

RESEARCH  
ARTICLE

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**Clinical Record Keeping Education Needs in a Medical School and the Quality of Clinical Documentations****ABSTRACT**

**Objective:** In relation to clinic record keeping, we aimed to determine the need in the undergraduate education at our university and propose a program recommendation regarding the content of the training program to be implemented based on the needs analysis.

**Methods:** Qualitative descriptive research method was used. To determine clinical record keeping education needs, interviews were conducted with 10 faculty members working at the Faculty of Medicine in the 2022-2023 academic year, using a semi-structured form. In addition, a 17-question survey was administered to elicit the needs of the students attending the Faculty of Medicine.

**Results:** A total of 102 students participated in the study. Eighty-two (80.4%) students reported not having received any education on clinical record keeping. For the questions scored on a seven-point Likert scale, related to “how sufficient do you consider the clinical records you keep?” and “how comfortable do you feel when writing patient notes?”, the mean scores were calculated to be  $3.89 \pm 1.66$  and  $3.55 \pm 1.74$ , respectively. Ninety-two (90.2%) students considered it necessary to take a course on how to keep clinical records. Ten faculty members participated in the interviews conducted using a semi-structured form. During these interviews, emerging themes concerning the quality of clinical records were the comprehensiveness and usefulness of these records, and the use of appropriate language. When questioning the reasons for deficiencies in clinic record keeping, issues within the education system and, predominantly, a lack of training have come to the forefront. Our main guiding topics that could serve as references for the training programs to be conducted are the format, content, writing, and legal responsibilities arising from the records.

**Conclusions:** We identified the deficiencies and needs related to clinical record keeping in our faculty. Based on our results, we consider that the implementation of appropriate curricula and activities will increase the quality of clinical records.

**Keywords:** Medical Documentation, Clinical Records, Needs Analysis, Medical Education.

**Bir Tıp Fakültesinde Klinik Kayıt Tutma Eğitimindeki İhtiyacın Belirlenmesi ve Klinik Kayıtların Niteliği Üzerine Bir Çalışma****ÖZET**

**Amaç:** Klinik kayıt tutma ile ilgili olarak üniversitemizde lisans eğitimindeki ihtiyacı belirlemeyi ve ihtiyaç analizi sonucuna göre uygulanacak eğitim programının içeriğinde hangi konuların yer alması gerektiğine dair bir program önerisi sunmayı amaçladık.

**Gereç ve Yöntem:** Çalışmamız nitel araştırma türünde olup betimsel araştırma yöntemi kullanılmıştır. Klinik kayıt tutma eğitimi ihtiyacını belirlemek için 2022-2023 eğitim öğretim yılında Tıp Fakültesinde görevli 10 öğretim üyesi ile yarı-yapılandırılmış form aracılığıyla görüşmeler gerçekleştirilmiştir. Ayrıca Tıp Fakültesi öğrencilerinin ihtiyaçlarını belirlemek için 17 soruluk anket formu kullanılmıştır.

**Bulgular:** Çalışmaya 102 öğrenci katıldı. Katılımcıların 82’si (%80,4) klinik kayıt tutma ile ilgili eğitim almadığını belirtti. 7’li Likert tipi ölçekle değerlendirilen “tuttuğunuz kayıtları ne kadar yeterli görüyorsunuz” ve “hasta notu yazarken kendinizi ne kadar rahat hissediyorsunuz” sorularına verilen cevapların puanları ise sırasıyla  $3.89 \pm 1.66$  ve  $3.55 \pm 1.74$  olarak hesaplandı. Öğrencilerin 92 (%90,2)’si klinik kayıt tutmanın nasıl olması gerektiği ile ilgili ders almanın gerekli olduğunu düşünmekteydi. Yarı-yapılandırılmış formla yaptığımız görüşmelere 10 öğretim üyesi katıldı. Görüşmelerde klinik kayıtların niteliği ile ilgili olarak klinik kayıtların kapsamlı olması, kullanışlı olması, uygun dil kullanılması gibi temalar ön plana çıkmıştır. Klinik kayıt tutma açısından eksikliklerin sebepleri sorgulandığında eğitim sistemi sorunları ve yoğunlukla birlikte eğitim eksikliği ön plana çıkmıştır. Yapılacak eğitimler için birer yol gösterici olabilecek başlıklarımız kayıtların formatı, içeriği, yazımı ve kayıtlardan doğan hukuki sorumluluk olarak çalışmamızda öne çıkmıştır.

