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## **HANDWRITING LEGIBILITY AS CRITERION FOR BURNOUT**

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### **Abstract**

The article deals with the relationship between the legibility of dentists' handwriting and their gender, workload, length of service, burnout and pen ergonomics. 178 dentists and 315 students of the Bashkir State Medical University took part in the study. It has been proven that there is a direct correlation between the aforementioned factors.

### **Keywords**

Dentist – Handwriting legibility – Exhaustion – Burnout – Pen ergonomics

### **Para Citar este Artículo:**

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## Introduction

People all over the world note how illegible doctors' handwriting is. On the one hand, it is something to joke about, on the other hand, this problem requires a solution.

It is believed that doctors' illegible handwriting develops during the course of studying when one must quickly write down by ear a large amount of new information, which leads to the distortion of the established handwriting. This trend remains throughout the process of treating patients when there is suddenly a need to fill out a lot of paperwork during a limited time. As a result, the handwriting deforms again, becomes barely legible and differs significantly from the handwriting standards<sup>1</sup>. It is worth noting that, although they are rare, doctors with impeccable handwriting exist.

According to Spanish scientists who published the results of their observations performed in a general hospital, in 15% of cases, doctors' handwriting was nearly illegible<sup>2</sup>.

At first glance, the deterioration of handwriting seems paradoxical since the more one does something, the better at it one is supposed to become. However, in actual practice, as we can see, it does not occur. The reasons for the illegibility of doctors' handwriting are usually discussed by researchers rather than by the people to whom this "unique" handwriting belongs<sup>3</sup>. There are hardly any judgments by the future and practicing doctors about their own handwriting. We decided to investigate this matter by looking at it from different points of view.

## Methods

Due to its affordability, efficiency and opportunity to reach a lot of responders, we chose anonymous questionnaires as the main method of the study. The experimental method and the expert method were also utilized in the study. To obtain data for the experiment – handwriting samples – the respondents, while being in a familiar environment, were asked to quickly rewrite the following typewritten text: "Kto rasschityvaet obespechit sebe zdorove, prebyvaya v leni, tot postupaet tak zhe glupo, kak i chelovek, dumayushchii molchaniem usovershenstvovat svoi golos. Plutarkh" [the man who thinks to conserve his health by uselessness and ease does not differ from him who guards his voice by not speaking. Plutarch] (this sentence contains 29 letters of the Russian alphabet which amounts to 87,8% of the alphabet). We chose this text as this sentence is not complicated by terms and is understandable for everyone: doctors, students, experts from non-medical professions. The legibility and ease of perception of the text written by the respondents were assessed by the authors themselves, as well as by a special commission comprised of the following independent experts: S.A.P. – linguist, literary editor, V.G.Yu. – pharmacist in the pharmacy chain "Farmlend" and G.F.K. – People's Teacher of the Republic of Bashkortostan.

<sup>1</sup> N. V. Shepel, "O mekhanizme formirovaniya priznakov pocherka u lits, imeyushchikh meditsinskoe obrazovanie, v tselyakh ustanovleniya professionalnoi prinadlezhnosti ispolnitelya rukopisi", *Altayskii yuridicheskii vestnik*, num 2 Vol: 22 (2018): 147-153.

<sup>2</sup> F. Javier Rodríguez-Vera; Y. Marín; A. Sánchez; C. Borrachero y E. Pujol, "Illegible handwriting in medical records", *J. R. Soc. Med.*, Vol: 95 num 11 (2002): 545–546.

<sup>3</sup> V. A. Yumatov, "Problemy issledovaniya rukopisei, vpolnennykh v sostoyanii utomleniya i ustalosti, na sovremennom etape razvitiya pocherkovedcheskoi ekspertizy", *Voprosy ekspertnoi praktiki. Special issue* (2019): 753-758.

The obtained results were statistically processed by calculating the non-parametric  $\chi^2$  method through Pearson's test, Wilconxon's test, the Kruskal-Wallis test and the arithmetic mean. The software product MS Excel 10.0 was used to statistically process the data. During the analysis, tables and charts were compiled.

The object of the research was practicing dentists undergoing further training and occupational reeducation at the Department of Dental Orthopedics and Oral and Maxillofacial Surgery on the courses conducted by the Institute of Further Professional Education of the Bashkir State Medical University, as well as year 3, 4 and 5 students of the university.

