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RESEARCH ARTICLE

Rates of publication of FCPS dissertations in international and national peer-review journals among residents at AKUH; A cross sectional review of 15 years

Ainulakbar Mughal,[1] Syed Akbar Abbas,[2] Abdul Basit Shah Vargad,[3] Muhammad Wasif,[4] Soubia Akhtar,[5] Ayesha Abbasi[6]

Abstract

Objective: To see the rate of publication of postgraduate residents' dissertation.

Method: The single-centre retrospective cross-sectional study was conducted at the Aga Khan University Hospital, Karachi, and comprised research publications from the residents of the departments of Surgery and Medicine who graduated between 2005 and 2020. The surgical subspecialties included Otolaryngology, Ophthalmology, Dentistry, General Surgery, Orthopaedics, Paediatric Surgery, Urology, Plastic Surgery and Cardiovascular Surgery. Data comprised demographics, current institution, current designation, information on dissertation/paper publication, topic of study, year of completion of dissertation, input from the research department, delay in exam due to incomplete dissertation and whether the paper got published in national or international journal. Data was analysed using SPSS 21.

Results: Of the 103 subjects, 70(68%) were males and 33(32%) were females, while 73(70.8%) belonged to surgical specialties and 30(29.2%) were from non-surgical specialties. Of the 22(22.9%) who were able to convert, 12(54.5%) publications were carried by national peer-reviewed journals, while 10(45.4%) were carried by international journals; 9(40.9%) unpaid peer review journals and 13(59.1%) paid journals. Delay in exam due to incomplete dissertation was faced by only 16(16.6%) candidates.

Conclusion: The rate of publication for resident dissertation was found to be low.

Keywords: Dissertation, Paper publication, FCPS dissertation, Residency, Synopsis. (JPMA 72: S-40 [Suppl. 1]; 2022)

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Introduction

According to Cambridge Dictionary, dissertation is defined as a long piece of writing on a particular subject, especially one that is done to receive a degree at a college or a university. According to the Accreditation Council for Graduate Medical Education (ACGME) guidelines, it is necessary for a residency programme to design a curriculum that helps the resident to excel in the knowledge of basic research principles, and ensures participation in the research process.[1] Reporting of resident scholarly activities, national and international presentations and publications are required under the ACGME guidelines.[1] Majority of postgraduates (PGs) in the field of medicine work as pure clinicians and are either less oriented or too preoccupied with clinical duties to perform research.[2,3] Moreover, there is a significant difference in research activities of residents in terms of their place of practice. Community-based government-run programme residents are less likely to publish than those working in private hospitals.[3] In Pakistan, the College of Physicians and Surgeons of Pakistan (CPSP) calls for mandatory research activity that the residents should undertake before they take up their exit exam. A synopsis of the proposed project is conceived by the candidate with the help of the supervising faculty at the teaching hospital. Once approved, the synopsis can form the basis of the future project in the form of a dissertation. This dissertation is then peer-reviewed by the Research, Training and Monitoring Cell (RTMC) at the CPSP. Only after this dissertation is made acceptable to the set standards, the candidate can appear in the exam. Another route to establishing a scholarly aptitude in graduating residents is to have at least two published papers in PubMed-indexed journals related to their specialty. To date, dissertation remains not only one of the most integral part of postgraduate medical education in Pakistan, but also qualifies as the most commonly adopted route to scholarships by medical trainees.[4]

The whole idea of inoculation of dissertation in postgraduate education is to teach the residents to formulate a research question, collect prospective data on the patients, present their research data as a work in progress, and come up with a conclusion as a dissertation on a given template.[5] It helps to promote evidence-based skills and enhances critical analytical thinking, which, in turn, have a positive impact on clinical practice.[2]

Medical research writing is not yet fully developed in

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Pakistan.[4] Most medical schools in Pakistan have inadequate teaching about the basic concept of medical research.[4] After the initiation of fellowship diploma by the CPSP, the residents have to gain knowledge base, adjust into the hospital environment, learn patient care, and develop surgical skills.[4] During this transition phase, a resident has to search literature to select a topic and come up with a synopsis proposal. At that point, the whole idea of synopsis writing comes as a formality that has to be done.[4] It is not mandatory to publish the dissertation, but it is one of the aspects that defines the quality of study done[5] in a comprehensive manner to address the pertinent issue, and its possible solution for a positive change in the existing practices.

