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IN BRIEF REPORT

Perceptions of Residents and Their Training Directors Regarding Wellness Education, Program Support, and Access to Depression Treatment: the DEPRESS-Ohio Study

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Abstract

Objective This study determines the extent to which residents and their program directors have discordant perceptions regarding wellness, support, and treatment opportunities for trainees. In addition, the authors examined whether psychiatry residents differed in their perceptions compared with residents in other specialties.

Methods Residents and their program directors from each of 10 specialties were electronically surveyed after IRB approval and giving informed consent.

Results Of 42 program directors responding, over 92% indicated they provided wellness education and programming; however, a significantly lower percentage of 822 trainees were aware of this (81.2% and 74.9%, respectively). A similar disparity existed between program directors (PDs) who knew where to refer depressed residents for help (92.9%) and residents who knew where to seek help (71%). Moreover, 83.3% of program directors believed they could comfortably discuss depression with a depressed resident, but a lower percentage of their trainees (69.1%) felt their training directors would be supportive. A significantly greater percentage of program directors (40.5%) believed seeking treatment for depression might compromise medical licensure than did residents (13.0%). Psychiatry residents were significantly more aware of wellness, support, and access than were residents from other specialties.

Conclusions The availability of wellness education, programming, program director accessibility, and knowing where to ask for help if depressed does not seem to be adequately communicated to many residents. Moreover, program directors disproportionately see depression treatment as a risk to medical licensure compared with their residents. Psychiatry residents seem to be more aware of program director support and access to care than their colleagues.

Keywords Residency · Program director · Wellness · Depression · Medical licensure

Depression is very common in medical trainees [1]. Medical students have been shown to have a high incidence of depression [2, 3], and 20–35% of residents are reportedly depressed [1, 4, 5]. While some trainees enter residency with depression, many others develop depression while in training [6]. Trainees who develop depression early in their career are likely at greater risk of depression later in their career as well. Suicide rates appear greater in physicians than in the community [7]. Whether early identification of depression might improve resident wellness, reduce later depression, and decrease risk of suicide in physicians has yet to be determined. However, since depressed residents appear more likely to commit medical errors [8], early identification and treatment might also enhance patient safety.

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Facilitating the identification of depression in trainees has become increasingly important to training directors [9, 10]. Training programs are developing wellness programs [11, 12], instructing trainees to better identify depression [13], and developing employee assistance-like programs [14] to enhance resident awareness and facilitate treatment of depression. There is, however, no research comparing perceptions between residents and their program directors on the availability of wellness programming or access to care. Thus, it is uncertain to what extent residents are aware of the wellness programs instituted by training institutions or to what extent they feel as comfortable asking for help as their program directors' might hope. It is also unclear whether there are differences in awareness among specialties.

The DEPRESS-Ohio Study (DEPression in RESidents Survey in Ohio) was designed to examine awareness of wellness programming and access to care perceptions of residents and their program directors in 10 specialties in all seven Ohio academic medical institutions in order to identify potential disparities. Moreover, this study was designed to examine possible differences between psychiatry residents and residents of other specialties in these perceptions.

Methods

After acquiring IRB approval at each institution (and hospital as necessary), a survey and consent form was developed specific to trainees and distributed electronically by the Graduate Medical Education (GME) offices at each of eight training hospitals of the seven academic institutions across Ohio (two training hospitals were affiliated with Northeast Ohio Medical School; one hospital from each of the other six academic institutions in Ohio). A similar survey and consent form was developed for program directors and distributed to them electronically by their institution's GME office. The surveys were developed with input from both psychiatry program directors and psychiatry residents.

The 10 specialties chosen to receive the survey were those in which a resident would begin in that specialty as a postgraduate year (PGY) 1. All residents in that specialty program were surveyed, but no sub-specialty or fellowship programs were surveyed. Not all specialty training programs were offered at all academic institutions, and some declined to participate in the study.

Recruitment emails were distributed electronically with a link to the consent form and, if accepted, an automatic link to the survey. Residents were not obliged to answer any or every question except designating their specialty and training institution. Residents were also asked their gender, age range, PGY status, and marital status; however, no other identifiers were requested and all surveys were completed and submitted anonymously. Program directors were asked to indicate their specialty and the institution to which they were affiliated. Respondents were queried regarding their awareness of wellness resources, perceived support of training directors for a depressed resident, perceived impact of depression treatment on medical licensure, and access to depression treatment.

Study committee members engaged with their colleagues at their respective institutions to alert them to the GME survey email in order to minimize inadvertent deletion of the survey. This was largely done by email. The initial link sent by each institution's GME office in early December 2017 was followed up by a subsequent email from the respective GME office in January 2018 asking those who had not yet completed the survey to do so. Study data were collected and managed using REDCap (Research Electronic Data Capture) tools hosted at Wright State University [15].

