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Efficiency of Patient Files in Periodontics and Oral Medicine Departments at Tehran Faculty of Dentistry

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Abstract

Background and aims. This study was undertaken to evaluate efficiency of patient files in the Periodontics and Oral Medicine Departments to determine the quality of the therapeutic services offered.

Materials and methods. The dental files of patients referring to the above-mentioned departments at Tehran Faculty of Dentistry were evaluated. There were 600 and 4000 files in the Periodontics and Oral Medicine Departments, respectively. Of the 4000 files in the Oral Medicine Department 400 files were randomly selected by a masked dental student. Four checklists were used for data collection, which were specific for each department, consisting of the topics covered in the files. Descriptive statistical tests were used for data analysis using SPSS software.

Results. The files in the Department of Oral Medicine had the highest mean of filled items, which is attributed to the limited number of items in the files. In the Oral Medicine Department no relation was found between student gender and the quality of files; however, the year of entry into the university was significantly related to the quality of the files. There was a significant relationship between gender and the year of entry into the university on one hand and the quality of files on the other. In the Periodontics Department half of the follow cases had been signed and confirmed by the instructors.

Conclusions. The results showed patient files are not sufficiently efficacious in the departments under study and the academic staff need to revise educational methods and remove unnecessary items from the curricula.

Key words: **Dental students, dentistry, documentation.**

Introduction

Bentin Based on the aims set for an educational and treatment center and in order to achieve the aims of each of the components of a medical training/educational center the medical records center should be regarded an infrastructure of the center regarding the needs of the community. Therefore, it is expected that the needs of this center should be considered in the overall programming processes of the treatment center so that the activities of this center would be oriented toward meeting the needs of the community. In this context, the first step is to determine the needs of the community and the last step is to improve the quality and efficiency of the medical records center, which is implemented through evaluation of the measures taken and the results achieved. In other words, the necessary data should be used to make a sound judgment about the efficiency, the executive plans, and the results achieved in order to direct and improve decision-making processes.[1]

Proper management is necessary in order to improve the quality of these services so that they would incorporate various aspects of efficiency and effectiveness in implementing different treatment processes.[2] One of these processes which is important is recording of data in patient files. Correct registration of data and filling of forms and specially designed questionnaires preserves valuable data and prevent possible manipulation of data.[3] These data can be used for the following purposes:

1. Designing of standard forms to prepare patient files
2. Facilitating access to medical records for research purposes
3. Facilitating access to medical records for legal purposes
4. Facilitating access to medical records for continuation of the treatment processes and protocols
5. Use of medical records for easy and fast access to patients medical records
6. Prevention of negligence in providing medical care

Therefore, data recorded in the medical files can indicate the continuation of care and treatment processes, playing an important role in patient care and follow-up. The effective role of medical records and reports in implementing and improving therapeutic aims comprise one end of the spectrum and lack of optimal use of medical records in therapeutic planning comprises the other end of the spectrum.

Medical records are important form several points of view:

Patients

All the patients are dissatisfied with their medical condition and may not be able to listen to all the details considering the lengthy description involved; in addition, they might not be able to relate a proper past medical history and their discomfort. In this regard, medical records will be the best reference source, resulting in patients' confidence and prevention of repeating the process. It will also save expenses.

Physician

Patient files help the physician arrive at a definitive diagnosis and function as a document to defend themselves in legal proceedings; they also serve to save time. The aim is to become aware of the patient's problem, the treatment rendered and its outcomes by glancing briefly on a single page of patient file and get information about the reason for patient referral and the activities carried out at the center during a specific period of time.

