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Retrospective Analysis of Psychiatry Specialization Theses Made Between 1981-2018 in Turkey

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SUMMARY

Objective: In this study, we aimed to qualitatively evaluate the views to the Psychiatry specilization theses, variables affecting publishing of these, and the relationship with the academic career of authors of these theses in Turkey.

Method: Theses were searched from the website of Higher Education Board Presidency National Dissertations Center using the terms "psychiatry, mental health and diseases". Only the theses with full texts were included in the study. The publications associated with these theses were searched using SCI and SCI-E, Google, Google Scholar and PubMed by using the names of authors and their advisors.

Results: We were able to find 910 theses. 748 of the 910 were completed in universities. The overall publication rate of the theses was 37.7%. 19.2% were indexed in PubMed, 28.5% in SCI and SCI-E and 31.9% in Google Scholar. Publication of a thesis was significantly associated with the field of research, the title of the advisor and whether the owner of the thesis had later become a faculty member. Residents who were trained at universities were more likely to publish as a first author. Being first author was associated with later academic career. In addition, those who continued their career as an academic continued to publish on a similar subject more than those who did not.

Conclusions: In this study, the type of the research, title of the advisor, enrolling an academic career were associated with the publication of the theses. We hope our results would help better publication of the theses in the future.

Keywords: Psychiatry, thesis, publication, education, research.

INTRODUCTION

Medical specialty training is essentially a postgraduate education curriculum provided in universities and the training and research hospitals under the supervision of the Medical Specialty Board (MSB), aiming to assist medical doctors to gain a license for special skills in diverse branches of medicine (Sevinç 2001, Karaman and Bakırcı 2010, Regulations for Specialty Training in Medicine and Dentistry 2014).

In Turkey, after completing the postgraduate training in any branch of medicine, physicians have to pass the specialty examination in order to qualify as a specialist. In accordance with the medical specialty regulations, the first requirement of entry to the medical licensing exam is to present a theses on the subject of their postgraduate specialty training (Regulations for Specialty Training in Medicine and Dentistry 2014). It is stated in the same regulations that the subject of the theses should be determined by the theses supervisor and the trainee medical physician (MD) in the first half of the specialty training (CMSE 2017).

As postgraduate education aims to raise scientists capable of problem solving by having acquired the mentality to produce, criticize and use knowledge, the planning and effective management of postgraduate training is closely related to the level of development of a country (Alhas 2006, Karaman and Bakırcı 2010). Postgraduate education should be aimed towards instructing the scientific attitudes, behaviors and the skills for competence in research techniques essential in the preparation of a theses as well as the knowledge, approaches and skills specific to the field of specialty training (Karaman and Bakırcı 2010).

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Submitting a theses plays a key role in the completion of postgraduate education in the world including Turkey. Postgraduate specialty theses are a great opportunity for scientific research. Preparing a theses helps a candidate to develop not only a scientific spirit, but also the ability to use reasoning and research techniques, enabling the acquisition of skills in analytical problem solving and critical interpretation of scientific literature in the long term (Ogunyemi et al. 2005). The significance of writing and publishing a theses becomes more pronounced upon considering that the analytical and organizational skills acquired in researching and writing a theses will serve specialist candidates for a lifetime (Cone and Foster 1993).

The step after the completion of the writing process is to explain the results. The scientific aspect of a theses can only be finalized with a publication in a peer-reviewed journal in the process that starts with it's presentation to the theses jury and subsequently to colleagues at a scientific congress (Salmi et al. 2001, Younes et al. 2005, Dhaliwal et al. 2010). Therefore, one of the important objectives of a theses should be not only gaining the title of a specialist license but also a beginning for contribution to the scientific field by way of publications. However, it may be necessary to consider the disadvantages of a theses being the first scientific text a researcher writes. Having been experienced in scientific publication activities before conducting a study for a theses may be advantageous in both writing the theses and transforming it into scientific publications.