The subject of the study: The handwriting samples obtained through questionnaires were transformed into qualitative and quantitative indicators for further statistical processing. The handwriting was evaluated based on gender, duration of service (from 1 year to 30 years and more), workload (part-time, full-time and time-and-a-half work). To establish if handwriting depends on the duration of service, the respondents were divided into four groups: 1–9, 10–19, 20–29 and 30 years and more in service.

For convenient statistical processing of expert evaluations, the text was divided into four groups by degrees of handwriting legibility: "impeccable", "good", "regular" and "poor" (Figure 1).

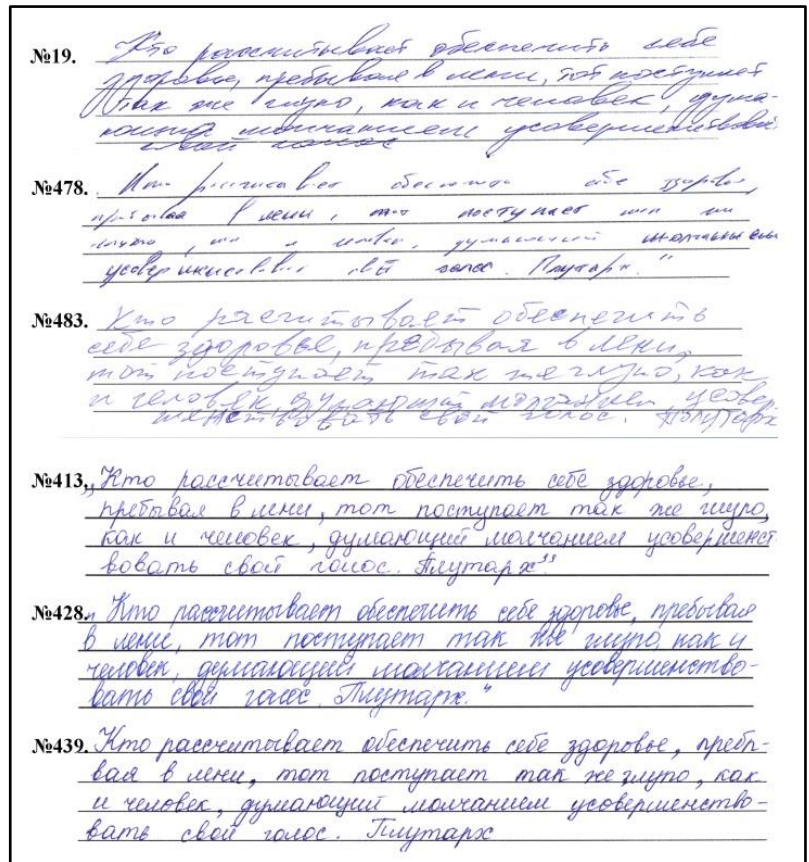


Figure 1  
 Samples of poor (№19, 478, 483) and impeccable (413, 428, 439) handwriting (according to the experts)

The goal of the study was to evaluate the handwriting of dentists and students of the Faculty of Dentistry based on their gender, duration of service and workload.

## Results and discussion

There were 493 respondents in the study, among them, 63.9% (315) students whose average age was  $22.0 \pm 1.9$  years. This group consisted of 66.7% (210) women and 33.3% (105) men. The second group was comprised of doctors – 36.1% (178) with the average age of  $41.2 \pm 11.4$  years, among them, 55.6% (99) women and 44.4% (79) men.

The doctors working full-time amounted to 74.7% (133), time-and-a-half – 13.5% (24) and part-time – 11.8% (21). No difference in workload distribution between men and women was identified ( $p=0.142$ ). The handwriting was divided into groups by degree of legibility and the following data were obtained (Table 1).

