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After Hours: A Survey of Moonlighting Practices in Psychiatry Residents

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Abstract

Objective: The authors surveyed psychiatry residents to determine who participates in moonlighting and to understand their views and opinions on the necessity, importance, and educational value of moonlighting.

Methods: An electronic survey was distributed to psychiatry residents at 16 programs nationally. Descriptive characteristics were calculated. Logistic and linear regressions were performed to determine differences between those who moonlight and those who do not and to assess differences in measures of financial distress, quality of life, and work-life balance.

Results: A total of 173/624 (27.6%) residents participated. Within the subset allowed to moonlight, 50% (47/94) reported moonlighting during prior academic year, for an average of 17.4 $\pm$ 8.6 hours per month. Within those eligible to moonlight, there were no differences in perceived financial distress, quality of life, work-life balance, and confidence between residents who moonlighted and those who did not. Among moonlighters, 10.6% moonlighted overnight before working the next day, and only 68.1% included moonlighting when recording duty hours. 45% reported no supervision available while moonlighting.

Conclusions: In the study sample, 50% of psychiatry residents eligible to moonlight opted to do so. Though most programs have policies in place regarding moonlighting, programs may benefit from ensuring that residents are reporting moonlighting in duty hours and that supervision is available to those moonlighting.

Keywords

psychiatry residents; moonlighting; duty hours

Moonlighting during residency is practiced by an estimated 44% to 69% of psychiatry residents at some point during training [1, 2]. As a result, most residency programs have developed policies and procedures around moonlighting. Among psychiatry residents, the number of residents who engage in moonlighting, the motivating factors in residents' decision to moonlight, and the value derived from such practices are not well understood.

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Ethical Considerations

The Partners Institutional Review Board determined that this study was exempt from review.

Disclosure

On behalf of both authors, the corresponding author states that there is no conflict of interest.

Prior studies assessing moonlighting practices within psychiatry were conducted more than 20 years ago, included a preponderance of men, and, in some cases, did not survey individual residents directly. Therefore, the results may not represent the demographic or culture of current trainees [1, 2].

Historically, residents across many disciplines have reported a desire to moonlight to supplement their income, enhance their education, and develop more independence and self-confidence [2–8]. Many training programs have supported moonlighting because it can provide residents opportunities to see different clinical settings, be exposed to different styles of practice, and carry more responsibility for patient care decisions than in the training setting [4, 9,10]. Prior studies of residents in other specialties have found that those who moonlight report significantly less stress, higher satisfaction, higher levels of personal achievement, and lower levels of emotional exhaustion than those who do not [3, 11].

Among residency programs, moonlighting practices have not been consistently monitored, with one study reporting that only 46% of training programs had policies regulating moonlighting practices [2]. Despite the Accreditation Council for Graduate Medical Education (ACGME) requirements established in 2003 that residents report all duty hours, including moonlighting [12], many residents are inconsistent about including moonlighting hours in their report [10].

Given the increasing focus on wellness in residency and concerns about burnout [13], it is imperative to understand more about resident practices that may impact feelings of personal stress, such as moonlighting. We surveyed psychiatry residents to characterize the population of psychiatry residents who engage in moonlighting and to understand their views and opinions on the necessity, importance, educational value, and goals of moonlighting.

Methods

We designed an electronic survey for general psychiatry residents using a combination of novel and modified questions from prior surveys regarding practices and attitudes toward moonlighting [11, 14]. We selected 16 training programs to allow for diversity in region, urbanicity, and program size. We also chose programs on the basis of our relationship with the program director or a core faculty member, with the goal of maximizing program buy-in and optimizing the response rate. Program directors who acknowledged willingness to distribute the survey were provided an email to send to trainees inviting them to participate. All general psychiatry residents in the 16 training programs were given the opportunity to participate in the survey.

The survey remained available to participants from February 20, 2018, to May 1, 2018, and was administered through REDCap [15]. Halfway through the time period, a reminder email was sent to trainees. No compensation was provided for participation. The Partners Institutional Review Board determined that this study was exempt from review.

We collected survey responses and calculated descriptive statistics (e.g., mean and standard deviation) to characterize the study population. We obtained information regarding the total

number of residents in each program and year of eligibility to moonlight from each program director. We calculated the response rates using the numbers of all residents who received the survey at a given program.

We analyzed the subset of respondents who were eligible to moonlight by postgraduate year and residency training program. To identify any differences in demographic characteristics between those who moonlighted and those who did not, we performed logistic regression controlling for residency training program. We performed linear regressions to determine differences in financial distress, quality of life, and work-life balance measures, controlling for postgraduate year and residency training program. We performed all statistical analyses using StataSE version 14.2 [16].

Results

A total 173 residents from 16 programs responded out of 624 who received the email, yielding an overall response rate of 27.6% (range 9.1%-70.5%). Average age was 30.6 ± 4.9 years, and 50.9% were female. We found no significant differences ($p>0.05$) in age, gender, relationship status, having children, or presence or amount of educational debt between those who were eligible to moonlight and those who were not (Table 1).