At this point, the quality of the training offered to the specialist license candidates comes to the foreground. Although data on the subject relevant to psychiatry could not be reached in our country, it is thought-provoking that a recent survey carried out with thoracic and cardiovascular surgery research assistants reported that 32.9% of the participants had not received any training and that 67% had acquired most of the information in their fields from their superiors. In the same survey, it was found out that 51.4% of the research assistant physicians working in the Ministry of Health found their trainers inadequate, which was attributed to the heavy workload (Çıtak and Altaş 2012). The results of this study draw attention to the highly significant shortcomings of the postgraduate specialty training process.

It is known that nearly 5000 postgraduate specialty theses are completed annually in our country. Achieving as much increase in the quality as the number of the theses is of great importance for the scientific literature of our country (CMSE 2017). Here the significance of the specialty training process becomes more apparent. However, it is known that the desired level of theses-publication rates could neither be achieved in our country nor in the world (Sipahi et al. 2014).

Judgement of the transformation of a theses into a scientific publication of good quality cannot be based solely on the abilities of a research assistant. In this respect, it can be considered that the interaction of many factors such as the areas of interests of the individual, the facilities available in a given postgraduate training institution and the theses supervisor can affect the success in publishing a theses. A comprehensive study with data related to the theses generated in the branch of mental health and diseases in our country could not be reached.

It was planned in our study to examine the relationship between scientific publishing and academic careers and as well as with other possible factors such as time, location, subjects, research types and methods, the research supervisors of the submitted theses in psychiatry that can be effective in the theses publication relationship. Thus, it was aimed to provide guidelines that would benefit the theses supervisors and students pursuing specialty training.

METHOD

In this descriptive and cross-sectional study, 932 medical postgraduate specialty theses in the branch of psychiatry submitted for publication between 1981 and 2018, were reached at the Higher Education Committee Directorate National Dissertations Center (HECDNDC/ULAKBIM) website by entering the keywords "mental health and diseases" and "psychiatry" in the "department" section. Out of these 910 theses allowed access by their authors, thus not requiring the approval of the ethics committee, were included in this study.

Since the number of the theses submitted before the year 2000 were lower than in the subsequent years and given the changes in the academic incentive criteria, these were grouped in a single category when the theses were being listed so as to evaluate any differences that might have occurred after this year. In order to the balance the numbers of the theses as much as possible and considering the limitations in the publication rates of the theses submitted in 2018, analyses were made at four-yearly intervals.

The dates of completion and submission of the theses, the place where the theses research was conducted, methods used, topics included, academic title of the theses supervisor, whether or not the theses was published, how long after completion the theses was published, the databases containing the publications, ranking of the name of the postgraduate trainee researcher among the authors appearing in the publication of theses contents, pursuit of academic career after acceptance of the theses, continuation of research on the theses topic were investigated. The publications of the contents of the theses investigated were searched in SCI (Science Citation Index), SCI-E (Science Citation Index-Expanded), Google, Google Scholar and PubMed databases using the names of the theses author and supervisor.

When grouping the theses according to the type of the research, it was attempted to include all variations of research approaches made. In studies conducted using differing methods, mergers were made by paying attention to ensure that the studies with fewer examples were not lost among others. For example, the relatively few research studies such as controlled cross-sectional studies were not placed under the widespread cross-sectional studies but the heading of controlled studies which were also few in numbers. Although not being scientifically separate type of studies, research with drugs were kept in a separate category as they contained multiple research designs.

Statistical Analysis

The data were analyzed using the SPSS 22.0 package program. The Chi-square test was used for categorical values in addition to using descriptive statistical methods. However, in cases when more than 20% of the cells were less than 5, Fisher's exact test and the Monte Carlo option was activated for the multi-dimensional table application. In order to determine the source of the significant difference obtained, the adjusted standardized residuals were determined and analyzed by taking into account the values of ≥+2. The p value of < 0.05 was accepted for statistical significance.

RESULTS

Of the 910 theses included in the study, the numbers completed at the given intervals in years and the relationship between the theses and publications are given in Table 1.

Time taken for the transformation of the theses to publications was found to range from less than 1 year up to 13 years after the completion of the specialty training. The mean publication time was 2.83±2 years. While 748 (82.2%) theses were completed in public universities, 148 (16.3%) originated in the training and research hospitals affiliated with the Health Sciences Universities and 14 (1.5%) to private universities.

