

# Utilization and Barriers to Mental Health Services Among Depressed Medical Interns: A Prospective Multisite Study

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## Abstract

**Background** Compared with graduate students and young adults in the general population, depression is more prevalent among training physicians, yet physicians are often reluctant to seek mental health treatment. The purpose of this study is to identify perceived barriers to mental health treatment among depressed training physicians.

**Methods** Subjects for this study were drawn from intern classes during the 2007–2008 and 2008–2009 academic years from 6 and 13 participating community and university hospitals, respectively. At 3-month intervals throughout the intern year, participants completed the Patient Health Questionnaire regarding current depressive symptoms and questions regarding current mental health treatment. We explored potential barriers to mental health treatment at the end of the intern year and determined the proportion of subjects screening positive for depression and seeking treatment through analysis of subject responses. Stepwise binary logistic regression was conducted to compare baseline characteristics among depressed interns who sought mental health treatment and those that did not.

**Results** Of the 42.5% (278 of 654) of interns who screened positive for depression, 22.7% (63 of 278) reported receiving treatment during the intern year. The most frequently cited barriers to seeking treatment were time (91.5%), preference to manage problems on their own (75.1%), lack of convenient access (61.8%), and concerns about confidentiality (57.3%). Interns who had previously sought treatment for depression were more likely to seek treatment during internship.

**Conclusions** Despite high rates of depression, few interns appear to seek mental health treatment due to time constraints, lack of convenient access, concerns about confidentiality, and a preference to manage problems on their own. By identifying barriers to mental health treatment we can begin to remove obstacles to the delivery of evidence-based treatments and implement prevention, screening, and early detection programs to improve the mental health of physicians in training.

## Introduction

A 2003 consensus statement by 15 experts on the subject of physician depression and suicide, as well as barriers to

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treatment that appeared in the *Journal of the American Medical Association*, noted that “The culture of medicine accords low priority to physician mental health despite evidence of untreated mood disorders and increased risk of suicide.”<sup>1</sup> Rates of depression among residents are elevated (7%–49%)<sup>2–13</sup> compared with graduate students and young adults in the general population (8%–15%).<sup>14</sup> High rates of depression are concerning among training physicians given this population's professional responsibility, and a growing body of evidence indicates that depression causes significant cognitive dysfunction and work impairment.<sup>15,16</sup>

Among physicians in training, depression has been associated with reduced quality of life and increased burnout,<sup>17</sup> resulting in poor quality of patient care and decline in the physician work force.<sup>18</sup> Recently, investigators have established a strong association between depression and perceived medical errors<sup>17,19,20</sup> and noted that medical errors are of a magnitude relevant to patient safety.<sup>20</sup> These studies suggest that reducing rates of depression among training physicians is a crucially important public health issue.

Unfortunately, physicians are often reluctant to seek mental health treatment,<sup>21</sup> and their peers are hesitant to intervene despite their professional responsibility to report impairment among their colleagues. Physicians frequently seek treatment only when their psychological distress and suboptimal performance has garnered the attention of insurance companies, police, and review boards.<sup>22</sup> Despite the elevated prevalence of depression among physicians and its associated high costs to physicians and patients, it is unclear why doctors underuse mental health treatment. The only study to date identifying barriers to mental health treatment in the medical profession is among medical students, and it found that the most frequently cited barriers to treatment in this population included lack of time, concerns regarding confidentiality, stigma, cost, fear of documentation on academic record, and fear of unwanted intervention.<sup>23</sup> At present, little is known about why doctors underuse mental health treatment.

In this study, we seek to gain insight into this issue by focusing on physicians early in their training, where rates of depression are elevated. The goals of this study are 2-fold: (1) to evaluate the use of mental health services among depressed physicians during internship and (2) to assess the barriers to mental health treatment among depressed interns.

## Methods

### Participants

A total of 1394 interns entering traditional and primary care internal medicine, general surgery, pediatrics, obstetrics-gynecology, and psychiatry residency programs during the 2007–2008 and 2008–2009 academic years from 6 and 13 participating community and university hospitals, respectively, were invited to participate in our study. For 123 subjects, our e-mail invitations were returned as undeliverable and we were unable to obtain an updated e-mail address. Of the remaining invited interns, 58% (740 of 1271) agreed to take part. Each participating hospital's Institutional Review Board approved the study.