**Sonuç:** Fakültemizde klinik kayıtlar konusundaki eksiklik ve ihtiyaçları belirlediğimizi, ilerde buna uygun eğitim öğretim faaliyetlerinin gerçekleştirilmesinin klinik kayıtların niteliğini artıracığını düşünmekteyiz.

**Anahtar Kelimeler:** Tıbbi Dokümantasyon, Klinik Kayıt, İhtiyaç Analizi, Tıp Eğitimi.

## INTRODUCTION

Medical records and clinical documentation can generally be defined as note taking by physicians and other health professionals in relation to the patient's symptoms, history, laboratory and imaging findings, or treatments. Clinical record keeping forms the basis of many activities in healthcare delivery and research (1). High-quality medical records play a critical role in effective and timely communication and coordination between the in-hospital team and healthcare personnel in other institutions, thus laying the foundation for safe and efficient patient care (2). In addition, keeping medical documentation up-to-date and of high quality positively supports clinical and quality audits that aim to improve the delivery of healthcare services and patient outcomes (3). From another perspective, clinical records constitute a legal proof since they provide important evidence in cases related to health presentations that may be encountered (4,5). It is also important to keep accurate clinical records for financial reasons. Comprehensive and timely clinical documentation allows healthcare institutions to code and bill for transactions (6). Finally, in the literature, it has been stated that accurate clinical records support the reasoning and thought processes of physicians during diagnosis, examination, and treatment, and serve as a cognitive assistant (1).

In parallel with the importance of clinical record keeping, the literature indicates that young healthcare workers spend a significant part of their time keeping records (4). In a study conducted in Australia, young workers were reported to allocate 10% of their weekly work to the preparation of epicrisis and 13% to the preparation of other documents (7). Similarly, in a study conducted in the USA, it was stated that resident physicians spent 32% of their time on paperwork, and in another study, 67% of resident physicians were reported to spend more than four hours on clinical record keeping (8,9). In addition, in a study conducted with the deans of American and Canadian medical schools, more than 90% of the deans stated that the records kept by students should also be evaluated as part of medical records, since the exclusion of student records from medical clinical records would have a negative impact on the health system (10). In Turkey, these good medical practices are listed under the title "record keeping, reporting, and notification" in the undergraduate core education curriculum, and expected competence levels are specified as "performs [the task] in uncomplicated or common situations/cases" and "performs [the task] in complex situations/cases" (11).

When evaluated from all these aspects, a significant amount of clinical record keeping is undertaken in medical education during both the undergraduate education period and the postgraduate education period, and this affects the health system. Despite the important points emphasized in the literature and educational outcomes targeted throughout Turkey, to the best of our knowledge, there is no study on clinical record keeping in undergraduate medical education in our country. Therefore, in the current study, we aimed to determine the needs of clinical record keeping education in undergraduate programs at our university and present a proposal on subjects to be included in the content of such curricula according to the results of the needs analysis.

## MATERIAL AND METHODS

This study was approved by the Ethics Committee of Gazi University (Date: 26.10.2022, Number: E.484093) and designed with a qualitative descriptive research method. Data were collected in compliance with Helsinki Declaration. Purposive sampling was used for sample selection. To determine the clinical record keeping education needs, interviews were conducted with 10 faculty members working at the Faculty of Medicine in the 2022-2023 academic year, using a semi-structured form. In addition, survey created using Google Forms was administered to the students attending undergraduate programs at the Faculty of Medicine to explore their needs related to clinical record keeping.