Table 1. Distributions of Theses by Years and Publication Percentages

Theses Year Range	1981-2000	2001-2005	2006-2010	2011-2015	2016-2018	Total
Number of theses (n,%)	55, %6	42, %4.6	285, %31.3	456, %50.1	72, %8	910, %100
Number of publications (n,%)	17, %1.8	16, %1.7	129, %14.2	170, %18.7	9, %1	341, %37.4

(x^2=30,41; df=4; p<0,01)
Number of theses (n): Number of theses completed within the specified time period, %: The ratio of these theses to the total number of theses
Number of publications (n): Number of publications in the specified time period, %: Ratio of these publications to total theses.

Table 2. Conversion Percentage of Theses to Publication According to the Research Type

Research Type	*Number of Thesis (n, %)	**Number of Publications (n,%)
Cross-sectional, retrospective	799, %87.8	280, %30.8
Prospective	20, %2.2	11, %1.2
Validity and reliability	16, %1.8	7, %0.8
Experimental	5, %0.5	2, %0.2
Epidemiology	26, %2.9	15, %1.6
Drug study	20, %2.3	12, %1.3
Comperative	18, %1.9	8, %0.9
Controlled	6, %0.6	6, %0.6
Total	910, %100	341, %37.4

(x^2=40.41, df=18, p<0.05)
*Number of Theses (n): Number of theses completed within the specified time period, %: The ratio of these theses to the total number of theses
**Number of publications (n): Number of publications in the specified time period, %: Ratio of these publications to total theses

When the percentages of the published theses were evaluated, it was seen that although the maximum number of publications were between 2011 and 2015 (170 of 456), the percentage of publications was higher between 2006 and 2010 (129 of 285).

Whereas majority of the theses were on cross-sectional and retrospective research, the percentage of publications on the contents of these theses were significantly much lower than those based on prospective, comparative and controlled research.

It was determined that 22.7% of 572 (63.2% of the total) theses relying on the most frequently used research methods of interviews, scales and questionnaires were transformed to publication, which varied as 8% of 176 (19.3%) theses with research based laboratory analyses, 3.7% of the 94 (10.3%) theses on research with neurocognitive / neurophysiological tests, 1.5% of 36 (3.9%) theses using imaging techniques, 0.6% of 13 (1.4%) studies on animal models, 0.4% of 11 (1.2%) theses utilizing EEGs, EMGs, ERPs, 0.1% of 3 (0.3%) theses on drug studies with humans and 0.2% of 3 (0.3%) theses utilizing neurological examinations, computer analyses and light therapy methods. There were not any publications from the 2 (0.2%) theses based on file reviewing. A statistically significant correlation between the research method used and transformation of the theses into publication was not demonstrated. In the theses comprising more than one research method, a hierarchy was followed in order not to lose track of the rarely used methods among the more widely used methods. Also, a distribution was made to bring to the foreground the relatively more interventional methods requiring institutional facilities and additional information to implement. For example, the theses using both questionnaires and laboratory analyses were evaluated with the theses placed under the heading of laboratory methods.