Educational environment and designated research time has a great impact of productivity in residency.[1] There is a noteworthy positive interdependence seen in research productivity of departments with dedicated research hours, research funding and travel support.[6] In the evaluation of 1690 orthopaedic residents by Williams et al., remarkable parallelism was seen in the number of publications and dedicated research time.[6,7] Unexpectedly, having research publication as a requirement (for example, dissertation or two paper publication as per the system in Pakistan) has almost no correlation with academic productivity or increased interest in research.[6] According to a paper published in Turkey, publication rate of dissertation topic/thesis ranges from 1.2% to 53%.[5] In Pakistan, there is severe paucity of data on the subject.

The current study was planned to evaluate the rate of publication of residents' dissertation.

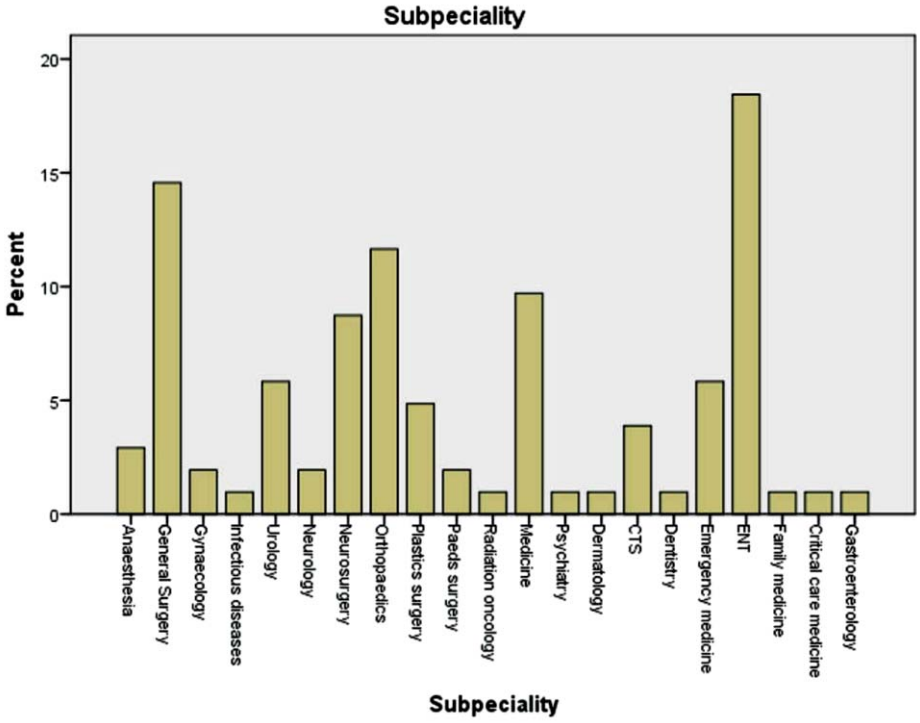
Materials and Methods

The single-centre retrospective cross-sectional study was conducted at the Aga Khan University Hospital (AKUH), Karachi, a tertiary care teaching hospital with more than 700 beds. The study comprised research publications from the residents of the departments of Surgery and Medicine who graduated between 2005 and 2020. After exemption from the institutional ethics review committee (ERC), a list of residents having graduated during the target period was obtained from the Department of Postgraduate Medical Education (PGME). All the residents were approached Using Google survey facility along with the consent form. Those who did not want to participate were excluded.

The data gathered included demographics, current designation, institution, current designation, information on dissertation, paper publication, topic of their study, year of completion of dissertation, help from the research department sought or not, and delays in exam due to incomplete dissertation. In case the paper was published, it was asked if the publication was a national or international peer-reviewed journal. If it was not published, possible reasons of failure were determined. The title of their research was obtained and checked online on PubMed and Goggle Scholar for publication. Data was de-identified and was entered on an Excel sheet for statistical analysis. Data was analysed using SPSS 21. $P<0.05$ was considered significant.