### Data Collection

Six weeks prior to commencing resident duties, participants completed an online questionnaire assessing demographic characteristics and depressive symptoms. After beginning clinical duties, participants were surveyed every 3 months throughout their intern year for current depressive symptoms and if they sought mental health treatment. At the 12-month survey, subjects were queried regarding perceived barriers to mental health services. This study is part of an ongoing investigation into the interaction between genes and stress in the etiology of depression.<sup>24</sup> Thus, subjects choosing to take part in the study were given the option to submit a saliva sample for DNA extraction.

## Study Measures

In all surveys, current depressive symptoms were measured using the 9-item Patient Health Questionnaire (PHQ-9). A score of 10 or greater on the PHQ-9 has a sensitivity of 88% and a specificity of 88% for the diagnosis of a major depressive disorder.<sup>25</sup> PHQ-9 scores of 5, 10, 15, and 20 reflect mild, moderate, moderately severe, and severe depression, respectively.<sup>25</sup> In this study, cases of depression were defined as a score of 10 or greater on the PHQ-9.

Use of mental health treatment was evaluated at each 3-month survey by asking subjects, "Since completing the last set of questionnaires, have you started taking any of the following medication(s)?" Possible responses included "antidepressant, mood stabilizer, benzodiazepine, or none of the above." In addition, subjects were asked to respond yes or no to the question, "Since completing the last questionnaire, have you started seeing a counselor or psychotherapist?"

Perceived barriers to mental health treatment were assessed by asking participants to indicate their level of agreement on a 5-point scale ranging from strongly agree to strongly disagree regarding "potential concerns that might affect your decision to receive mental health treatment if you were ever in need of these services." The items related to potential barriers to treatment were derived from a study on medical professionals by Givens and Tjia.<sup>23</sup> Barriers are shown in the TABLE.

### Statistical Analysis

All analyses were performed using SPSS 16.0 (Statistical Package for the Social Sciences, Chicago, IL). The proportion of subjects screening positive for depression and seeking treatment were determined through analysis of subject responses at the 3-, 6-, 9-, and 12-month assessments. We conducted a stepwise binary logistic regression to compare baseline characteristics among those depressed interns that sought mental health treatment and those that did not.

## Results

A total of 58% (740 of 1271) of invited interns agreed to take part in the study. Participants were younger (27.9 years old versus 28.4 years old;  $P < .001$ ) and more likely to be female (54.4% versus 52.5%;  $P < .001$ ) than individuals that chose not to participate. Eighty-eight percent (651 of 740) of subjects participated in at least 1 follow-up survey.

Of the 42.5% (278 of 654) of interns who screened positive for depression, 22.7% (63 of 278) reported starting treatment at some point during intern year. Among the interns who sought treatment, 39.7% (25 of 63) reported use of therapy plus medication, 33.3% (21 of 63) reported use of therapy without medication, and 27% (17 of 63) reported medication use only. Of the 42 participants that received medication, 64.2% (27 of 42) started an antidepressant and 23.8% (10 of 42) started a

TABLE	BARRIERS TO MENTAL HEALTH TREATMENT AMONG INTERNS REPORTING DEPRESSION	
		Strongly Agree and Agree, % (No./Total No.)
Reported barriers to seeking mental health treatment		
I prefer to manage my problems on my own.		75.1 (160/213)
I am concerned about confidentiality.		57.3 (121/211)
I am concerned about what others would think.		52.1 (111/213)
It would harm my career.		35.4 (75/212)
I don't believe mental health treatment (medication or counseling) would help me.		24.9 (53/213)
My colleagues would have less confidence in me.		43.4 (92/212)
Other factors that could inhibit seeking treatment		
Time (ie, lack of personal time to seek mental health care)		91.5 (195/213)
Lack of convenient access to care (ie, location, appointment availability, appointment times)		61.8 (131/212)
Cost (ie, poor insurance coverage or lack of personal finances)		50.2 (107/213)
Lack of information about how/where to obtain services		35.4 (75/212)

benzodiazepine. Two interns (4.8% [2/42]) reported having started on antidepressants and benzodiazepine, two interns (4.8% [2/42]) reported starting on mood stabilizers, and 1 intern (2.4% [1/42]) reported having started on mood stabilizers and benzodiazepine.