Statistical Analysis

We compared residents' and program directors' answers to seven pairs of questions. The proportion of residents and program directors answering "yes" (to a yes/no or yes/not sure/no question) or "strongly agree" or "agree" (to a Likert scale question with possible responses strongly agree/agree/neutral/disagree/strongly disagree) were compared using logistic regression, including a finite population correction factor based on 822 residents surveyed out of a possible 1766 in programs with responding program directors. Odd ratios (OR) and their 95% confidence intervals (CI) were reported. The Hommel method [16] was used to adjust for multiple testing over the seven pairs of questions compared to preserve a family-wise Type I error of 0.05. This analysis was repeated to compare the proportions of residents answering positively for each of the six resident questions between psychiatry and non-psychiatry residents.

Logistic regression mixed modeling was conducted in R 3.4.4 (R Foundation for Statistical Computing, Vienna, Austria), using the glmm package [17]. To adjust for non-independence due to clustering, analysis included a random program (institution x specialty) effect, resulting in odd ratios that are not necessarily equal to what would be obtained based on raw proportions. The Hommel adjustment was done in SAS 9.4 (SAS Institute, Inc., Cary, NC).

Results

Of 59 program directors sent surveys by email, 42 (71.2%) submitted completed surveys (Table 1). Of 1766 total residents in those programs, 822 (46.5%) submitted surveys (Table 1). 44.1% of trainees were over the age of 30 years with slightly more women (52.1%) than men responding. The distribution of trainees across PGY classes was fairly

Table 1 Number of responding program directors ($n = 42$) and residents ($n = 822$) by specialty and institution

		Program directors		Residents	
		N	%	*N*	%
Specialty	Emergency medicine	3	7.1	42	5.1
	Psychiatry	7	16.7	134	16.3
	Anesthesiology	5	11.9	76	9.2
	Pediatrics	3	7.1	124	15.1
	Family medicine	5	11.9	44	5.4
	Radiology	2	4.8	28	3.4
	Pathology	3	7.1	30	3.6
	Internal Medicine	3	7.1	163	19.8
	Obstetrics and gynecology	4	9.5	36	4.4
	Surgery	7	16.7	145	17.6
Institution	Ohio State University	5	11.9	86	10.5
	University of Cincinnati	6	14.3	102	12.4
	University Hospitals of Cleveland	8	19.0	141	17.2
	Akron General	4	9.5	36	4.4
	University of Toledo	6	14.3	50	6.1
	Cleveland Clinic Foundation	8	19.0	305	37.1
	Summa Health	1	2.4	9	1.1
	Wright State University	4	9.5	93	11.3

even. The majority were single or married with very few separated or divorced. Most had some (often large) student loan debt. Program directors were widely distributed by age, but the majority had fewer than five years of experience as a program director.

As seen in Table 2, almost all program directors indicated that they educate residents about wellness (40/42, 95.2%) and that there was a wellness program available to residents at their institution (39/42, 92.9%). However, a significantly lower percentage of residents indicated an awareness of such education (664/818, 81.2%; OR = 7.50, $p < .001$, 95% CI 2.38–23.6) or of wellness programming (614/820, 74.9%; OR = 5.07, $p < .001$, 95% CI 2.07–12.4).

Program directors largely indicated that if they suspected a resident had depression, they would be comfortable approaching him/her about it (35/42, 83.3%). Moreover, they indicated they encourage their residents to inform them if the resident is struggling with depression (35/42, 83.3%). A significantly lower percentage of residents, however, believed their program director would be supportive if they were depressed (567/821, 69.1%; OR = 2.36, $p < .01$, 95% CI 1.26–4.42) or believed they could ask their program director for help if feeling depressed (558/819, 68.1%; OR = 2.39, $p < .01$, 95% CI 1.28–4.45).

Program directors mostly believed they knew where to refer depressed residents for confidential depression treatment (39/42, 92.9), but fewer felt confident their residents knew where to seek help themselves (34/42, 81.0%). A lower percentage of residents knew where to seek help for depression (582/820, 71.0%; OR = 5.56, $p < .001$, 95% CI 2.30–13.4, and OR = 1.75, $p = .064$, 95% CI 0.97–3.18, respectively). While 40.5% of program directors believed residents with depression were at risk of losing their medical license, only 13% of residents believed this was the case (OR = 4.55, $p < .001$, 95% CI 2.83–7.31).