The survey was designed by three investigators (EE, ÖC, IIB) and comprised a total of 26 questions. The survey was delivered to the six grade-final year students (282 Turkish medical program and 89 English medical program) at of the Faculty of Medicine our university online via social media and e-mail. All students in the medical faculty's final year were targeted for our study. Because they had finished all of their internship training in both theoretical and clinical aspects. Only the students who provided consent were included in the study. The survey contained three questions on demographic characteristics, seven questions on the history of clinical record keeping education, four questions on consultation request/response notes, and three questions on the students' general needs related to clinical record keeping education. Lastly, how comfortable the students felt while keeping clinical records/writing consultation notes and how competent they considered themselves to be in this area were questioned using a seven-point Likert scale (7-very competent/comfortable, 1-very incompetent/uncomfortable).

Experts in medical education were consulted on the extent to which the semi-structured interview form served the purpose of the study and its clarity

and applicability. Interviews were held with faculty members working at the Faculty of Medicine for at least one year. In light of the literature, faculty members were selected from the departments of the faculty where most consultation/examination requests were made (12,13). A voice recorder was used during the interviews, and then the interviews were transcribed. Two team members (EE, ÖC) independently reviewed and coded the faculty members reflections using the open-coding immersion-crystallization method (14). The team then decided on categories of codes within the data and matched the nomenclature for the codes. These categories were then organized into primary themes.

**Statistical Analysis:** Statistical analysis was performed using SPSS version 22.0 (IBM, Chicago, IL, USA). Descriptive statistics were applied to demographic and questionnaire data. The results were explained as the mean±standard deviation (SD) for continuous variables and percentage for categorical variables. SPSS was used for all statistical analyses.

## RESULTS

**Student Survey:** In this survey study, we reached a total of 105 students, of whom three were excluded because they did not provide consent for participation in the study. The survey was administered to the remaining 102 students, constituting 78 (27.7%) Turkish medical program and 24 (27%) students attending the English

medical program of the Faculty of Medicine of Gazi University. Of the students participating in the study, 50 (49%) were male and 52 were female (51%).

Only 20 (19.6%) of the participants stated that they had previously received clinical record keeping education. Of these students, five had taken courses on clinical record keeping for “less than one lesson hour”, eight for “one to three lesson hours”, and seven for “more than three lesson hours”. When these students were asked when they had received this education, one (0.98%) student responded as “second grade”, 14 (13.73%) students “fourth grade”, and three (2.94%) students “fifth grade”. Furthermore, six (5.88%) students reported that they had received clinical record keeping education during their internal medicine internship, two (1.96%) during their pediatrics internship, one (0.98%) during the problem-based teaching session, and three (2.94%) during their internships in different clinical branches, while the remaining two (1.96%) students did not remember it. Table 1 presents the detailed data on where the students learned to keep clinical records. For the questions scored on a seven-point Likert scale, related to how competent the students considered themselves in keeping clinical records and how comfortable they felt while writing patient notes, the mean scores were calculated to be  $3.89 \pm 1.66$  and  $3.55 \pm 1.74$ , respectively.

**Table 1.** Sources specified by students for learning how to write clinical records and consultation notes

Sources	Clinical records		Consultation/examination request notes	
	n	%	n	%
Theoretical lectures at faculty	10	9.80	0	0
Bedside teaching/patient visits at faculty	32	31.37	4	3.92
Training programs/courses outside faculty	0	0	8	7.84
Faculty members/their notes	9	8.82	94	92.16
Assistant physicians/their notes physicians	84	82.35	22	21.57
Peers at faculty	47	46.08	3	2.94
None (did not learn)	1	0.98	0	0.00