Among those who were allowed to moonlight, 50% (47/94) reported moonlighting activity during the last academic year. Residents estimated spending on average 17.4 ± 8.6 hours per month moonlighting (range 0-44 hours). The main reasons cited were largely financial. A smaller subset of residents identified their primary motivator as developing clinical experience by gaining independence or responsibility (12.8%). Ten percent of residents reported ever moonlighting an overnight shift and then performing regular residency duties the next day. Only one resident (2.1%) reported moonlighting such that work hours extended beyond the 80-hour limit. Almost all residents (46/47, 97.9%) reported that their program had specific guidelines or a policy in place regarding moonlighting practices. However, only 68.1% reported that they include moonlighting in duty hours, with almost 25% reporting not including any moonlighting, 4.3% reporting including internal moonlighting only, and 4.3% stating that their program did not require reporting. Twenty of the 47 residents eligible to moonlight reported that they participated in moonlighting outside of their home institution; 45% of these 20 residents reported no supervision available to them.

We found no differences in perceived financial distress, quality of life, work-life balance, and confidence in clinical skills between eligible residents who choose to moonlight and eligible residents who do not (Table 2).

Discussion

This survey demonstrates that moonlighting remains a common practice among psychiatry residents, with nearly half of those residents eligible to moonlight doing so regularly. Residents who moonlight work several shifts each month, with some adding nearly an entire work-week in moonlighting hours to their schedule each month. Notably, however, the average monthly commitment has decreased by nearly 50% over the past 20 years, from 31.4 to 17.4 hours per month [2].

Although residents cite financial incentives and a desire to gain increased clinical exposure as primary reasons to moonlight, we found no differences in financial distress or clinical confidence in those who chose to moonlight. Instead, we found on all measures of financial strain a trend toward more financial distress in those who moonlight than those who do not. While this trend could suggest that outcomes do not align with perceived expectations regarding the financial benefits of moonlighting, a more likely interpretation is that residents with financial strain are choosing to moonlight as a way to mitigate their financial distress.

Prior studies in other specialties indicated improvements on measurements of distress among those who moonlight, specifically with regard to lower levels of personal exhaustion and stress [3, 11]. We were therefore surprised to find that moonlighting did not positively or negatively impact quality of life among our cohort, which represents a notable difference from prior literature. Though there was a trend toward higher quality of life, better work-life balance, and more confidence in the cohort who engaged in moonlighting, none of these differences reached statistical significance (Table 2). We nonetheless view these findings with optimism, as they may suggest that moonlighting is a sustainable practice that does not contribute to decreased perceptions of wellness.

Some findings from our survey have important implications for program directors. Nearly one-third of residents did not include moonlighting in duty hour reporting and 10.3% of residents reported moonlighting overnight prior to fulfilling regular residency duties the following day, which may violate the 24-hour-maximum-continuous-shift or 8-hour-minimum-time-in-between shifts rules [12]. The prevalence of weeknight moonlighting remains nearly identical to that reported more than 20 years ago, prior to the implementation of common duty-hour requirements [2, 17]. Program directors may be underestimating the total work burden for a significant proportion of their trainees who do not report moonlighting and may be unaware of a smaller percentage of trainees violating specific duty-hour rules. Some residents may not be aware of the reporting requirements around moonlighting and might benefit from more explicit policies.

One of the more concerning findings from our survey is that only 55% of residents report available supervision at external moonlighting sites. From a training perspective, the perceived lack of supervision raises questions of the degree of oversight program directors should have in ensuring that moonlighting sites provide adequate supervision. Some programs may consider providing indirect supervision for residents who moonlight or requiring sites to provide available supervision for trainees who moonlight.

Our study has several important limitations. The overall response rate of 27.6% introduces the possibility of selection bias, with differences between those residents who chose to complete the survey and those who did not. Though we attempted to sample a diverse set of programs in terms of geography and size, we surveyed only 16 programs, all linked to large academic centers. Some notable geographic gaps in our sample include New York, California, and Texas, and our results may not be generalizable to residents in areas not sampled. Residents in New York and California may have higher financial burdens due to increased cost of living. Another limitation to our study is that the survey relied entirely on

self-report. Finally, the survey was also limited in the questions it was designed to answer, particularly regarding supervision.

In our sample, the prevalence of moonlighting among psychiatry residents who were eligible to moonlight was 50%. Despite most residents citing financial needs as the primary motivation for moonlighting, and in contrast to prior studies in other fields, we found no differences in perceived quality of life or financial distress among residents who moonlight and those who do not. Though this may suggest that perceived advantages of moonlighting do not meaningfully impact wellness, it also may imply that moonlighting may be a sustainable practice that does not increase distress among trainees, even those working an additional 20-40 hours per month. It may be that residents who are already coping well with the stresses of training are more likely to moonlight; thus, comparisons of those who moonlight and those who do not should be interpreted with caution. It is concerning that a substantial portion of residents do not report moonlighting in their duty hours, and a similar proportion report no supervision available to them. While most residents are aware of programmatic policies regarding moonlighting, program directors may benefit from providing greater guidance around including moonlighting in duty hour reporting, engaging in weeknight moonlighting in terms of updated duty hour guidelines, and ensuring the presence of supervision at moonlighting sites.