Table 3. Distribution of Theses Subjects by Institutions

Theses Subject	State University (n,%)	Health Sciences University (n,%)	Private University (n,%)
Psychotic Disorder	103, %11.3	32, %3.5	0, %0
Affective Disorder	159, %17.4	25, %2.7	5, %0.5
Personality Disorder	15, %1.6	1, %0.1	0, %0
Anxiety Disorder	76, %8.3	8, %0.89	2, %0.2
Sexual Dysfunction	27, %2.9	6, %0.6	0, %0
Forensic Psychiatry	2, %0.2	15, %1.6	1, %0.1
Dissociative Disorder	3, %0.3	0, %0	0, %0
*ADHD	32,%3.5	4,%0.4	1, %0.1
Addiction	47,%5.1	11, %1.3	2, %0.2
Somatoform Disorder	20, %2.1	1,%0.1	0, %0
Women Mental Health	33, %3.6	3,%0.3	0, %0
Consultation-Liaison	61, %6.7	4, %0.4	2, %0.2
Grief	4, %0.4	0, %0	0, %0
Sleep	10, %1	0, %0	0, %0
General Screening	16, %1.7	0, %0	0, %0
Psychopharmacology	6, %0.6	0, %0	0, %0
Trauma	15, %1.6	4, %0.4	1, %0.1
Suicide	13, %1.4	9, %0.9	0, %0
Dementia	7, %0.7	2, %0.2	0, %0
Burnout	7, %0.7	0, %0	0, %0
Attachment Theories	9, %0.9	8, %0.8	0, %0
**ECT	8, %0.8	2, %0.2	0, %0
Marriage	6, %0.6	0, %0	0, %0
Metabolic Syndrome	16 ,%1.7	2, %0.2	0, %0
Gero-psychiatry	8, %0.8	0, %0	0, %0
Eating Disorders and Nutrition	17, %1.8	1, %0.1	0, %0
Epilepsy	2, %0.2	1, %0.1	0, %0
Autism	3, %0.3	0, %0	0, %0
Behavior Disorders	6, %0.6	1, %0.1	0, %0
Cognitive Therapy	2, %0.2	1, %1	0, %0
Other	15, %1.6	5, %0.5	0, %0

*Attention Deficit Hyperactivity Disorder
**Electroconvulsive Therapy
(x^2=134.89, d=62, p<0.01, Fisher's Exact Test=118.38)
n: Number of theses on the subject, %: Ratio of these theses to the total number of theses

Investigating the theses topics chosen by the candidates for specialty license showed that approximately half of the theses were on affective disorders (189, 20.7%), psychotic disorders (135, 14.8%) and anxiety disorders (86.9%). Categorized under the heading of "other", only 1-3 theses were submitted on the topics of internet use, public health, transsexuality and gender dysphoria, ruminative thinking, group psychotherapies, self-esteem, hospitalization, adolescence, delirium, misophonia, phenomenological approach, gambling, effects of hypoxia, and tattooing. However, a statistically significant relationship between the topics and publication percentages of the theses was not determined. The topics were ranged according to the frequency with which they were studied. In this respect, grouping was done to prevent overlooking the rare topics and research groups and also to allow convenient statistical analysis. For example, sleep characteristics in geriatric populations were analyzed under the name of geropsychiatry, while the affective characteristics of transgender people were analyzed in the "other" category.

Statistically significant differences were found between the distribution of theses subjects according to the institutions where the theses were written (χ^2=134.89, df=62, p<0.01). More theses were submitted on topics of schizophrenia spectrum, forensic psychiatry, suicide and attachment theories in the health sciences universities while there were more theses based on consultation liaison topics in the state universities.

The relationship between the academic ranking of theses supervisors and publications of theses contents varied such that 176 (40.1%) of 438 theses supervised by professors, 82 (31.4%) of 261 theses supervised by associate professors, 82 (67.2%) of 122 theses supervised by assistant professors, 28 (31.4%) of 89 theses supervised by specialist physicians were observed to be published. The publication percentage of the theses supervised by assistant professors significantly differed from the others (χ^2=9.8, df=3, p<0.05) despite including less number of theses as compared to those supervised by full and associate professors (This has not been shown in a separate a table).

A statistically significant relationship was not determined between the institutions in which the theses were completed and the databases in which the publications were made. Table 4 presents the databases that published the theses and the distribution of the institutions in which the theses were completed. There are differences in total numbers because the same publication can be found in more than one of the different indexes and databases.

In this study, academic career refers to be working at a university at least as an assistant professor/MD faculty member. Information on this subject was reached by scanning the Ministry of Health/Higher Education Committee (HEC) database.

Significant relationships were determined between the percentage of theses publication and having an academic career (χ^2=56.25, df=1, p<0.01), being the first author in the publications from the theses (χ^2=10.01, df=1, p<0.01) and continuing to publish in the same field after specialty training (χ^2=238.55, df=1, p<0.01).

When evaluating the continuation of scientific publications after specialty qualification, whether multiple publications on the same topic were based on the data from a single study was not separately investigated.