Table 1 summarizes the data on how the students learned to write consultation notes. Sixty-seven (65.69%) of the students who participated in the survey stated that they wrote the consultation notes themselves. The mean scores of the seven-point Likert responses to the questions on how competent the students considered themselves in writing consultation/examination request notes and how comfortable they felt while writing these notes were determined to be  $4.54 \pm 1.37$  and  $4.43 \pm 1.7$ , respectively. Ninety-two (90.2%) of the students thought that it was necessary to take courses on how to keep clinical records and write consultation/examination request notes. Concerning the question on how these courses should be

planned, for which the participants were allowed to choose more than one option, 67 (65.69%) responded as “small group sessions”, 46 (45.1%) “bedside lessons”, 17 (16.67%) “small group theoretical lessons”, and five (4.9%) “lectures and online lessons”.

The survey also included an open-ended question to elicit the students’ general views on clinical record keeping. Of the 14 participants who responded to this question, 12 had positive and two had negative opinions in relation to receiving education on clinical record keeping. Some of the student responses are given below.

S1: “I think clinical record keeping is very important, especially for internships. I believe that

it would be very beneficial to organize an applied/theoretical lesson on this subject at the end of the fifth term or at the beginning of the internship.”

S2: “I think that instructions on record keeping and the points that are considered important can be gathered in a single document as a guideline and distributed to the students.”

S3: “I don’t feel comfortable examining the patient and keeping records. I think this is because we were not sufficiently involved in clinical settings during our medical education. I think this problem can be resolved by assigning small [student] groups to clinical units from the first years of medical education.”

S4: “I don’t think [clinical record keeping] education is necessary because we sufficiently engage in processes such as anamnesis and consultation during both the internship and the traineeship. We learn from both our instructors and assistants how these processes are and should be.”

**Views of Faculty Members:** A total of 10 faculty members, four men and six women, from the departments of internal medicine, chest diseases, neurosurgery, emergency medicine, general surgery, gynecology and obstetrics, neurology, cardiology, ophthalmology, and radiology participated in the interviews conducted

with a semi-structured form. When the faculty members were asked whether they had received any education on clinical record keeping during their education, only one had received practical education during undergraduate studies, while two had received only practical education and one both theoretical and practical education during residency. Concerning whether clinical record keeping was included in the current curriculum of their faculties, it was determined that the internal diseases department offered a theoretical course and bedside practices, while practical education was offered by the emergency medicine department for senior students and the general surgery department for fourth-year students. However, the faculty members noted that this education was not fully structured or formal. The remaining seven departments did not provide any education on clinical record keeping.

**Quality of Clinical Records:** The faculty members were asked what they thought was important to achieve high-quality clinical records by taking their own records into account. Table 2 summarizes the data on the related responses. In relation to this subject, the most prominent themes were the records being “useful” and “short and concise”. Some participants’ views on these themes are given below.

**Table 2.** Views of faculty members concerning the quality of clinical records

The quality of clinical records	Views
Organized	Should be in a specific format
Short and concise	Should not include any unnecessary details
	Should be of reasonable length
	Should focus on the patient’s problem
Comprehensible	Should be clear for someone else that reads it
	Should be written in accordance with the knowledge level of other medical branches
Written in appropriate language	Should be written like an official document
	Medical terminology should be used
Useful	Should be useful for the relevant person
	Should contribute to the clinical process
	Should be written for purpose
Comprehensive	Should include all procedures that have been undertaken
	Should include the patient’s consent for the procedures performed

FM2: “I think that my notes serve the purpose. They must provide the basic necessary information, rather than overwhelming [the reader] with superfluous information that is not related to the main disease.”

FM5: “I don’t keep long notes, but they are definitely enough. I think nobody reads long notes. When I look at my own notes years later, I can easily access the information I want, but it is not unnecessarily detailed or long.”

**Deficiencies in Clinical Records Kept by Colleagues:** The faculty members were also asked about the deficiencies of the clinical

records/consultation notes kept by their colleagues in the hospital. Below are some excerpts from their responses.

FM1: “Sometimes the drugs used by the patient are not written down, or there is no information in the file concerning the side effects or toxicity of drugs used by the patient.”