At present, research in various scientific fields is considered a powerful tool to evaluate the latest scientific achievements and researchers make judgments about the validity and value of scientific theories, diagnosis of problems and the technical capabilities of instruments.[2] Patient files are considered useful tools in research projects. Deficiencies in data and precise statistical analyses and reliance on the results of epidemiological studies of developed countries are common problems of scientific circles of developing countries.[4] Although attention to those studies is considered important, the results of those studies cannot be extended to developing countries because of profound differences in the economic, social and cultural situations between western and developing countries. Sorouri and Katani[5] carried out a retrospective study on the files of patients referring to the Department of Periodontics, Faculty of Dentistry, Qazvin University of Medical Sciences during 1995−2000. A total of 734 patient files were evaluated. The results showed that 30.8% of the patients had one item recorded in the patient history section, which did not help establish a relationship between this history and the periodontal disease due to the disparity of the data recorded. The highest prognosis percentage was related to "good prognosis" followed by no record about the prognosis concomitant with an inappropriate explanation.[5]

Khalesi and Sedghi Jahromi[6] emphasized the use of international classification systems for oral diseases

(ICD-DA) in the evaluation of the attitudes of the academic staff of Shahid Beheshti Faculty of Dentistry. The results showed that 29.3% of the academic staff under study did not make much use of dental files for clinical studies; however, 62−8% used specialized dental journals to a great degree. The low rate of referral of dental practitioners to unclassified patient files is attributed to limitations in retrieving data from the files and the low quality of the data recorded in the files.[6]

Raisi and Azizi[7] evaluated the designing of patient files and tried to present a proper pattern for such purposes in the treatment centers of Shahid Beheshti University of Medical Sciences. The results showed that the valuable plan of standardization of the forms of patient files is a long way far from reaching the optimal standards and has not attained its scientific status in the educational/therapeutic systems.[7]

Raisi and Masouri[8] evaluated filling and completion of medical files of patients hospitalized in three hospitals under the supervision of Tehran University of Medical Sciences. Regarding the usefulness of the data recorded by nurses for the use of physicians, the results showed that half the nurses under study believed that physician used these data to a minimum degree and only 26.7% believed that physicians used these data to a great degree. Almost half of the nurses believed that 53.97% of the data recorded in patient files can be useful for legal proceedings to a great degree.[8]

Fesharaki and Moradi[9] evaluated the level of use of medical files and records in clinical trials in Khorasan University of Medical Sciences (1991−1995) and reported that 75% of the respondents used medical records to carry out clinical studies. More than 68% of respondents believed that the data recorded in files are rarely comprehensive. If patient files are comprehensive and complete, they can be useful in clinical trials. Researchers believed that the patient medical file archive centers should receive more attention in relation to educated personnel, budget and necessary facilities so that they can better be used in clinical trials. Use of new technologies has improved the capabilities and potentials of the medical record archive centers to assist in clinical trials.[9]

Since dental practitioners are the most important health care professionals involved in the promotion of oral and dental health in the community, educational and research activities to promote community oral health is directed toward this group. It is obvious that any policy-making processes and changes in dental educational programs with the aim of eliminating possible deficiencies in the functions of medical professionals and making the dental community familiar with the novelties of the oral health field entails having a sound knowledge of awareness, attitudes and functions of dental students in relation to oral health and ways to promote it in the community.[10]

The main research source for dental students in dentistry is patient files in dental faculties; therefore, evaluation of these files is absolutely necessary to improve their efficiency and promote educational and research quality.[1]

In the same context, given the importance of the information recorded in patient files and the use of the data in acceleration and revision of treatment process, demonstration of the function of medical personnel, programming of health institutions, and making sound decisions, it is necessary that patients files be complete from every point of view. In addition, what make these files valuable are the exact registration of data and the possibility of registering basic information in them; otherwise, the aim of medical records is not achieved. Data recorded in the main forms is of particular importance in patient identity and diagnostic and therapeutic issues.[4]

Therefore, an important consideration is to complete the main forms of the files optimally. Recent surveys all over the country have indicated that the medical records and files of the majority of treatment centers do not have optimal quality, quantity and efficiency and cannot meet the data requirements and needs of the applicants.