	Handwriting	Respondents		Experts	
		total	gender	total	gender
1.	Impeccable	1.8% (9)	f 33.3% (3) m 66.7% (6)	5.5% (27)	f 92.6% (25) m 7.4% (2)
2.	Good	19.3% (95)	f 82.1 (78) m 17.9% (17)	32.4% (160)	f 76.2% (122) m 23.8% (38)
3.	Regular	59.8% (295)	f 50.0% (177) m 40.0% (118)	36.9% (182)	f 51.0% (111) m 39.0% (71)
4.	Poor	19.1% (94)	f 54.2% (51) m 45.8% (43)	25.2% (124)	f 41.1% (51) m 58.9% (73)
	TOTAL		493		493

Table 1

Handwriting evaluation by the respondents and experts, by gender ( $p=0.000$ )

The difference in handwriting evaluation by the respondents and experts was significant ( $p=0.000$ ). All respondents admitted that they were experiencing a persistent decline in handwriting. Similarly, most students (67.7% (90)) and doctors (54.8% (51)) admitted that their handwriting changed from regular to poor. A smaller share of respondents noted that their handwriting changed from poor to worse. Among them, 14.3% were students and 30.1% were doctors. All in all, the doctors noticed the decline in handwriting in more than half of the cases – 52.2% and students – 42.2%. At the same time, women evaluated (admitted that) their handwriting was worse more often than men – 54.2% (51) versus 45.8% (43) ( $p=0.05$ ). However, according to the experts, men had worse handwriting than women – 41.1% (51) and 58.9% (73) ( $p=0.05$ ).

When the experts evaluated the handwriting as “poor”, over half of the respondents from that group – 53.2% (66) – evaluated their handwriting as “regular”, 37.1% (46) as “poor” and 6.4% (8) as “good” and in some cases – 3.2% (4) – even as “impeccable”. Obviously, the authors were used to their handwriting and for them, it was more legible than for the experts.

The expert evaluation of “poor” handwriting distribution according to gender is shown in Figure 2.

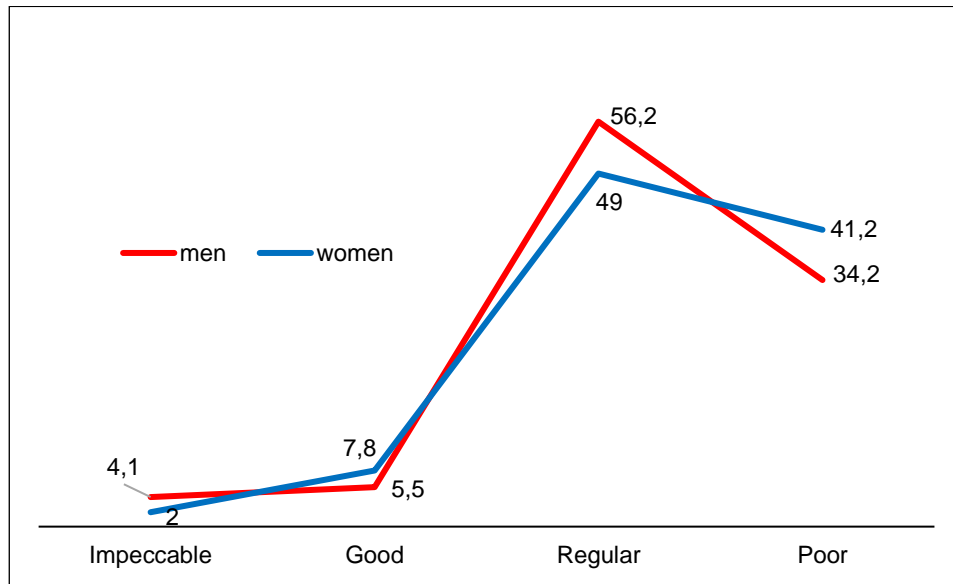


Figure 2  
Distribution of “poor” handwriting by gender (according to the experts, %)

The chart shows that men and women have the same vector of evaluating their “poor” handwriting but men tend to consider their “poor” handwriting to be good and in some cases impeccable. The share of women who admitted that their handwriting was “poor” was larger than that of men (41.2% and 34.2%). Therefore, we based further calculations on the expert evaluation of handwriting quality.

We dedicated the next part of the study to establishing a correlation between handwriting quality and workload (Table 2).