After adjusting for multiple testing, psychiatry residents were more likely to respond that they were aware of wellness education offered by their program than were non-psychiatric residents (OR = 4.36, $p < .001$, 95% CI 2.65–7.18). Psychiatry residents also saw their PD as more supportive than did residents in other specialties (OR = 2.31, $p < .001$, 95% CI 1.50–3.55). Psychiatry residents also were more likely to believe they could ask their PD for help if depressed (OR = 2.49, $p < .001$, 95% CI 1.65–3.77) and more often responded that they knew where to access help if depressed (OR = 3.51, $p < .001$, 95% CI 2.28–5.40) than other residents. A greater percentage of psychiatry residents (134/213, 62.9%) submitted surveys than non-psychiatric residents (688/1553, 44.3%) did.

Discussion

In this preliminary study, program directors at Ohio institutions training today's medical residents appear to be trying to institute a culture to enhance depression awareness and access to care when warranted. Almost all specialty program directors reported the availability of wellness education and

Table 2 Resident perceptions vs. program director (PD) perceptions (ORs adjusted for clustering by program; SA = strongly agree, A = agree, N = neither disagree nor agree, D = disagree, SD = strongly disagree)

Question (# of non-missing values)		% Yes or SA/A		OR			
Residents	Program directors	Residents	PDs	PD vs. resident	95% CI	p	
Q1. Does your training program educate about wellness? (Yes vs. not sure/no) ($n = 818$)	Q1. Does your training program educate residents about wellness? (Yes vs. not sure/no) ($n = 42$)	81.2	95.2	7.50	(2.38, 23.6)	< 0.001	***†
Q2. Do you have access to a wellness program? (Yes vs. not sure/no) ($n = 820$)	Q2. There is a wellness committee/ program in my training program/ department/institution. (Yes vs. no) ($n = 42$)	74.9	92.9	5.07	(2.07, 12.4)	< 0.001	***†
Q3. Do you believe your training program is/would be supportive if a resident had depression? (Yes vs. not sure/no) ($n = 821$)	Q3. If I suspect one of my residents has depression, I feel comfortable approaching him/her to talk about it. (SA/A vs. N/D/SD) ($n = 42$)	69.1	83.3	2.36	(1.26, 4.42)	0.007	**†
Q4. Do you believe seeking treatment for depression has negative consequences for medical licensure? (Yes vs. no) ($n = 822$)	Q4. Residents with depression are at risk for losing their medical license. (SA/A vs. N/D/SD) ($n = 42$)	13.0	40.5	4.55	(2.83, 7.31)	<0.001	***†
Q5. Do you feel you can ask your program director for help if you feel depressed? (Yes vs. not sure/no) ($n = 819$)	Q5. I encourage my residents to inform me if they are struggling with depression. (SA/A vs. N/D/SD) ($n = 42$)	68.1	83.3	2.39	(1.28, 4.45)	0.006	**†
Q6. Do you know where to ask for help if you feel depressed? (Yes vs. not sure/no) ($n = 820$)	Q6a. I am aware of where to refer my residents for confidential treatment of depression. (SA/A vs. N/D/SD) ($n = 42$)	71.0	92.9	5.56	(2.30, 13.4)	< 0.001	***†
Q6. Do you know where to ask for help if you feel depressed? (Yes vs. not sure/no) ($n = 820$)	Q6b. My residents are aware of where they can seek confidential help for depression. (SA/A vs. N/D/SD) ($n = 42$)	71.0	81.0	1.75	(0.97, 3.18)	0.064	

*$p < 0.05$

**$p < 0.01$

***$p < 0.001$

† Significant after adjusting for multiple testing

programming, as well as being aware of where to send a depressed resident who needed help. Nearly as many say they attempt to develop an accessible culture whereby they would talk to a depressed resident and would encourage such residents to talk with them.

Though the nature of wellness programming was not specified, the value and intensity of such programs may vary widely. Residents may have responded that no program was available, despite its presence, if they believed it to be insignificant or unhelpful. Program directors may have assumed programming was available even if it was not. Since the accuracy of these perceptions cannot be ascertained, caution is advised in interpreting these results.

The extent to which residents have the opportunity for confidential psychiatric assessment and intervention, which may include an Employee Assistance Program or counseling office accessible by confidential self-referral, may impact programming participation of residents warranting care. A single seminar at the beginning of training, for instance, is likely less adequate than repeated efforts to alert residents to the availability of confidential assessment. Moreover, maintaining a culture that encourages self-care and wellness requires that program directors and other faculty mentors remain alert to the elements of good emotional health in their residents and encourage professional behaviors that might facilitate good mental health.