Regarding the importance of completing patient files as the most initial step in the diagnostic procedure, an attempt was made in the present study to evaluate the quality and efficiency of patients files in two different departments in the Faculty of Dentistry, Tehran University of Medical Sciences. The aim of this review is to follow the items in patient files that are neglected by the students and related attends. After determining these items the attends can be informed of the results so that they can revise the educational process; on the other hand, if the items do not have any effect on treatment and educational processes and only waste the time of students and patients, they can omit them so that more qualitative and efficacious patient files would be achieved. Other factors evaluated were the effect of student gender and the year of entrance into the university on patient file completion quality. In addition, the effect of the number of items on completion quality of the files was evaluated. Finally, the procedural trends in each department were evaluated based on treatment plan.

Materials and Methods

The present cross-sectional descriptive/analytical study was undertaken to evaluate efficiency and completion rate and quality of patient files in the departments of Periodontics and Oral Medicine, Faculty of Dentistry, Tehran University of Medical Sciences. At first, the number of patient files in each department was determined; there were 4000 and 600 files in the Departments of Oral Medicine and Periodontics, respectively. Given the large number of files in the Department of Oral Medicine, 10% of the files were randomly selected by a masked student. Four special checklists were used to gather data from the files in each department; the checklists consisted of the items in the files, which the studies were expected to fill.

Direct visualization technique was used for data collection considering the subject of the study; therefore, data was collected by directly referring to each department.

Data was analyzed by descriptive statistical methods. Frequency distribution tables were used to evaluate and describe file completion data. In each table, the number of completed and incomplete items was presented along with the relevant percentages. Chi-squared test was used to compare the completed items separately in terms of student gender and the year of entry into the university; Fisher's exact test was used when necessary. In addition, independent t-test and one-was ANOVA were used to compare means of completion rate of items between male and female students and also between the students who had entered the university in different years. In cases in which distribution of item means was not normal, Kruskal-Wallis test was used. Bonferroni test was used for multiple comparisons. Statistical significance was defined at $P<0.05$.

The following ethical considerations were observed:

- The data in the files were considered confidential and were not disclosed.
- Personal information was preserved and not disclosed
- Permission was obtained from the authorities in charge of the archives for data collection.

The results of the study were freely submitted to other researchers for use.

Results

The overall aim of the present study was to evaluate the efficiency and quality of completion of patient files in two different departments in the Faculty of Dentistry, Tehran University of Medical Sciences and to present a more appropriate pattern. Some specific aims were determined and the data collected in this study were presented using frequency distribution tables to achieve the aims of the study.

In the Department of Periodontics 593 files were selected and in the Department of Oral Medicine 10% of the 4000 files were randomly selected. The greatest number of patients in the Department of Oral Medicine had been admitted during the 2006–2007 educational year.

Students' entry years were 2000 to 2006.

Table 1. Frequency distribution of students completing patient files in each department in relation to gender and the year of entry into the university

Department		Gender		Year of entry						
		female	male	2000	2001	2002	2003	2004	2005	2006
Oral Medicine	No (%)	212 (40.5)	148 (58.1)	2 (0.5)	39 (10.7)	167* (45.7)	38 (10.4)	109 (29.9)	7 (1.9)	1 (0.3)
Periodontics	No (%)	387 (33.9)	201 (65.3)	-	213 (35.9)	367 (61.9)	7 (1.2)	-	-	-

Table 1 presents the number of students in each department separately for gender and the year of entry into the university. The number of female students was higher than the number of male students in both departments.

Tables 2 and 3 present the rate of completion of various items in both departments in terms of student gender. The results showed that of the 18 items in the files in the Department of Periodontics some items had been completed by female students better than those completed by male students, which include the following:

1. Patients' chief complaints (84.8% versus 78.1%; P=0.044)
2. Soft tissue (96.4% versus 87.1%; P<0.001)
3. Oral hygiene (86.8% versus 72.1%; P<0.001)

Some other had been completed by male students better than those completed by female students:

1. Prognosis (58.7% versus 41.1%; P<0.001)
2. Treatment protocol (41.8% versus 25.3%; P<0.001)
3. Treatment (62.2% versus 45.5%; P<0.001)
4. Surgery (9% versus 4.9%; *P*=0.055)
5. Occlusion (26.4% versus 18.3%; P=0.24)
6. Radiography (20.9% versus 14.5%; P=0.47)

Half of the items had been completed by male and female students to the same degree.

