic, practice and historical/clinical variables

Depression (43%) was the most common historical diagnosis. No reports of significant head injury were elicited on routine questioning. As summarized in Table 1, 4 of the 7 (57%) physicians with suicidal behavior reported past mental health issues at FFD, compared to 21 of 134 (16%) of those in the remaining (nonsuicidal behavior) group

Table 4
Assessment results

	Total (*N*=141)	No attempt (*N*=134)	Attempt (*N*=7)
	N (%)	*N* (%)	*N* (%)
Axis I diagnoses			
Anxiety disorder	6 (4.3)	6 (4.5)	0 (0.0)
Cognitive disorder	5 (3.5)	4 (3.0)	1 (4.3)
Mood disorders	57 (40.4)	52 (38.8)	5 (71.4)
Posttraumatic stress disorder	4 (2.8)	4 (3.0)	0 (0.0)
Sexual disorder	27 (19.1)	25 (18.7)	2 (28.6)
Substance use Disorder	48 (34.0)	44 (32.8)	4 (57.1)
Alcohol	26 (18.4)	23 (17.2)	3 (42.9)
Opiates	19 (13.5)	17 (12.7)	2 (28.6)
Marijuana	3 (2.1)	3 (2.2)	0 (0.0)
Amphetamines	2 (1.4)	2 (1.5)	0 (0.0)
Cocaine	4 (2.8)	4 (3.0)	0 (0.0)
Benzodiazepine[a]	16 (11.3)	12 (9.0)	4 (57.1)
Other	4 (2.8)	4 (3.0)	0 (0.0)
Axis II diagnoses			
Personality disorder	46 (32.6)	45 (33.6)	1 (14.3)
N	*134*	*127*	*7*
Fit to practice[a]	88 (65.7)	87 (68.5)	1 (14.3)

[a] Statistically significant difference Fisher's exact test, $P<.05$.