Regardless of the opportunities program directors report are available, too many residents appear to be unaware of wellness education or programming, perhaps compromising the ability to detect depression in themselves and others. Many do not feel comfortable talking with their program director if depressed, possibly because they may underestimate how supportive their program director would be. Residents may fear the stigma associated with depression, and the perception that they are less competent than their peers. In order to overcome this, program directors should consider having multiple avenues of support available for residents struggling with depression. Faculty members and residency support staff such as coordinators should receive instruction on mental health awareness training in order to improve their ability to

recognize warning signs, assist in a crisis, or just talk with someone who is seeking help. Residents need frequent reassurance from their training faculty that seeking help for depression will not result in negative consequences for their training or career and that treatment would be supported by the training program. In addition, residents also should have access to confidential evaluation and treatment resources available by self-referral. Training physicians must remember that residents model their mentor's opinions and behavior about psychiatric assessment by watching their mentors' attitudes about mentally ill patients receiving care, so the faculty must be careful about the message they give their trainees in this regard.

Another limitation is that the question allowing comparison of perceived support was not identical for residents and program directors. We asked residents if they believed their program director would be supportive of a depressed resident, while we asked program directors if they would be comfortable talking with a resident who they suspected was depressed. Thus, interpretation of this difference must be made cautiously. Because this wording was not identical, the reported odd ratios, 95% confidence intervals, and statistical tests are only approximations. Nonetheless, we chose to include them to provide a sense of the differences in proportions given the sample size.

Given that nearly 30% of residents do not know where to go for help if depressed, it is critical that residents feel supported by their program director and faculty mentors regarding emotional distress and depression, and faculty make certain residents know how to access confidential care if warranted. Successful communication of currently available resources and enhancement of these resources appear necessary to improve mental health outcomes among resident physicians.

Additionally, a significantly higher percentage of program directors (40.5%) than residents (13.0%) believe that the diagnosis of depression would risk one's medical license. On this question, the residents appear to be correct. In Ohio, a depressed physician (whether in treatment or not) need only reveal this on application to the state medical board if the depression impairs their ability to carry out their professional responsibilities. Nonetheless, this might compromise a program director's willingness to confront or refer a resident for treatment if they erroneously believe it could jeopardize that resident's professional future. Designated Institutional Officials (DIOs) and Graduate Medical Education Committees should educate all program directors that under Title II Regulations (28 CFR Part 35—Nondiscrimination on the Basis of Disability in State and Local Government Services), medical board applicants with mental illness should not be treated differently compared with other applicants simply because they have a mental health diagnosis or have been diagnosed with a mental illness in the past. The issue in licensing professionals is not whether they have any particular diagnosis but whether their diagnosed illness (be it physical or mental) impairs their ability to function in their professional capacity.

A comparison between psychiatry residents and those of other specialties revealed significant differences suggesting psychiatry trainees may be more aware of available wellness education, program director support, and accessibility of care if warranted than their colleagues. Since it is possible that response rate differences could impact statistical significance, we used a finite population sampling correction factor to control this. It is possible that psychiatry residents select their specialty because of a heightened sensitivity to such matters and are therefore more aware of wellness and access to mental health care. It is also possible that psychiatry program directors are more sensitive to the needs of their trainees and better communicate their support and availability. Psychiatry program directors may have a role to play in helping their colleagues create a culture within their institutions to enhance awareness and support among residents needing mental health services.

In addition to the limitations described earlier regarding programming and support, sample size and non-response bias needs to be considered. Only 71.2% of program directors and 46.5% of residents in their programs submitted surveys. While analysis failed to identify any bias, one cannot be certain that the significant differences identified in this study would be maintained with a larger percentage of respondents. However, to check for the presence of non-response bias, we conducted an analysis of those residents who submitted early (December 2017) and those submitting after the second email (January 2018) and found very similar proportions for the questions listed in Table 2. This suggests that those who would have been "non-submitters" had we only sent a single email were very similar to those who submitted initially and provides some evidence against non-response bias [18].

Residency training directors in Ohio are providing wellness education and making programming available to their residents and appear to be available to residents who are depressed. There is a need for improved communication of this availability and reduction of stigma associated with seeking help for depression. Provision of services and opportunity for care are most useful when the target population is aware of what is available.

With the introduction and implementation of the new Accreditation Council for Graduate Medical Education (ACGME) Common Program requirements related to resident well-being, programs without substantial compliance will be subject to citation after July 1, 2019. Future studies to assess residents' and program directors' attitudes after implementation of these requirements would be useful to gauge the impact of change.

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This study was conducted after acquiring IRB approval at all seven academic training institutions. Surveys were completed after each participant acknowledged informed consent.

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Compliance with Ethical Standards

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