On the whole, some items had been completed less than 50%, which included surgery section (6.3%), the instructors' signature (6.1%), prognosis (47.1%), diagnosis (43.7%), occlusion (21.1%), radiography (16.7%) and periodontal findings (19%).

The lowest completion rate was related to surgery section and the instructors' signature, which will be dealt with in the "Discussion" with a reference to the reasons for their lack of completion. These items were followed by radiography, occlusion and periodontal findings in the Department of Periodontics.

Table 2. Evaluation of file item completion rate in the Departments of Oral Medicine in relation to student gender

File items (N=8)		Female (N=212)	Male (N=148)	Total (N=360)	*P* value
Chief complaint	No (%)	212 (100)	148 (100)	360 (100)	-
Medical history	No (%)	209 (98.6)	146 (p8.6)	355 (98.6)	1
***Chief complaint history**	No (%)	201 (94.8)	139 (93.9)	340 (94.2)	0.716
Intraoral examination	No (%)	208 (97.2)	147 (93.9)	355 (98.6)	0.652
Examination of lymph nodes	No (%)	206 (97.2)	147 (99.3)	353 (98.1)	0.247
Examination of TMJ	No (%)	205 (96.7)	143 (96.6)	348 (96.7)	≈1.00
***Treatment plan**	No (%)	197 (92.9)	142 (95.9)	339 (94.2)	0.229
***Instructor's signature**	No	180	137	317	0.27

Items which had been generally completed more than 90% in this department included medical history (98%) paint examination (98.5%), chart (97.4%), dental history (93.2%), soft tissue (93.2%) and attends signature (93.7%).

Results in the Department of Oral Medicine showed that the patients' chief complaint had been completed by all the male and female students (100%). Files completed by female students had more attends signatures (92.6%) compared to those completed by male students (84.9%), with statistically significant differences (P=0.027).

Male and female students had completed the medical history section in a similar manner (98.6%). In addition, both genders had completed TMJ section almost similarly.

Table 3 presents the means of number of items completed separately for the students' gender and the year of entry into the university in the Department of Periodontics.

The means of items completed by female and male students were 10.66 (SD=2.25) and 10.08 (SD=2.91), respectively, with statistically significant differences (P=0.014).

The means of items completed by the students entering the university in 2002, 2003, and 2004 were 10.86 (SD=3.02), 10.23 (SD=2.41) and 10.43 (SD=3.21), respectively, with statistically significant differences (P=0.21), revealing major differences between students entering the university in 2002 and 2003 (P<0.05).

Table 4 shows follow-ups by students and signing of the files by attends; it shows that 81.5% of the students had signatures of the instructors in the files in 86−100% of follow-ups. In 14% of cases (81 students) had the signature of the instructors in 0−60% of the files. In half of the cases, all the follow-ups (100%) had the instructors' signature; in addition, on the whole 90% of follow-ups had the instructor's signature.

Table 5 shows the number of items completed in the files of both departments. In the Department of Periodontics, 47.2% (280) of students had completed 7−10 file items; only 3 students (0.5%) had completed all the items. Evaluation of the frequencies showed that the highest number of items completed in this department was 9 items, which consisted of 16 cases (19.6%).

Other findings of the Department of Peiodontics are: of 692 patients admitted into the department, 387 (65.3%) and 205 (34.6%) were female and male, respectively. The patients were 13−80 years of age and the majority were in the 20−55 age bracket. Patients' chief complaint item does not need any significance level determination.

In the Department of Oral Medicine, the majority of students (75.3%, 275 students) had completed all the

eight items of the files. Three students (8%) had completed 4 and 5 items and 18.6% (68) had completed 7 items. Other findings in the Department of Oral Medicine showed that of the patients evaluated, 227 patients (62.2%) were females and 137 patients (37.5%) were males.

There were 8 items in the files of the Department of Oral Medicine. The mean of the items completed in these files was 7.68 items (SD=0.62) (variation range=4−8). There were 18 items in the files of the Department of Periodontics. The mean of the items completed in these files was 10.42 items (SD=2.70) (variation range=3−18).