Results

Of the 290 residents, 103(35.5%) returned the survey form; 70(68%) males and 33(32%) females. A wide variety of subspecialties were represented in the sample (Figure). Of the 103 participants, 58(56.3%) were currently employed at AKUH, while 45(43.7%) were working elsewhere. There were chief residents 28(27.2%), registrars 18(17.5%),



CTS: Cardiothoracic Surgery, ENT: Ear-Nose-Throat.

Figure: Specialty distribution.

Table: Specialty-based categorisation and publication rates.

Dissertation Status	Surgical Candidates (n=73 70.8%)	Non-Surgical Candidates (n=30 29.2%)
Published	21(28.7%)	8(26.6%)
Not Published	52(71.2%)	22(73.3%)

fellows 15(14.6%), consultants 14(13.6%), instructors 13(12.6%), assistant professors 14(13.6%) and associate professor 1(1%) in the sample. Overall, 73(70.8%) subjects belonged to surgical specialties and 30(29.2%) were from non-surgical specialties.

Of the 96(93.2%) subjects who opted for dissertation writing, 74(77%) were not able to convert their dissertation into publication; 52(70.2%) from surgical specialties and 22(29.7%) from non-surgical specialties (Table).

Of the 22(22.9%) who were able to convert, 12(54.5%) publications were carried by national peer-reviewed journals, while 10(45.4%) were carried by international journals; 9(40.9%) unpaid peer review journals and 13(59.1%) paid journals. Delay in exam due to incomplete dissertation was faced by only 16(16.6%) candidates.

Of the total, 7(6.8%) participants had chosen publications rather than dissertation. Among them, 4(57.1%) faced a delay in their exams, and 4(57.1%) opted for an international, paid, peer-reviewed journals.

Discussion

The intention behind postgraduate academic activities is to inculcate the research culture amongst the new crop of clinicians and surgeons. The ultimate goal of writing dissertations is to get them published in peer-reviewed journals.[8] Traditionally, dissertation has been a part and parcel of the residency structure, but a transition has been observed.[9] In 2009, the CPSP gave the PGs the option to either do a dissertation or to publish two scientific papers in a PubMed-indexed journal after topic approval.[4,9]

The current study found an inclination among the PGs toward dissertation. It was chosen by 96 residents, and 80 of them completed the assignment in time, but only 22 were able to convert it into a publication; the publication failure rate being 77%. A study in India reported a publication rate of 32.5%.[8] In the current study, 70.2% surgical residents failed to get their dissertation published. A possible explanation is a compromise on surgical training which is behind the reluctance towards the research culture.[10]

A typical resident comes across numerous impediments during struggle for publication which may or may not stem from choices.[11] The current study found that lack of interest in research and publication, difficulty managing timelines, lack of funding, and shortage of time to collect data were the most prevalent hurdles for conversion of dissertation to publication. In contrast, literature has suggested that delay in publication rates were likely due to choosing journals not befitting the category of academic work, poor understanding of the submission guidelines and not fully appreciating the research intricacies.[12] In another study, the major impediments included political reasons, language-related problems, shifting priorities and the lack of academic writing guidance.[11] The current study highlighted that dedicated research slots, workshops and research courses were the factors affecting positively, but in an Iranian study, the most significant motives included the students' desire to publish their works for their graduation, padding their resume, to meet the academic institutions' requirements, and, lastly, to further promote their work and extend knowledge beyond the confines of their region.[11] Only 7 residents in the current study chose the option for getting two publications, and all of them were able to get their papers published, but the process of publication was completed in time by only 3(42.9%), and 4(57.1%) had to face exam delay.

