

# Opinions of Faculty Members on the Assistant Physicians' Use of Leave of Absence After Night Shift: A Survey Study

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## ABSTRACT

The opinions of the faculty members on the assistant physicians' use of leave of absence after night shift matter, given that they play an essential role in their training. In this context, this study was carried out to review the opinions of faculty members on the consequences of assistant physicians' use of leave of absence after night shift.

This single-center, cross-sectional survey study, based on voluntary participation, was conducted with the faculty members of Van Yuzuncu Yil University Faculty of Medicine between February and March 2023. The study population consisted of faculty members in surgical and internal medical science departments. Faculty members in basic medical science departments were not included in the study since assistant physicians in basic medical science departments do not work the night shift. The survey consisted of nine items with checkboxes on participants' demographic data and the consequences of assistant physicians' use of a leave of absence after night shift on the clinic's functioning, medical specialty training, patient turnovers, and relationships inside and outside the clinic.

Of the 137 faculty members, 98 (71.53%) faculty members, 46 in surgical medical science departments and 52 in internal medical science departments, participated in the survey between February and March 2023 in an electronic environment. Of the respondents, 76 (77.5%) were male, and 22 (22.5%) were female. The mean age of the participants was  $42.72 \pm 4.9$  (min. 34, max. 57) years. Of the 98 faculty members who participated in the survey, 84.0% and 79.6% stated that assistant physicians' use of leave of absence after night shift adversely affected the medical specialty training and the clinic's functioning, respectively.

In general, faculty members expressed the opinion that assistant physicians' use of leave of absence after night shift negatively affected the medical specialty training, the functioning of the clinic, and the work carried out in collaboration with other clinics. There is a need for more comprehensive studies on assistant physicians' use of leave of absence after night shift.

**Keywords:** Assistant physicians, Faculty members, Residency training, Medical specialty training

## Introduction

Medical education in Turkey is a challenging process involving pre- and post-graduate stages and continuous in-service training. The main step of this challenging process is medical specialty training, which begins after six years of medical school education. After completing medical school, doctors can opt-in to receive medical specialty training in the area of specialization they prefer according to the scores they get from the centrally conducted medical specialty exam. The medical specialty programs are carried out by universities and the Council of Higher Education (1).

The specialization process of assistant physicians is time-consuming, quite difficult, and tiring. This process includes spending an average of 4-6 years of training in the area of specialization chosen according to the score received from the centrally conducted medical specialty exam and successfully completing a thesis at the end of this training. A large part of

medical specialty training takes place in hospital settings in the form of on-the-job training. The most prominent features of medical specialty training are difficult working conditions and long working hours, night shifts, the requirement to work after night shift, and the stressful working environment (2).

There have been various debates about medical specialty training in Turkey in recent years. These debates are mainly about how to regulate assistant physicians' busy schedules and working conditions. On the other hand, there are also concerns that re-regulating assistant physicians' working conditions may disrupt their medical specialty training. Despite these concerns, the Ministry of Health amended the "Regulation on Specialty Training in Medicine and Dentistry" in 2022 to address the said debates. The most notable amendment to the said Regulation has been the addition of the article that reads, "Assistant physicians may not work night shift more than once every three days and more than eight times per month." Additionally, assistant physicians who work

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night shift are prevented from working the next day (3, 4).

With these amendments to the Regulation, assistant physicians experienced significant relief in working conditions and hours. However, it is also likely that these amendments may disrupt the patient follow-up and treatment processes in the hospitals, which were pre-planned according to the number of assistant physicians available in the clinics. Each clinic has a unique workload. For this reason, the opinions of the faculty members who play a role in the training of assistant physicians on assistant physicians' use of leave of absence after night shift are important. Studies on this subject are limited in the literature. In this context, this study was carried out to review the opinions of faculty members on the consequences of assistant physicians' use of leave of absence after night shift.

## Material and Method

This single-center, cross-sectional survey study, based on voluntary participation, was conducted with the faculty members of Van Yuzuncu Yil University Faculty of Medicine between February and March 2023. The study protocol was approved by Van Yuzuncu Yil University Faculty of Medicine Clinical Research Ethics Committee (Decision Date: 17.03.2023, Decision No: 2023/03-05) prior to the conduct of the study. The study population consisted of faculty members in surgical and internal medical science departments. Faculty members working in basic medical science departments were not included in the study since assistant physicians in basic medical science departments do not work the night shift.

The survey consisted of nine items with checkboxes on participants' demographic data and the consequences of assistant physicians' use of leave of absence after night shift on the clinic's functioning, medical specialty training, patient turnovers, and relationships inside and outside the clinic.

**Statistical Analysis:** Descriptive statistics obtained from the collected data were expressed as mean  $\pm$  standard deviation and median with minimum and maximum values for continuous variables and as numbers and percentages for categorical variables.