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Table 1.

Aggregated survey respondent demographic characteristics.

	All Respondents N=173	Respondents Eligible to Moonlight N=96	Eligible Respondents Indicating Moonlighting in Last Academic Year N=94 ^a		P-value *
			Eligible Residents Who did not Moonlight N=47 (0.50)	Eligible Residents Who did Moonlight N=47 (0.50)	
Age (mean ± SD)	30.6 ± 4.9	31.2 ± 5.7	30.4 ± 5.1	31.9 ± 6.4	0.298
Gender (N(%))					0.585
- Female	88 (0.509)	48 (0.50)	25 (0.468)	23 (0.489)	
- Male	83 (0.480)	46 (0.479)	22 (0.532)	22 (0.468)	
- Prefer not to say	2 (0.012)	2 (0.021)	0 (0)	2 (0.043)	
Relationship Status (N(%))					
- Single	48 (0.277)	25 (0.260)	13 (0.277)	11 (0.234)	-
- Partnered, living together	88 (0.509)	54 (0.563)	24 (0.511)	29 (0.617)	0.912
- Partnered, living separately	31 (0.179)	13 (0.135)	8 (0.170)	5 (0.106)	0.466
- Divorced	2 (0.012)	1 (0.010)	0 (0)	1 (0.021)	-
- Other	4 (0.023)	3 (0.031)	2 (0.043)	1 (0.021)	-
Have Children	40 (0.231)	27 (0.281)	13 (0.277)	14 (0.298)	0.476
Total					0.024
Household Income	3 (0.017)	0 (0)	0 (0)	0 (0)	
- < \$50,000 - \$50,000 -	95 (0.549)	45 (0.469)	30 (0.638)	14 (0.298)	
\$75,000 - \$75,001 -	27 (0.156)	21 (0.219)	10 (0.213)	11 (0.234)	
\$100,000 - \$100,001 -	19 (0.110)	12 (0.125)	3 (0.064)	8 (0.170)	
\$125,000 - \$125,001 -	14 (0.081)	12 (0.125)	4 (0.085)	8 (0.170)	
\$150,000 - \$150,001 -	1 (0.006)	0 (0)	0 (0)	0 (0)	
\$175,000 - \$175,001 -	2 (0.012)	1 (0.010)	0 (0)	1 (0.021)	
\$200,000	10 (0.058)	3 (0.0313)	0 (0)	3 (0.064)	
- > \$200,000 - Prefer not to say	2 (0.012)	2 (0.021)	0 (0)	2 (0.043)	
Educational Debt	129 (0.746)	71 (0.74)	32 (0.681)	37 (0.787)	0.181
Non-educational Debt	88 (0.509)	58 (0.604)	26 (0.553)	31 (0.660)	0.883

* P-values for comparisons between respondents eligible to moonlight who did and those who did not moonlight, controlling for training program and post graduate year.

SD: standard deviation

^aTwo non-respondents

Table 2.

Resident ratings of financial stressors, quality of life, and work-life balance by moonlight stratification.

	All Respondents N=164 ^d	P-value [*]	Respondents Eligible to Moonlight Who Moonlight N=45 ^d	Respondents Eligible to Moonlight Who do not Moonlight N=47	P-value ^{**}
Mean ± Standard Deviation					
Serious Financial Strain ^a	2.97 ± 1.25	0.172	2.96 ± 1.28	3.0 ± 1.04	0.333
Often Think about Finances ^a	3.88 ± 1.06	0.488	3.87 ± 1.04	3.98 ± 0.94	0.522
Financial Difficulties – Paying for Work Expenses ^a	2.59 ± 1.26	0.232	2.53 ± 1.31	2.62 ± 1.24	0.643
Financial Difficulties – Paying for Living Expenses ^a	2.30 ± 1.16	0.003 (negative correlation)	2.18 ± 1.11	2.30 ± 1.12	0.416
Financial Difficulties – Restricted in Leisure Activities ^a	3.31 ± 1.28	0.006 (negative correlation)	3.08 ± 1.22	3.30 ± 1.23	0.527
Confidence in Ability to Care for Patients ^a	3.72 ± 0.91	<0.001 (positive correlation)	4.16 ± 0.56	4.04 ± 0.81	0.919
Quality of Life ^b	3.95 ± 0.77	0.011 (positive correlation)	4.16 ± 0.64	4.02 ± 0.68	0.858
Work-life Balance ^c	3.5 ± 1.12	0.003 (positive correlation)	3.73 ± 1.05	3.57 ± 1.16	0.268

^{*} P-values for whether post-graduate year is a significant predictor, controlling for training program, presence of children, and relationship status of all respondents.

^{**} P-values for whether moonlighting status is significant predictor, controlling for post-graduate year and residency program of those who are eligible to moonlight.

^a Question scale from 1=strongly disagree to 5=strongly agree

^b Question scale from 1=very bad to 5=very good

^c Question scale from 1=very dissatisfied to 5=very satisfied

^d Smaller N's due to incomplete survey responses.