FM4: “When we check the clinical follow-up of the residents, there are times we only see ‘today was good’ in their notes. Today is good! No record of any information on the clinical case.”

FM5: “Although grammar doesn’t seem very important, the way they [colleagues] write has poor readability. They use strange abbreviations in a way

that no one can understand. This is simply a waste of time.”

FM6: “They [notes] are very short and not detailed, and some information is missing. For example, the ultrasound report does not include all details; they prefer to write shorter reports. We love to talk; we communicate more by talking.”

**Table 3.** Views of faculty members concerning the deficiencies of clinical records kept by colleagues and students

Deficiencies of clinical records	Views
Non-comprehensive	Does not adequately explain clinical findings
	Does not include the patient’s medical history
	Does not include drugs taken by the patient
	Does not include information on the side effects or toxicity of drugs taken by the patient
	Not detailed enough
Not short and concise	Full of unnecessary information
Grammar deficiencies	Does not follow spelling rules
	Includes uncommon abbreviations
Disorganized	Does not present information in appropriate order
Incomprehensible	Not written in appropriate clinical language
	Includes uncommon abbreviations
Not useful	Consultation responses do not solve the problem
	Records are kept only out of obligation

**Reasons for Deficiencies in Clinical Records:** In the analysis of deficiencies in clinical records, five themes emerged: lack of education, problems in the education system, busy schedules, not keeping/inability to keep records timely, and

As revealed by these views, most faculty members considered the major problem related to clinical records to be the lack of comprehensiveness, which was addressed under a few sub-themes. In addition, other prominent themes that emerged were grammatical deficiencies and disorganized notes (Table 3).

defensive medicine. The prominent themes in this regard were busy schedules, problems in the education system, and lack of education (Table 4). Some of the related comments of the faculty members are given below.

**Table 4.** Views of faculty members concerning the causes of deficiencies in clinical records

Causes of deficiencies	Views
Lack of education	No training on how to keep clinical records
	No training on how to write consultation notes
Education system problems	Lack of student motivation
	Too many students
	Students wanting to prepare for the medical specialty examination
Busy schedule	Too many patients
	Heavy workload
	Not enough time to take notes
	Short patient examination times
Not taking/inability to take clinical records timely	Urgent tasks shorten note-taking time
	Notes can be collectively entered into the electronic record system at a later time
Defensive medicine	Unnecessary details given to avoid responsibility

FM4: “Even if you know the importance of clinical records, I think the working conditions are not suitable for this. For example, sometimes I can’t even write any notes on the clinical course in an emergency situation because I have to urgently request medicine for the patient from the system or someone comes to me for consultation. Unfortunately, in our working system, neither assistants nor attending physicians have any time frame allocated for note-taking.”

FM5: “Students do not get involved; some stand behind. Today, the number of students in practice groups is naturally high. It is even difficult for everyone to see the computer screen at once.

Moreover, senior students have an additional preoccupation: the medical specialty examination. They think that whatever you try to teach is useless; you can see how they think: ‘I could have solved two more test questions instead of being here and listening to you’.”

**Harms of Poor-Quality Clinical Records:** The faculty members were asked what harm poor-quality clinical records could cause. According to their responses, the major problem was that poor-quality clinical records led to a waste of time and could cause medical errors (Table 5). Below are some examples.

**Table 5.** Views of faculty members concerning the results of poor-quality clinical records

The results of poor-quality clinical records	Views
Waste of time	Same information needs to be obtained repeatedly due to the non-comprehensive nature of notes Patient loses time due to repeated procedures It is necessary to work overtime to correct notes
Medical errors	Treatment changes are overlooked Contraindicated situations can be overlooked Missing or incorrect notes cause misdiagnoses
Communication problems	Incomprehensible notes cause disagreement Illegible handwriting can result in misunderstanding.
Workload	Examinations are repeated at each healthcare institution Patient admissions increase Repeated consultations may be needed
Delayed diagnosis	Patient follow-up is delayed Information is forgotten if not comprehensive.