## Results

According to the data obtained from the Office of the Dean of Medical Faculty, a total of 137 faculty members, 57 (48 male, 9 female) in surgical medical science departments and 80 (59 male, 21 female) in internal medical science departments, were working at

the Van Yuzuncu Yil University Faculty of Medicine between February and March 2023, that is, during the period when the survey was conducted. Of the 137 faculty members, 98 (71.53%) faculty members, 46 in surgical medical science departments and 52 in internal medical science departments, participated in the survey in an electronic environment. Of the respondents, 76 (77.5%) were male, and 22 (22.5%) were female. The mean age of the participants was  $42.72 \pm 4.9$  (min. 34, max. 57) years (Table 1).

Of the nine items included in the survey, the first three items queried participants' demographic characteristics, i.e., age, gender, and whether they are working as faculty members in an internal or surgical medical science department. The remaining six items queried faculty members' opinions on assistant physicians' use of leave of absence after night shift. Accordingly, the respondents were expected to mark the option they considered most appropriate from among five answer choices of "strongly agree," "agree," "partially agree," "disagree," and "strongly disagree."

Respondents' answers to the fourth item that is, "Assistant physicians' use of leave of absence after night shift adversely affected the functioning of the clinic, patient follow-up and patient turnovers" were as follows: 35.7% (n: 35): strongly agree, 29.6% (n: 29) agree, 18.4% (n: 18) partially agree, 13.3% (n: 13) disagree, and 3.1% (n: 3) strongly disagree.

Respondents' answers to the fifth item, that is, "Assistant physicians' use of leave of absence after night shift adversely affected the medical specialty training" were as follows: 48.0% (n:47): strongly agree, 21.4% (n:21) agree, 10.2% (n:10) partially agree, 16.3% (n:16) disagree, and 4.1% (n:4) strongly disagree.

Respondents' answers to the sixth item, that is, "Assistant physicians' use of leave of absence after night shift adversely affected the relationships inside the clinic" were as follows: 14.3% (n:14): strongly agree, 20.4% (n:20) agree, 37.7% (n:37) partially agree, 23.5% (n:23) disagree, and 4.1% (n:4) strongly disagree.

Respondents' answers to the seventh item that is, "Assistant physicians' use of leave of absence after night shift adversely affected the works carried out in collaboration with other clinics (patient transfers, consultations, etc.)" were as follows: 15.3% (n:15): strongly agree, 33.7% (n:33) agree, 32.6% (n:32) partially agree, 14.3% (n:14) disagree, and 4.1% (n:4) strongly disagree.

Respondents' answers to the eighth item, that is, "Assistant physicians' use of leave of absence after night shift adversely affected the motivation and

**Table 1.** Participants' Demographic Characteristics

		Min.-Max.	Median	Mean $\pm$ sd./n(%)
Age		34.0 - 57.0	42.0	42.72 $\pm$ 4.9
Gender	Male	34.0 - 57.0	42.0	76 77.5 %
	Female	35.0 - 48.0	41.5	22 22.5 %
Area of Medical Specialty Training	Internal Medical Sciences			52 53.1 %
	Surgical Medical Sciences			46 46.9 %

Abbreviations: min.: minimum, max.: maximum, s.d.: standard deviation

performance of assistant physicians" were as follows: 18.4% (n:15): strongly agree, 43.9% (n:33) agree, 17.3% (n:32) partially agree, 16.3% (n:14) disagree, and 4.1% (n:4) strongly disagree.

Respondents' answers to the ninth item, the last item on the survey that is, "Assistant physicians who use a leave of absence after the night shift regularly attend in-clinic training" were as follows: 3.1% (n:3): strongly agree, 16.3% (n:16) agree, 28.6% (n:28) partially agree, 31.6% (n:31) disagree, and 20.4% (n:20) strongly disagree (Table 2).

## Discussion

This is the first study to date investigating the opinions of faculty members on assistant physicians' use of leave of absence after night shift. Consequently, of the 98 faculty members who participated in the survey, 84.0% and 79.6% stated that assistant physicians' use of leave of absence after night shift adversely affected the medical specialty training and the clinic's functioning, respectively.

Medical specialty training varies between countries. It is carried out by non-governmental organizations, including specialist associations and medical associations in countries such as Canada, Portugal, and the USA, by public institutions in countries such as Sweden and Denmark, and by both non-governmental organizations and public institutions in countries such as in Australia, Norway, and the UK. In comparison, in Turkey, medical specialty programs are carried out by universities and the Council of Higher Education. Each country has created a model depending on its structure and needs. These models have positive and negative aspects compared to each other, but it is difficult to say that one is superior to the other (5, 6).

In medical specialty training, learning takes place in the form of on-the-job training during routine clinical functioning and tasks. The learning process involves regular training, supervised work, routinely held seminars, article reviews, and lectures. During this process, assistant physicians treat patients under the supervision of faculty members, with all relevant risks and legal responsibilities on the faculty members.

While the responsibility for assistant physicians treating the patients during the medical specialty training rests with the faculty members, assistant physicians take an active role in the functioning of the clinics. Assistant physicians carry the workload of clinics, especially outside of working hours. As a matter of fact, before the recent amendments made by the Ministry of Health to the Regulation on Specialty Training in Medicine and Dentistry, assistant physicians were working for approximately 30-36 hours without interruption due to the requirement of continuing to work after the night shift. Assistant physicians often cited these long and intense working hours as the biggest obstacle to the goals they wanted to achieve. The amendments to the Regulation in 2022 limited working long hours and the number of night shifts. As a matter of fact, in 2011, the total weekly working hours of resident doctors in the USA were limited to 80 hours, and the weekly night shift hours to a maximum of 16 hours (7, 8).