Also, a significant relationship was determined between the institutions in which the theses were completed and the

Table 4. The Institutions Where the Theses Were Submitted for Publication and the Databases of the Publications

Databases	State University (n)	Health Sciences University (n)	Private University (n)	Test	df
PubMed	149	24	2	x^2=1.31	2
SCI ve SCI-E	231	36	3	x^2=3	2
Google Scholar	291	46	3	x^2=5.04	4

No statistically significant difference was observed

Table 5. Relationship of Academic Career and Thesis-Publication

Academic Car	Theses Not Published	Theses Published	Test x^2=56.25	df
Yes	70	112		*1
No	499	229		
Academic Car	**FNP**	**NFNP**	**x^2=10.01**	***1**
Yes	96	16		
No	158	68		
Academic Car	**PSF**	**NPSF**	**x^2=238.55**	***1**
Yes	135	47		
No	121	607		

Academic Car: Academic Careeer, FNP: First Name in Publication, NFNP: Not First Name in Publication. PSF: Publication in the Same Field, NPSF: Publication not in the Same Field
*: p<0.01

academic careers (χ^2=8.62, df=2, p<0.05). The data were not separately shown here.

DISCUSSION

When the 910 specialty license theses analyzed in our study were listed according to the years, a rising trend starting with 2000 was observed in the percentage of publications from theses contents (Table 1). This can be partly attributed to compliance of the theses with the academic incentive criteria introduced after 2000 by the HEC (Sipahi et al. 2014).

In this study, the highest number of theses and the highest percentage of publications made from the theses were found to be between 2011 and 2015 (Table 1) explicable by an increase in medical staff positions with TUS qualification in these years. However, although nearly half the number of specialty licenses were issued in the years 2006-2010, the number of publications from the submitted theses were not significantly less than that in the 2011-2015 period, indicating that the percentage of publications had decreased despite increased theses numbers, which cannot be explained here without the relevant data. Given that the mean time taken for publishing theses contents takes 2.83±2 years, the data for the 2016–2018 period is not yet available. Also, the evaluation of this period will have to be made under the altered regulations for submitting theses contents (IBP, 2019).

Although the highest number of theses were submitted in state universities, significant differences were not found between the percentage of publications issued at state universities and those issued at the private universities and the training and research hospitals affliated with the health sciences universitites (Table 4).

In this study, the value of 37.4% determined for the publications made from theses submitted for specialty license in psychiatry between 1981-2018 is well above the 6.9% reported in a large scale study for 22,625 medical license theses completed between 1980 and 2005 in Turkey (Özgen et al. 2011). In the same study, the percentage of publications made from theses in different branches were found to vary as 0.9% in family medicine, 7.3% in emergency medicine, 1.5% in public health, 4.2% in microbiology, 5.7% in urology, 6.8% in neurosurgery, and 5% in general surgery, 3.8% in ophthalmology and surgery, 4.2% in otorhinolaryngology and surgery. It was concluded that contents of 6.6% of the theses issued in the universities and 1.3% issued in public hospitals were published, which, although based on all branches of medicine, when compared to the results of our study, may indicate an important progress in state hospitals in eliminating the interinstitutional differences in the percentage of publications from the submitted theses.

Another study investigating theses on the branch of family medicine submitted between 1981 and 2008 reported that cross-sectional-retrospective research type was used in 92.8% of the theses and contents from 2.8% of the total theses were published in the PUBMED database, 2.1% in SCI and 5.7% in Google Scholar (Yaman et al. 2011). Investigation of theses submitted on microbiology between 1998 and 2007 found contents of 11.4% of these to be published, but the databases used were not analysed (Sipahi et al. 2014). A study with theses on public health completed up until 2009 reported a publication percentage of 11.9% in international indexes (Sipahi et al. 2012). Among other recent studies investigating publications of theses contents in journals indexed in SCI and SCI-E, the updated publication percentages were reported to be 32.7% in urology (Yüksel et al. 2018), 18% in neurosurgery (Öğrenci et al. 2016), 22% in general surgery (Mayir et al. 2017), 18.5% in ophthalmology and surgery (Bayramlar et al. 2015), 36.3% in otorhinolaryngology and head and neck surgery (Kalcıoğlu et al. 2016). Hence, it is pleasing that there is nearly a 6-fold rise in the psychiatry specialty branch theses in recent years, which is still not sufficient when considering the increases in other branches. A study analysing theses on emergency medicine completed between 1998 and 2013 determined that the contents of 5.8% of the theses were published in journals indexed in SCI and SCI-E (Çevik et al. 2015) which is much higher that the