FM1: "Every time a patient visits, I take his anamnesis again. But I see that he visited many other doctors before, if not me. If proper clinical records were kept, it would not be necessary to question patients' medical history all over again."

FM4: "For example, when there is a patient with bleeding diathesis, we need to be careful, but if proper clinical records are not kept, necessary pre-operative information can be overlooked. Or, as another example, treatment may be changed in the medical order but other records may not be updated accordingly, which causes problems both during intra-departmental transfers and in consultations between branches."

**Contribution of Student Notes to Routine Clinical Practice:** Concerning whether the clinical records kept by the students could contribute to routine clinical practice, five of the faculty members had positive views and four had negative views, while one participant stated that this could

have both positive and negative effects. The sub-themes that emerged from the positive views of the faculty members were as follows: "benefits student learning", "facilitates routine clinical practice", "saves time", "reduces workload", and "reveals overlooked details". Among the sub-themes related to negative views were "difficult to supervise them under the current conditions", "absence of students' legal responsibilities", and "the high probability of errors". Another view was as follows: "Students should receive education and take clinical notes, but we should not take them into account during routine clinical practice."

**Education Subjects:** The faculty members were asked which subjects should be included in a possible education program on clinical record keeping. Under this heading, the prominent themes were "legal responsibility" and "the content of records" (Table 6).

**Table 6.** Views of faculty members concerning educational issues

Educational issues	Views
Legal responsibility	Obligation to keep records Malpractice concept Documents of legal/official nature
Format of records	Order of information presented in records
Content of records	Information to be included in records Information to inquire about Justification of what has been included in records Inclusion of diagnoses and indications of possible diagnoses
Writing style	Grammar Comprehensibility

FM1: "They are official documents, so one must be very careful. They have evidential value, but there is no awareness of it."

FM2: "All the test results should be included, but considering that they can also be used as legal documents in the registration system, diagnostic methods and justifications for the treatments applied should also be explained."

FM5: "All kinds of information are listed one after another. These documents should have specific a format, as in an essay with an introduction, a body, and a conclusion. You cannot simply begin a subject in the middle and present information in an illogical order. Education should be given on this subject."

When asked which academic terms such

education should be planned for, three faculty members responded as “residency and preclinical period”, three “residency and clinical period”, two “residency alone”, and two “preclinical period alone”. Five faculty members stated that practical education should be provided in the form of small group lessons. Five participants who considered that education should be offered for assistants stated that this should be in the form of theoretical and practical education integrated into orientation at the beginning of the assistantship.

#### DISCUSSION

In this study, we aimed to determine the need for clinical record keeping education by reaching the students and faculty members of Gazi University Faculty of Medicine. One of the most striking findings of our study was that both the students and faculty members stated that the medical faculty did not provide adequate education in clinical record keeping.

In this survey study, 80.39% of the students stated that they had not received any clinical record keeping training, and 4.9% had only attended a single class for less than one lesson hour. In the interviews conducted with the faculty members, only three stated that clinical record keeping education was offered by their departments, albeit not fully structured. However, despite all these educational difficulties, every medical school graduate is obliged to keep clinical records and somehow learns to keep records. This leads to the emergence of many incomplete and inaccurate records. In the literature, there are also other studies reporting that clinical record keeping education is lacking. In a study conducted with third- and fourth-year medical students, Lai et al. reported that 30% of the students had not received any formal clinical record keeping education, and 36% had received less than 30 minutes of this education (15). In addition, according to the literature, the post-graduate programs of many departments do not provide sufficient education on clinical record keeping (16,17).