	Handwriting	Doctors' workload (%), n=178.		
		part-time ( $\chi^2=0.5$ ), n=21	full-time ( $\chi^2=0.000$ ), n=133	time-and-a-half ( $\chi^2=0.000$ ), n=24
1.	Impeccable	23.8% (5)	6.8% (9)	8.0% (2)
2.	Good	19.1% (4)	26.3% (35)	32.0% (8)
3.	Regular	33.3% (7)	39.1% (52)	24.0% (6)
4.	Poor	23.8% (5)	27.8% (37)	36.0% (9)

Table 2  
Expert evaluation of handwriting by workload

According to the experts, when working part-time, there was no connection between handwriting and workload ( $\chi^2=0.164$ ). Among the doctors working full-time, most had “regular” handwriting, fewer had “poor” handwriting, fewer still had “good” handwriting and the fewest had “impeccable” handwriting.

When it comes to the doctors working time-and-a-half, the most common was “poor” handwriting, “good” came second, then “regular” and the least common was “impeccable”. As we can see, doctors’ handwriting deteriorates with the increase in workload.

The profession of a dentist is believed to be the reason for poor handwriting by 23.5% (116) of the respondents ( $p=0.000$ ), among them, 13.6% (43) students and 41% (73) doctors. According to the study previously published by us<sup>4</sup>, we can say that the decline in handwriting can be used as a criterion of burnout for dentists.

Our next goal was to investigate the connection between “poor” handwriting and the duration of service (Table 3).

	Service duration	Poor handwriting
1.	1–9	33.3% (17)
2.	10–19	17.6% (9)
3.	20–29	19.6% (10)
4.	30 and over	29.4% (15)

Table 3

Relationship between poor handwriting and duration of service ( $\chi^2=0.000$ ),  $n=51$

As can be seen from the table, most respondents with poor handwriting in the studied group had one to nine years in service. This can be explained by the fact that there were initially students with poor handwriting in this group. As one can see, the number of doctors with poor handwriting grows with the increase in service duration.

The features of the questionnaire allowed most respondents to express their own opinion on the reason for doctors' poor handwriting. Having processed the data, we identified the following repeating results among many predicates, “overall exhaustion”, “shape of the pen” and the conclusion “it is not a doctor's job”. “Overall exhaustion” was identified as the reason for the decline in handwriting by 71.4% (352 people). Among them, 65.17% (119) dentists and 74.0% (233) students. The answer “shape of the pen” was chosen by 38.34% of the respondents, 32.58% (58) of them were doctors and 41.32% (131) were students. As we can see, the matter of the convenient shape of the pen is very important for writing, especially for students. The answer “my job is not to write” was chosen by 25.35% (125 people), among them, 37.08% (66) were doctors and 18.73% (59) were students. Evidently, over a third of the respondents did not see handwritten paperwork as their professional responsibility and did not strive to perform it carefully.

## Conclusions

1. A dentist's handwriting already begins to decline during student years due to the need to write down a significant amount of information by ear during a limited time.
2. Handwriting declines in proportion to the increase in the length of service and workload.
3. Men's handwriting is worse than women's.
4. The reasons for the decline in handwriting identified by the students of the Faculty of Dentistry and dentists were “overall exhaustion”, “non-ergonomic pens” and comments such as “it is not a doctor's job”.

<sup>4</sup> P. I. Petrov y G. G. Mingazov, “Sindrom emotsionalnogo vygoraniya u stomatologov”, Kazanskii meditsinskii zhurnal, Vol: 93 num 4 (2012): 657-660.

5. The study confirmed that out of the two options – to write carefully and legibly while doing paperwork and, as a result, stay at work till late at night or to write as well as one can to fit in the time allocated for one patient – doctors subconsciously choose the latter as a kind of psychological defense. Therefore, it can be said that the decline in handwriting legibility is one of the first signs of burnout for dentists.

## References

Javier Rodríguez-Vera, F., Marín, Y., Sánchez, A., Borrachero, C., Pujol, E. Illegible handwriting in medical records. *J. R. Soc. Med.*, 95(11) (2002): 545–546.

Petrov, P.I., Mingazov, G.G. Sindrom emotsionalnogo vygoraniya u stomatologov. *Kazanskii meditsinskii zhurnal*, 93(4) (2012): 657-660.

Shepel, N.V. O mekhanizme formirovaniya priznakov pocherka u lits, imeyushchikh meditsinskoe obrazovanie, v tselyakh ustanovleniya professionalnoi prinadlezhnosti ispolnitelya rukopisi. *Altayskii yuridicheskii vestnik*, 2(22) (2018): 147-153.

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