To increase the scholarly yield of the residents, some of the programmes offer a dedicated year of research during the residency training. In this way, the residents get guaranteed time to experience basic or clinical research in the initial part of their careers.[13] The research-track residents were more likely to publish than the traditional-track trainees. Moreover, those who published in peer-reviewed journals during their residency programmes were more likely to publish in the later years of their professional life.[14] Similarly, interventions to increase the scholarly potential of the residents in training have been associated with better outcome.[15]

The limitations of the current study included the inability to take a homogenous sample size from the various specialties and their uniform temporal distribution. Moreover, potential confounders, like institutional bias, could not be addressed as it was a single-centre study.

Conclusion

There was a low rate of conversion from dissertation to publication. It is a significant shortcoming and a potential area of improvement of the said residency programme. Further research at national level is needed to determine the factors affecting publication rates among residents.

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References

1. Stevenson MD, Smigielski EM, Naifeh MM, Abramson EL, Todd C, Li ST. Increasing Scholarly Activity Productivity During Residency: A Systematic Review. Acad Med 2017;92:250-66. doi: 10.1097/ACM.0000000000001169.
2. Rothberg MB. Overcoming the obstacles to research during residency: what does it take? JAMA 2012;308:2191-2. doi: 10.1001/jama.2012.14587.
3. Ishiguro A, Nomura O, Michihata N, Kobayashi T, Mori R, Nishiya K, et al. Research during Pediatric Residency Training: A Nationwide Study in Japan. JMA J 2019;2:28-34. doi: 10.31662/jmaj.2018-0007.
4. Haider J. Problems encountered by postgraduate trainee during dissertation writing. Pak J Med Sci 2009;25:520-21.
5. Sipahi H, Durusoy R, Ergin I, Hassoy H, Davas A, Karababa A. Publication rates of public health theses in international and national peer-review journals in Turkey. Iran J Public Health 2012;41:31-5.
6. Khan NR, Saad H, Oravec CS, Norrdahl SP, Fraser B, Wallace D, et al. An Analysis of Publication Productivity During Residency for 1506 Neurosurgical Residents and 117 Residency Departments in North America. Neurosurgery 2019;84:857-67. doi: 10.1093/neuros/nyy217.
7. Williams BR, Agel JA, Van Heest AE. Protected Time for Research During Orthopaedic Residency Correlates with an Increased Number of Resident Publications. J Bone Joint Surg Am 2017;99:e73. doi: 10.2106/JBJS.16.00983.
8. Shukla D, Tripathi M, Devi BI. Conversion of thesis to peer-reviewed publication. Indian j. neurosurg 2019;8:093-9. DOI: 10.1055/s-0039-1694959.
9. College of Physicians and Surgeons Pakistan. Notification. [Online] 2009 [Cited 2021 December 25]. Available from URL: https://www.cpsp.edu.pk/files/rtmc/sec-cpsp-09-270.pdf
10. Grova MM, Yang AD, Humphries MD, Galante JM, Salcedo ES. Dedicated Research Time During Surgery Residency Leads to a Significant Decline In Self-Assessed Clinical Aptitude and Surgical Skills. J Surg Educ 2017;74:980-5. doi: 10.1016/j.jsurg.2017.05.009.
11. Rezaei S, Seyri H. Iranian doctoral students' perceptions of publication in English: Motives, hurdles, and strategies. J Appl Res High Educ 2019;11:941-54. DOI: 10.1108/JARHE-02-2019-0040
12. Islam MT. Hurdles for Journal Publications. English Lang Teach Educ J 2021;4:01-7.
13. Bernstein J, Ahn J, Iannotti JP, Brighton CT. The required research rotation in residency: the University of Pennsylvania experience, 1978-1993. Clin Orthop Relat Res 2006;449:95-9. doi: 10.1097/01.blo.0000224040.77215.ff.
14. Macknin JB, Brown A, Marcus RE. Does research participation make a difference in residency training? Clin Orthop Relat Res 2014;472:370-6. doi: 10.1007/s11999-013-3233-y.
15. Merwin SL, Fornari A, Lane LB. A preliminary report on the initiation of a clinical research program in an orthopaedic surgery department: roadmaps and tool kits. J Surg Educ 2014;71:43-51. doi: 10.1016/j.jsurg.2013.06.002.

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