The study conducted by Tanrıverdi et al. (9) investigating the effect of assistant physicians' not taking a leave of absence after night shift on their performance based on the opinions of assistant physicians found that the performance of assistant physicians working in surgical and internal medical departments reduced due to assistant physicians' not taking a leave of absence after night shift. In comparison, in this study, the opinions of faculty members, instead of assistant physicians, on the subject were queried. Consequently, it was found that 84.0% of the faculty members consider that assistant physicians' use of leave of absence after night shift adversely affects the medical specialty training completely or partially.

In another study conducted by Dörtüoğlu (10) with 237 senior medical faculty students, it was determined that the primary factors affecting the medical specialization preference of the students are whether they have to work the night shift and how often they should work the night shift. In comparison, this study determined that the faculty members consider that assistant physicians' use of leave of absence after night shift adversely affects their medical specialty training.

**Table 2.** Faculty Members' Opinions On Assistant Physicians' Use of Leave of Absence After Night Shift

	Strongly Agree n (%)	Agree n (%)	Partially Agree n (%)	Disagree n (%)	Strongly Disagree (n (%))
Assistant physicians' use of leave of absence after night shift adversely affected the functioning of the clinic, patient follow-up, and patient turnovers	35(35.7%)	29(29.6%)	18(18.4%)	13(13.3%)	3(3.1%)
Assistant physicians' use of leave of absence after night shift adversely affected the medical specialty training	47(48.0%)	21(21.4%)	10(10.2%)	16(16.3%)	4(4.1%)
Assistant physicians' use of leave of absence after night shift adversely affected the relationships inside the clinic	14(14.3%)	20(20.4%)	37(37.7%)	23(23.5%)	4(4.1%)
Assistant physicians' use of leave of absence after night shift adversely affected the work carried out in collaboration with other clinics (patient transfers, consultations, etc.)	15(15.3%)	33(33.7%)	32(32.6%)	14(14.3%)	4(4.1%)
Assistant physicians' use of leave of absence after night shift adversely affected the motivation and performance of assistant physicians	18(18.4%)	43(43.9%)	17(17.3%)	16(16.3%)	4(4.1%)
Assistant physicians who use a leave of absence after the night shift regularly attend in-clinic training	3(3.1%)	16(16.3%)	28(28.6%)	31(31.6%)	20(20.4%)

In a survey study conducted by Yılmaz et al. (11) on assistant physicians working in basic, surgical, and internal medical sciences departments, it was determined that 85% of the assistant physicians who participated in the survey did not have the right to take a leave of absence after the night shift and worked nonstop the next day. According to the study, one out of every three assistant physicians considers the absence of the right to take a leave of absence after the night shift as the most critical problem in their medical specialty training. In contrast, this study determined that the faculty members consider that assistant physicians' use of leave of absence after night shift adversely affects their medical specialty training.

In a multicenter study conducted by Tan et al. (12) on assistant physicians in 2012, it was determined that

assistant physicians have the opportunity to update their knowledge through seminars and case hours in today's world, where medical science is developing rapidly. The assistant physicians stated that the content and duration of their training were sufficient. In comparison, in this study, only 19.4% of the faculty members stated that assistant physicians regularly attend in-clinic training after the night shift, whereas 52.0% stated that assistant physicians do not attend in-clinic training after the night shift at all. Therefore, it is evident that the requirement of working after night shifts will create a deficiency for assistant physicians in terms of their professional development and updating their knowledge.

In a study evaluating the working hours of assistant physicians, it was found that assistant physicians who do not get sufficient sleep had severe arguments with

healthcare personnel and made more medical errors (13). From this perspective, it is possible to say that assistant physicians' use of leave of absence after night shift not only reduces medical errors made by assistant physicians toward patients and other employees but also increases patient and employee safety. In comparison, no inquiry was made in the said direction in this study. However, it was determined that the faculty members considered that assistant physicians' use of leave of absence after night shift completely or partially increased the motivation and performance of assistant physicians by 79.6%.

**Limitations of the Study:** Apart from its strengths, such as being the first study to date investigating the opinions of faculty members on assistant physicians' use of leave of absence after night shift, there were also some limitations to this study. The study's main limitations were that it was single-centered and that working in surgery or internal medicine was not taken into account in the statistical analyses. In this regard, more comprehensive, multicenter studies are needed in order to obtain the findings that will guide the medical specialty training in our country.

**In conclusion,** the medical specialty training process is time-consuming, quite difficult, and tiring. Assistant physicians' use of leave of absence after night shift has alleviated this difficult process and workload. However, the findings of this study indicated that faculty members, in general, consider that assistant physicians' use of a leave of absence after a night shift negatively affected the medical specialty training, the clinic's functioning, and the work carried out in collaboration with other clinics.

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**Competing interest:** The author declared no conflict of interest.

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