What are the problems physicians encounter in writing scientific manuscripts?**

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Introduction: Medical publishing is a hard task with its own rules and fundamentals. We aimed to determine the barriers affecting academic writing for Turkish physicians. We investigated whether the difficulties in writing differ according to academic degree and being a physician in surgical or internal medicine departments.

Methods: We conducted an online survey including physicians from 24 departments. The questionnaire inquired about demographics, occupational characteristics including age, gender, academic degree, years from graduation from medical school and department of speciality. Using multiple-choice questions, respondents were asked about the difficulties of academic writing.

Results: A total of 155 physicians completed the survey. Seventeen respondents (11.2%) felt that they are not interested in academic writing (Figure 1). Internal medicine department consisted of mostly pediatrics, family medicine, radiology, chest diseases, oncology, hematology, psychiatry, physical medicine and rehabilitation, genetics..etc. whereas surgical department included obstetrics and gynecology, general surgery, urology, pediatric surgery, ophtalmology, aesthetic plastic surgery..etc. The answers of internal medicine and surgical departments were not different statistically (Table 1). Most of the participants reported problems in finding financial support, obtaining permissions and a need to acquire skills regarding especially those related to data analysis, statistics and language. Need for financial support was reported by Associate Professor/Professors more than residents and fellows (p =0.04) (Table 2).

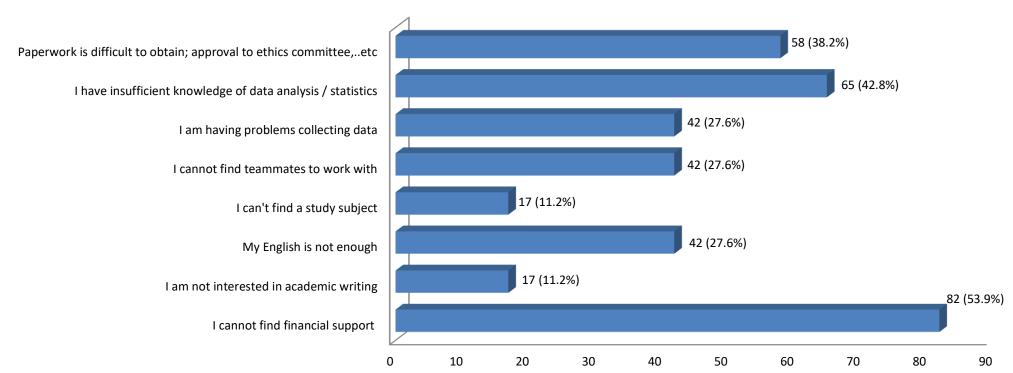


Figure 1: What are the problems physicians encounter in preparing scientific manuscripts? (n = 152)

Table 1: Comparison of the characteristics and the responses of internal medicine and surgical departments

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		Internal medicine	Surgical	
		Department	Department	
		n=93	n=57	<u> </u>
			median	
		median (min-max)	(min-max)	p value
Age (years)		44 (26-61)	46 (25-63)	0.735
Years of Practice $(n = 153)$		20 (1-37)	21.5(1-41)	0.786
		n (%)	n (%)	p value
Gender	Women	61 (65.6)	25 (43.9)	0.009
(n = 150)	Men	32 (34.4)	32 (56.1)	
What are the	e problems physicia	ns encounter in prepa	aring scientific	
manuscripts	? (n=147)			
I am not interested in academic writing		9 (10.0)	8 (14.0)	0.486
Language problems, My English		28 (31.1)	13 (22.8)	0.274
is not enough				
I can't find a study subject		11 (12.2)	4 (7.0)	0.310
I cannot find teammates to work		24 (26.7)	16 (28.1)	0.852
with				
I am having problems collecting data		24 (26.7)	18 (31.6)	0.521
I have insufficient knowledge of data analysis / statistics		35 (38.9)	26 (45.6)	0.420
Paperwork is difficult to obtain; approval to ethics committee, perrmissions for clinical research		37 (41.1)	21 (36.8)	0.606
I cannot find financial support (government, university hospital grant, industryetc)		54 (60.0)	27 (47.4)	0134

Table 2: The respondents' characteristics by academic title

		Associate Professor/Professor	Resident	Research fellow	p value
		Median (min-max)	Median (min-max) Median (min-max)		
Age (years)		50 (36-63)	42 (28-60)	30 (25-45)	<0.001
Years of Practice					<0.001
(n = 153)		25 (10-41)	17 (4-38)	5 (1-21)	
		n (%)	n (%)	n (%)	p value
Gender	Women	33 (68.8)	40 (47.6)	9 (45.0)	0.039
(n = 150)	Men	15 (31.2)	44 (52.4)	11 (55.0)	
What are t	he problems j	physicians encounter	in preparing se	cientific manuscripts?	(n=147)
I am not interested in academic writing		1 (2.1)	14 (16.7)	2 (10.0)	0.037
Language problems, My English is not enough		9 (18.8)	25 (29.8)	8 (40.0)	0.164
I can't find a study subject		1 (2.1)	13 (15.5)	3 (15.0)	0.054
I cannot find teammates to work with		10 (20.8)	26 (31.0)	6 (30.0)	0.443
I am having problems collecting data		12 (25.0)	24 (28.6)	6 (30.0)	0.878
I have insufficient knowledge of data analysis / statistics		15 (31.2)	37 (44.0)	13 (65.0)	0.035
Paperwork is difficult to obtain; approval to ethics committee, perrmissions for clinical research		20 (41.7)	27 (32.1)	11 (55.0)	0.139
I cannot find financial support (government, university hospital grant, industryetc)		33 (68.8)	40 (47.6)	9 (45.0)	0.044

Discussion: Clinical medicine and research are hard to combine with the daily workload and shortage of time. In this study, major barriers for academic writing were the need for support for funding, obtaining permissions, paperwork, statistical analysis and language. We hope that our results could help to recognize the shortcomings in medical education for academic writing.