percentage reported for theses completed in other branches of medicine and the reason for this increase was that 53.7% of the publications were based on prospective research, unlike the theses completed in other disciplines.

In our study, cross-sectional and retrospective studies made up 87.8% of all research types in the theses that were examined. While 35% of theses on cross-sectional retrospective research were published, this rate increased to 55% in prospective studies with a higher value of scientific evidence, to 44% in comparative research and to 100% in theses with controlled studies, there being significant differences between the implemented research types (Table 2). Thus, it should be remembered that when deciding on research design, choosing the research type with high value of scientific evidence may play an active role in the publication of a theses.

In this study, almost all of the analyzed theses with prospective, controlled and comparative research comprising animal and human drug studies, laboratory examinations, imaging and neurocognitive tests were carried out in universities. This can be attributed to the determining effect of the facilities provided by institutions on topics and especially on the methodology used in the research for the theses. Our study indicates that in the training and research hospitals affiliated with health sciences universities, theses research is predominantly based on interviewing, questionnaires and psychometric scales that are considered to have a lower value of scientific evidence. However, the use of the same method in the majority of theses completed in the state universities that constitute the center of gravity of the results of our study raises concerns about the limitation of scientific research opportunities in our country.

While there was not a significant relationship in our study between the topics of the theses and the percentage of the theses with published contents, a significant relationship was found between the institutions where the theses were completed and their topics (Table 3). It has been emphasized by the formal regulations that the subject of the research carried out for the postgraduate license theses should be determined by the student and the supervisor (Regulation on Specialization Training in Medicine and Dentistry, 2014) which is effective in determining that the research topic will be relevant to the field of interest of the student and the supervisor. The means and facilities of the institution and the possibility of reaching patients may also be factors affecting the choice of the topic for research. A good example to this would be that almost all (15/17) of the theses on legal psychiatry that were identified in our study were completed at Bakırköy Mental Health and Diseases Training and Research Hospital (BMHDRTH) affiliated with the Ministry of Health. It has the highest bed capacity for legal psychiatry among the training and research hospitals in Turkey (National Mental Health Action Plan 2011) providing a basis for postgraduate training for specialty in this branch of psychiatry (S.B.Ü. Bakırköy Prof. Dr. Mazhar Osman Mental Health and Neurological Diseases Training and Research Hospital 2017-2018 Training Program, 2019) as well as being the national advisory center on the topic. Concentration in this institution of the theses on legal psychiatry can be interpreted as a striking finding on the combined effect of many factors on choosing theses topics such as institutional opportunities, the role of the institution in training research assistants, and patient availability.

Theses supervisors are another important element in the transformation of theses into publications (Özgen et al. 2011). As there is not a title among the established academic specialist titles as a theses supervisor, the data on specialist titles in this study were obtained from the training and research hospitals affiliated with the health sciences universities In our study, the theses with the highest percentage of 67.2% publications were supervised by assistant professors, which is significantly higher than the publication percentage achieved by supervisors with other academic titles. In the hospitals of the health sciences universities the percentage of publication from theses supervised by specialist physicians is, despite the high work load, at the level of 31.4% which is equivalent to that achieved by the associate professors. This can be interpreted as a positive development in scientific publication attributable to academic expectations of the specialist physicians. The decrease in publication percentage of the theses supervised by associate professors can be ascribed to the satisfaction of academic expectations. Such an assumption is consistent with the results of a study that followed publications in emergency medicine which reported significant decrease in the number of publications after associate professorship compared to the number of scientific publications before associate professorship. However, if the only driving force behind making publications is the expectation of advances in academic careers, the quality and number of publications may be adversely affected (Çalışkan and Aksay 2012).