Comparison of the means showed that the mean of items completed in the Department of Periodontics was a long way from the number of items in the files of the Department of Oral Medicine.

The least standard deviation was observed in the files of the Department of Oral Medicine.

Table 5 presents the number of items completed in the files separately for each department.

Discussion

The general aim of the present study was to evaluate the efficiency and completion rate of patient files in the Departments of Oral Medicine and Periodontics during the 2007−2008 educational year. Evaluation of the number of items in the files of each department and the completion rate of these items showed that the Department of Oral Medicine had the highest rate of item completion (7.68) with the least standard deviation (0.68), which was attributed to the limited number of items in the files in this department compared to the Department of Periodontics. The highest standard deviation (2.70) was observed in the Department of Periodontics with a mean of 10.42 items completed. The item completion rate in the files of this department, with more items, was lower than that in the Department of Oral Medicine, with fewer items.

The results are discussed separately for each department.

Department of Periodontics

Table 3 shows that there were significant differences in the completion of some items between male and female students, including prognosis, treatment plan, treatment, surgery, soft tissue, oral hygiene, occlusion and radiography. Female students had completed the following items at a higher rate compared to male students: chief complaint, soft tissue, and oral hygiene. However, male students had completed the following items at a higher rate compared to female students: treatment plan, treatment, surgery, the instructors' signatures, occlusion, and radiography.

Table 3. Evaluation of file item completion rate in the Department of Periodontics in relation to student gender

File items (N=8)		Female (N=387)	Male (N=201)	Total (N=593)	*P* value
***Chief complaint**	No (%)	328 (84.8)	157 (78.1)	485 (82.5)	0.044
***Medical history**	No (%)	381 (98.4)	195 (97)	576 (98)	0.356
***Dental history**	No (%)	358 (92.7)	189 (94%)	547 (93.2)	0.558
***Diagnosis**	No (%)	163 (42.1)	94 (46.8)	257 (43.7)	0.281
***Prognosis**	No (%)	159 (41.1)	118 (58.7)	277 (47.1)	*P*<0.001
***Treatment plan**	No (%)	98 (25.3)	84 (41.8)	182 (31)	*P*<0.001
***Treatment**	No (%)	176 (45.5)	125 (62.2)	301 (51.2)	*P*<0.001
***Surgery**	No (%)	19 (4.9)	18 (9)	37 (6.3)	0.055
***Signature**	No (%)	23 (5.9)	13 (6.5)	36 (6.1)	0.80
***Soft tissue**	No (%)	373 (96.4)	175 (87.1)	548 (93.2)	*P*<0.001
***Oral hygiene**	No (%)	336 (86.8)	145 (72.1)	481 (81.8)	P<0.001
***Occlusion**	No (%)	71 (18.3)	53 (26.4)	124 (21.2)	0.024
***Radiology**	No (%)	56 (14.5)	42 (20.9)	98 (16.7)	0.047
***Periodontal findings**	No (%)	70 (18.1)	42 (20.9)	112 (19)	0.411
***Chart**	No (%)	379 (97.9)	194 (96.5)	57 (97.4)	0.302
Patient examination page	No (%)	382 (98.7)	197 (98)	579 (98.5)	0.5
***Instructor's signature**	No (%)	365 (94.3)	186 (92.5)	551 (93.7)	0.4

**P value was determined by Pearson's and chi-squared tests. In other cases P value was determined by Fisher's exact test.*

The least completion rate was related to the surgery section and the instructors' signatures. Since the surgery section is only completed when the patients need a surgical operation and the attend signs it, lack of its completion might be attributed to a lack of need for surgery because the surgery section completion rate was higher than that of attends signature.

Radiography section had only been completed in 16.7% of cases (98 individuals) and had the least completion rate after surgery section and attends signature; lack of a radiograph on behalf of the patients might be the reason why the items had not been completed because students complete the section only if the patient has a radiograph.