There were no differences in age (Wald  $\chi^2_1 = 0.33$ ,  $P =$  not significant [NS]), sex (Wald  $\chi^2_1 = 0.08$ ,  $P =$  NS), history of depression (Wald  $\chi^2_1 = 1.32$ ,  $P =$  NS), marital status (Wald  $\chi^2_4 = 3.07$ ,  $P =$  NS), institution (Wald  $\chi^2_{13} = 7.37$ ,  $P =$  NS), or specialty (Wald  $\chi^2_5 = 14.36$ ,  $P =$  NS) among depressed interns who sought mental health treatment and those that did not. In contrast, interns who had previously sought mental health treatment were more likely to seek treatment during internship (Wald  $\chi^2_1 = 5.87$ ,  $P = .01$ ).

Depressed interns who completed the 12-month assessment (76.6%, 213 of 278) most frequently endorsed lack of time (91.5%), preference to manage problems on their own (75.1%), lack of convenient access (61.8%), and concerns about confidentiality (57.3%) as barriers to treatment (TABLE). Compared with depressed interns who received treatment, depressed interns who did not receive treatment were significantly more likely to prefer to manage their problems on their own ( $M = 2.42$ ,  $SD = 1.085$ ) versus ( $M = 2.01$ ,  $SD = 0.887$ ),  $t_{211} = 2.795$ ,  $P = .001$ , and significantly less likely to believe that mental health treatment worked ( $M = 4.16$ ,  $SD = 0.996$ ) versus ( $M = 3.20$ ,  $SD = 1.098$ ),  $t_{211} = 5.782$ ,  $P = .04$ .

## Discussion

Our results demonstrate a high incidence of depression among training physicians with 42.5% of interns screening positive for depression during the intern year.

Unfortunately, and consistent among other medical professionals,<sup>21-23</sup> interns are unlikely to seek mental health services with only half of depressed interns obtaining mental health treatment during the intern year. Depressed interns cite time, preference to manage problems on their own, lack of convenient access to care, and concerns about confidentiality as significant barriers to mental health treatment. In light of these data, interventions are necessary to both reduce rates of depression and decrease obstacles to mental health care among training physicians.

Given the high incidence of depression found among interns, preventative approaches are warranted. In a recent review, Beekman and colleagues<sup>26</sup> found that prevention of depression among high-risk groups is effective with overall preventative interventions reducing the onset of depression by 25% to 50%. Preventative strategies included both medication and therapy. Although interns may be reluctant to start prophylactic medication, psychological interventions alone have been shown to be effective in reducing the incidence of depression. A recent meta-analysis of 19 randomized control trials by Cuijpers and colleagues<sup>27</sup> demonstrated that psychological interventions, primarily using cognitive behavioral therapy, reduce the incidence of depression by 22%. Given the well-known demands and

stressful nature of internship, equipping interns with cognitive coping skills to combat the stress of the intern year would likely be welcomed by interns.

Other valid approaches for populations at high risk for depression include screening and early intervention. Screening of depressive symptoms in interns is highly feasible. Data from our study demonstrate that interns are willing to complete confidential online questionnaires related to depression with on average 69% of subjects completing all quarterly assessments and 88% of subjects completing at least 1 follow-up survey. Providing interns with feedback about their depression rating scale score, compared with normative data for those of similar age and gender, may help interns recognize a current depressive episode. Screening and early recognition of depression, however, is only useful if followed by early intervention and appropriate treatment.

Recently, investigators have begun using Internet-based mental health interventions to reach those in need of mental health services. Fortunately, the effect size of interventions for a variety of anxiety and mood disorders delivered over the Internet is quite high with most effect sizes for depression being greater than 0.5.<sup>28</sup> This delivery format has a number of potential benefits over in-person treatment for medical interns: it ensures complete confidentiality, is low or no cost, allows for flexibility in time of day it is accessed, obviates travel burden to and from sessions, and provides tools for interns to manage problems on their own and little association with psychiatry, all of which are likely to increase service use among trainees.

Another shorter term approach to addressing the high incidence of depression among interns is to better understand and identify factors within residency that are “depressogenic.” We examined a number of within-residency factors from 13 community and university hospitals throughout the United States including over 55 residency programs. Interestingly, institution and medical specialty were not found to predict depression, but factors universal to all interns such as increased work hours and medical errors predicted an increase in depressive symptoms during the intern year.<sup>24</sup> Although intern work hours have been reduced, it appears that continued efforts in this direction may improve not only patient safety but also physician mental health. Given the association of depression and medical errors,<sup>17,19,20,24</sup> interventions aimed at helping physicians cope with the feelings of distress, guilt, and shame often associated with medical errors would likely be a helpful and welcomed intervention.