It was reported in a study examining international publication rates in our country that the ratio of the total number of international publications to the total number of faculty members in our country was 0.18 and that only one out of every 6 faculty members in our country had publications that were indexed in international databases (Ak and Gülmez 2006). On the other hand, in our study, unlike that with the associate professors, the publication percentage of the theses supervised by full professors was high. This can also be interpreted as a positive indicator of continuity of publication academically in the branch of psychiatry in our country. However, it is understood that a much higher number of professors undertake theses supervisor ship as compared to the assistant professors. This situation may also be valid in the branches of medicine other than psychiatry in our country (Yaman et al. 2011). Despite the great difference in numerical terms, the publication superiority of the theses

supervised by assistant professors may also indicate the extent to which contributions to scientific writing by young researchers working as specialists and assistant professors can increase when they are given the opportunity to participate in scientific publications.

Theses publication percentage was significantly higher when having an academic career than not pursuing an academic career. This is also one of the factors depending on the specialist candidate as the author of a theses. Similarly, having an academic career was significantly related with the theses author being the first name in the publication and continuing to publish scientific research in the same field of the theses after specialty training (Table 5). Moreover, a significantly higher percentage (92%) of the candidates pursing academic career were trained in the universities. Overall these results may indicate that candidates may have made a choice for the future while choosing where they will receive specialty training in the first place and that specialty trainees have more chances to gravitate towards pursuing an academic career at universities. Making such a choice by the postgraduate specialty trainees, who were the first authors in their publications, may also explain the more frequent pursuit of an academic career later in their lives as specialists. However, it should be noted that the impact of the physical and educational facilities of institutions where the training is given should not be overlooked, although we do not have sufficient data to assess this issue in this study. It may not be exaggerated to say that specialist candidates in training and research hospitals placed under heavy service loads are unable to participate in the scientific race on equal terms to begin with.

The low publication percentage of medical theses seem to be a major scientific problem in many developing and even developed countries (Sipahi et al. 2014). In this respect, the rates of transformation of theses to publications have been reported to be 17% in France (Salmi et al. 2001), 17.6% in Peru (Arriola-Quiroz et al. 2010), 23.8% in Finland (Nieminen et al. 2007) and 30% in India (Dhaliwal et al. 2010). In a research study carried out to determine the theses prepared during specialty training by physicians who successfully completed the training, to determine the difficulties they faced in the process of preparing the theses, to take their opinions and suggestions for preparing theses, and to offer recommendations, it was reported that, regardless of their academic titles and specializations, the physicians participating in the study stated that they had trouble finding time to prepare their theses, but that their theses made a scientific contribution to their areas of expertise, and that preparing the theses allowed them to improve themselves in scientific thinking, authorship and doing research (Saydam et al. 2014). In the same study, determination of the presence of problems at every academic level and area of specialty in getting proper training for research methods prior to pursuing research for the license theses is of utmost importance. For this reason, large-scale studies that will contribute to the field still maintain their importance.

CONCLUSION

In this study, variables such as the type of research the theses were based on, titles of theses supervisors, and pursuing academic careers, which depended on candidates and theses supervisors, came to the fore when investigating the factors affecting the publication of theses. Also, the importance of publishing a theses and the points to be considered for publishing theses were underlined for specialist candidates who are to prepare theses in the future, and an attempt was made to hold light for prospective young researchers and theses supervisors.

The failure to gain access to all psychiatry theses that had been completed between 1981 and 2018 emerges to be one of the important limitations of our study. This was because only the theses in the HECDNDC / ULAKBİM and YÖKSİS databases, which were permitted for access by the theses holders and uploaded in full, could be examined. Moreover, the data of the theses for 2016 and beyond could not be analyzed completely since generally it took 2.83±2 years to publish the theses.

Furthermore, it was not possible to reach information on the assets and facilities to support research, the structuring of ethical boards and the possible guidelines in this context used currently at the universities and the training and research hospitals in Turkey. Such differences may need to be considered as important factors to be kept in mind, as limitations or circumstances influencing the research environment.

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