The cases which had been neglected in the periodontic files more than others were radiography, periodontal findings, occlusion, treatment plan, prognosis, diagnosis and treatment, in descending order. The reasons for lack of completion are lack of knowledge on behalf of the students about how to complete the items and also the effect of these items on the treatment plan. As a result, attends should pay more attention to this fact. Other items in the files had been completed more than 80%.

Another aim of the present study was to evaluate the relationship of patient file completion rate with the students' year of entry into the university. The results showed a significant relationship between gender and the entry year. Table 4 shows that this relationship might be attributed to the large number of samples, which is not significant from clinical and practical viewpoints and have only become significant in statistical analysis. The means of file completion rates were 10.66 and 10.08 by female and male students, respectively, i.e. the rate was higher in female students. It can be concluded that female students complete patient files more accurately compared to male students.

Table 4. Evaluation of patient file completion rate in the Department of Periodontics in relation to student gender and year of entry into the university

		No	Mean	SD	*P* value
Gender	Female	387	10.66	2.52	0.014
	Male	201	10.08	2.91	
Entrance year	2002	213	0.86	3.02	0.021
	2003	367	10.23	2.41	
	2004	7	10.43	3.21	

The majority of the students had entered the university in 2003 followed by 2002. The means of file completion rates were 10.86 and 10.23 in students entering in 2002 and 2003, respectively, indicating a higher completion rate in students entering in 2002. It might be concluded that senior students had completed the files more actually. Another factor might be a higher awareness level in such students of concepts of applications of each of the items in the files, i.e. as the students spend more years at the university their awareness about the file items and their importance increases. Another aim of the present study was to evaluate the attitudes of the instructors. As such, the instructors' signatures in patient files after each follow-up by the students were evaluated by using the signature/follow-up ratio. The results are presented in Table 5. The majority of the files (471) in the Department of Periodontics had been signed for follow-ups in 86-100% of the cases. In 81 files (14%) less than 60% of follow-up episodes had been signed by the instructors. An average of 90% of follow-ups had been approved and signed by the instructors, which is an indication of the emphasis placed on signing of the follow-ups by the instructors.

Another aim of the study was to evaluate the number of items completed in each file, which is presented in Table 6. The majority (280, 47.2%) of the files had 7−10 completed items of 18 file items, i.e. the majority of students had left almost half of the items incomplete and only three students (0.5%) had completed all the 18 items. The greatest completion rate was 9 items, which had been completed by 116 students (19.6). This is an indication that patient file completion rate in the Department of Periodontics was less than that in the Department of Oral Medicine, which might be attributed to the large number of patients in this department .

Department of Oral Medicine

Comparison of file items completed by male and female students in Table 6 shows that the only significant item was the instructors' signatures, which was less numerous in files completed by female students compared with those completed by male students. Chief complaint section had been completed by all the students and the item least completed was the instructors' signatures.

The instructors in this department place great emphasis on asking and registering patients' chief complaints; therefore, the students had filled in this item in the majority of files. After the instructors check the completion of files and the patient is referred (if necessary) to the Department of Oral Radiology, it is the responsibility of the student to prepare a treatment plan and have it approved and signed by the related attend. Lack of approval and

signing of the files is an indication that the student had not followed it.

Another aim of the study was evaluation of the relationship between the number of items completed and the students' year of entry into the university, which is presented in Table 2. There was a significant difference between female and male students, i.e. female students and the students entering the university in 2002 and 2004 had paid more attention to completing file item compared to male students and other students. On the other hand, students entering the University in 2004 had been more precise and accurate in completing files compared to those entering in 2002.

It can be concluded that students who had spent less time in the department had completed the files more precisely and with the passage of time importance of file completion has decreased in the students' opinion.

Evaluation of the completion of items in this department, which is presented in Table 3, showed that at least 4 items of the 8 items in the patient file had been completed. The highest completion frequency (75.3%) was related to the completion of all the 8 items. A total of 18.6% of students had completed 7 file items, indicating the proper attitude prevailing in this department regarding completion of patient files and the great attention paid by the attends to how the files are completed. Another reason might be the limited number of items in the patient file in this department compared to the Department of Periodontics, which has made it easy for students to complete the files.