It should be noted that rates of depression found in our study are higher than most studies screening for depression among medical residents (7%–49%).<sup>2–13</sup> One reason may be that prior studies were cross-sectional, whereas our study assessed depressive symptoms every 3 months. Multiple assessments during the year likely increased the chances of identifying a new case of depression and may account for

these findings. On average 25.7% of interns met criteria for depression at each of the follow-up assessments.<sup>24</sup> These findings are consistent with other studies that also assessed the point prevalence of depression among medical residents.<sup>17,19,20</sup>

There are potential limitations to the data presented in this article. First, we assessed depression through a self-report inventory rather than a diagnostic interview. We chose this method, as opposed to an in-person assessment, based on previous data demonstrating that anonymity is necessary to accurately ascertain levels of depression among medical students.<sup>30</sup> Based on these data, we employed the PHQ, which has a diagnostic validity comparable to that of clinician-administered assessments.<sup>29</sup> Nonetheless, it would be important to validate these findings using structured clinical interviews for diagnosis. Second, a subject participation rate of 58% is much lower compared with other studies that have used similar methods of assessing medical residents via online questionnaires.<sup>17,19,20</sup> The low response rate of 58% may reflect an additional study requirement of providing a DNA sample; however, this is not confirmed. Although there were only modest differences in age and gender between those who chose to take part in the study and those who did not, our results should be extrapolated with caution. Third, we measured perceived barriers to mental health treatment that may not reflect actual barriers to care. However, the barriers assessment was administered at the end of the intern year and are thus more likely to reflect actual barriers to treatment in the group of interns that received care. Fourth, it is important to note that our data analysis determined whether each subject met criteria for depression and whether the subject used psychiatric care at any of the 4 assessments. Thus, we do not definitively know if depressive symptoms preceded care use. Lastly, it is important to note that our study was restricted to interns and thus our results may not hold true for advanced residents or physicians who have completed their training.

Our data suggest there are important differences in barriers to treatment among those who received treatment and those that did not. Interestingly, those with a history of prior mental health treatment were more likely to receive services compared with those without such a history, despite similar barriers. Although prior successful treatment possibly motivated this group to seek care, understanding other potential motivators and how they overcame the barriers of time, access, and stigma may be an important next question for future investigations.

## Conclusions

Despite high rates of depression among training physicians, very few seek mental health treatment due to time constraints, lack of convenient access, concerns about confidentiality, and a preference to manage problems on their own. By identifying barriers to mental health treatment among a population at risk for depression we can

begin to remove obstacles that prevent delivery of evidence-based treatments and implement strategies within residency education to improve the mental health of training physicians.

In an effort to facilitate effective mental health treatment, we must reduce the obstacles to care identified by depressed medical interns. Providing confidential and convenient access to services, including protected time for interns to attend appointments, would likely increase the use of mental health services. For depressed interns who do not believe that mental health treatment can be helpful, education about the efficacy of available evidence-based depression treatments may be an important intervention.

A challenging barrier to overcome is perceived social stigma. There is a long-standing belief, often referred to as the “hidden curriculum,” in residency education that perpetuates the idea that psychiatric disorders and psychological problems are shameful. This belief is reflected in our data with more than half of depressed interns expressing concern about what others would think if they received mental health treatment and 43% believing that their colleagues would have less confidence in them if they sought mental health treatment. Shifting attitudes regarding mental illness and treatment in the medical profession is difficult but necessary in order for physicians to receive appropriate mental health care. Furthermore, because physicians’ own health maintenance influences their counseling of patients, a shift in attitudes will likely improve the mental health care of patients.<sup>1</sup>

National organizations are likely to be helpful in modifying the hidden curriculum and shifting our profession’s attitudes about mental illness. For example, the Accreditation Council for Graduate Medical Education could mandate that institutions educate interns, residents, faculty, and program directors about mental illness in the medical profession and encourage mental health treatment. Further, each institution could provide information about where professionals can receive confidential evidence-based mental health services. Another way to reduce the stigma of mental illness is to include the recognition of mental health problems within one’s self and colleagues in the professionalism core competency that physicians are required to achieve during residency. Destigmatization of mental illness among medical professionals is a long-term goal, but given that interns every year are experiencing high rates of depression, other short-term and novel approaches to address this problem should be considered.

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