When we inquired about how the students learned to keep clinical records and write consultation notes using a question allowing for the selection of more than one option, 82.35% of the students stated that they had learned how to keep clinical records by observing their assistants and 46.08% by observing their peers at the faculty, and these rates were 92.16% and 21.57%, respectively for writing consultation notes. In the core education program of Turkey, this competence is referred to as “record keeping, reporting, and notification” under the title “good medical practices”. This title contains the following headings: “clarification and obtaining consent”, “preparing epicrisis”, “preparing patient files”, and “preparing prescriptions”. The levels of these headings were expressed as “4”, which represents the highest level and indicates that the student “performs [the task]

in complex situations/cases” (11). However, despite the importance attached to clinical record keeping in the core education program, the students in the current study had mean scores of only  $3.89 \pm 1.66$  and  $3.55 \pm 1.74$  for feeling competent and comfortable in keeping clinical records, respectively. These mean scores and the fact that the majority of the students stated that they had learned how to keep clinical records by observing their assistants and peers show that the real situation is far from the educational target.

During the interviews with faculty members, themes such as the quality of clinical records, their comprehensiveness and usefulness, and the use of appropriate language came to the fore. In addition, the participants referred to the lack of comprehensiveness, incomprehensibility, and lack of usefulness as the main deficiencies encountered in this practice. Here, the key deficiency appears to be the notes not being comprehensive or containing incomplete information. These issues have also been addressed in the literature (18). In a previous study, it was reported that 27.4% of the students did not indicate the symptoms objectively, 90.5% did not state the diagnosis, and 98.72% did not include the plan in their notes (4).

When the reasons for the deficiencies in clinical record keeping were questioned, in addition to the lack of education, problems in the education system and busy schedules were prominent. Themes other than the lack of education can be considered national problems in Turkey. When evaluated from this perspective, education is the only area where we can intervene to improve the quality of clinical records. The majority (90.2%) of the students in this study stated that it was necessary for them to take courses on clinical registration and writing consultation and examination request notes. In the literature, as reasons for incomplete clinical records, similar themes and sub-themes have been described, including the overcrowded nature of hospitals, a lack of sense of responsibility in students, the absence of punishment-reward systems, and, most importantly, a lack of education (18). In many studies conducted, training programs were implemented to improve the quality of records. Some of these programs were in specific subspecialties, such as emergency department and the oncology department (15,19,20), while others focused on the record keeping of medical students in general (21,22). Although these settings had different curricula, content, and practices, they commonly reported an increase in the quality of record keeping as a result of the implementation of such programs (19-22). In the current study, we found that the format, content, and writing style of clinical records and the legal responsibility arising from these records are important subjects that can guide future training programs in this area.

Another finding of our study concerned how

the use of clinical notes taken by students in clinical records would contribute to the process. The faculty members had positive and negative views on this issue, which also seems to be a controversial topic in the literature. In one study, while some people in charge of education argued that the duration of education would decrease due to students being expected to write notes within clinical records, others stated that not allowing such documentation might be a problem in the integration of student participation into patient care (23). In another publication, it was stated that medical students should document their patient records as a part of clinical education, but this could only be achieved through the strict supervision and evaluation of student records (24).

The first limitation of our study concerns its descriptive design. Second, the results we obtained are significant only for our institution and cannot be generalized to the entire medical student population. Third, students' self-evaluation was based on subjective criteria. Quantitative studies on student proficiency can further elucidate this issue. Lastly, the number of faculty members we

interviewed was relatively low. Future studies can aim to reach more participants from a larger number of departments.

#### CONCLUSION

In this study, we aimed to reveal the deficiencies in clinical record keeping in our faculty by eliciting the views of students and faculty members. In the survey conducted with the students, it was determined that the education provided in the faculty was significantly lacking. Similarly, according to the interviews with the faculty members, a lack of education was the leading cause of deficiencies in the quality of clinical records. By further exploring the expected quality of clinical records and current deficiencies, we were able to identify subject areas that require improvement, which will be useful for future researchers planning training programs for clinical record keeping. We consider that the deficiencies and needs we identified concerning clinical record keeping in our faculty will facilitate the implementation of appropriate educational activities in the future, thereby improving the quality of clinical records.

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