Based on the results of the present study the following conclusions were made:

- In the Department of Oral Medicine, no relationship was observed between student gender and patient file completion; however, a significant relationship was observed between file completion and the year of entry into the university, i.e. students entering the university in 2004 had completed the files better than those entering in 2002.
- In the Department of Periodontics, female students had completed more items compared to male students and students entering the university in 2002 had completed more items than those entering in 2003 and 2004.

Evaluation of the relationship between the number of items and file completion rate showed that there was a relationship between the number of items in the files and the rate of completion. In the Department of Periodontics, with more file items, the file completion rate was less than that in the Department of Oral Medicine, with less file items. Evaluation of the treatment function of the two departments revealed that:

- In the Department of Periodontics half of the follow-ups had been approved and signed by the instructors.
- The patient files in the two departments under study were not of sufficient quality and efficiency.

Recommendations

In order to improve the efficiency of patient files, it is recommended that:

- In the Department of Oral Medicine, the instructors place more emphasis on the signing of patient files and follow the files more precisely to sign them.

- In the Department of Periodontics the attends place greater emphasis on completing items such as prognosis, diagnosis, occlusion, radiography and periodontal findings; in cases in which students do not complete these items due to lack of awareness, the attends should revise teaching procedures and if such items have no role in education and treatment procedures, remove the items from patient files.

Table 5. Evaluation of the approval of instructors at each follow-up by the students in the Department of Periodontics

Percentage of signature/follow-up	Frequency (N=593)	Frequency percentage
0-60	81	14
67-80	25	4.3
86-100	471	81.5

References

1. Susarla HK, Dentino KM, Kalenderian E, Ramoni RB. The reporting of race and ethnicity information in the dental public health literature. *J Public Health Dent* 2012 Aug 8[Epub ahead of print]

2. Farzianpour F, Monzavi A, Yassini E. Evaluating the quality of education at dentistry school of Tehran university of medical sciences. *Dent Res J (Isfahan)* 2011; 8(2):71-9.

3. Hein C, Schönwetter DJ, Iacopino AM. Inclusion of oral-systemic health in predoctoral/undergraduate curricula of pharmacy, nursing, and medical schools around the world: a preliminary study. *J Dent Educ* 2011; 75(9):1187-99.
4. Ahlers MO, Jaeger D, Jakstat HA. Concept of computer-assisted clinical diagnostic documentation systems for the

practice with the option of laterscientific evaluations. *Int J Comput Dent* 2010; 13(3):233-50.

5. Sorouri M, Katani S. A retrospective evaluation of the files of patients referring to the Department of Periodontics, Qazvin Faculty of Dentistry, during 1995-2000; A Dissertation for a Doctorate Degree; Faculty of Dentistry, Qazvin University of Medical Sciences.
6. Khalesi N, Sedghi Jahromi M. Evaluation of the attitude of the academic staff of Faculty of Dentistry, Shaded Beheshti University of Medical Sciences towards the necessity of the use of international standard classification systems of oral diseases. ICD-DA; 2002.
7. Raisi P, Azizi A. Evaluation of medical records in relation to principles of designing documents and presentation of appropriate patterns in the treatment/education centers of Shahid Beheshti University of Medical Sciences; A dissertation to receive an MA degree; 1999.
8. Raisi P, Masouri N. Evaluation of completion of medical files of patients hospitalized in three selective hospitals of Tehran University of Medical Sciences; A dissertation to receive an MA degree in Medical records; 1996.
9. Fesharaki M, Moradi G. Evaluation of the use of medical records in clinical trials in Khorasan University of Medical Sciences during 1991-1995; A dissertation to get an MA degree: Faculty of Management and Information, Iran University of Medical Sciences, Tehran; 1996.
10. Keightley AJ, Lucey SM, Leitch J, Lloyd RC, Campbell C. A pilot improvement project in hospital-based oral healthcare: improving caries risk assessment documentation. *Br Dent J* 2012; 212(2):E3.