A pilot study of MD (psychiatry) theses-based research

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INTRODUCTION

Research training is mandated by the Medical Council of India (MCI) for every MD/MS and DM/MCh programs in the country. This provision has been instituted so as to provide a holistic training to postgraduate students.

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Research training is important not only for those aspiring for, or having academic jobs, but for clinicians as well to enable them to interpret new research findings, and thus improve the clinical practice.¹ For academicians, the recent MCI guidelines have laid emphasis on good quality research which can be published in indexed journals.

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At present, there are 485 MD Psychiatry places in 177 medical institutions, which implies that there is this number of research projects being undertaken each year. As a conservative approach, assuming that every candidate spends 1 hour per day on work related to the thesis (formulating the protocol, assessing patients, analysis of the data, and writing the thesis), then, there are 177,025 person-hours being spent on research every year; this figure does not take into account the time spent by the chief guide or other co-investigators, or the patient-hours. As a substantial amount of time and resource are being spent on MD-based research, in theory, the output from it should be substantial. The current pilot study describes the basic aspects of MD-based research and its contribution to the Indian literature.

**MATERIALS AND METHODS**

The study was cleared by the Institutional Ethics Committee of KG Medical University, Lucknow.

As a pilot study, 5 Government owned medical institutions were selected for the survey. These were located at Lucknow, Varanasi, Rohtak, Mumbai, and Patna. The collaborators at these institutions agreed and contributed equally to the design of the study. Patna and Rohtak centers, at a later date, could not collate their respective data, and thus, the findings are limited to the information from the remaining centers.

The participating centers were requested to send information about MD theses completed between years 2001 and 2010, and details of publications until the end of the year 2015. The 5 years from 2010 to 2015 ought to be sufficient for any research to be published considering that publication in a journal can be a long-winded process, and sometimes can take as much as a couple of years.

A recording pro forma was developed specifically for the study and included the date of passing MD examination, the title of the study, names of the candidate and chief guide, and details of publication arising from this work. A copy of the pro forma is available from the author (SS) on request.

**Data collation and checking**

All the data at the respective centers were collated on a spreadsheet, which was then merged to form a single master chart, where all the records were allocated a unique ID.

From the title of the study, the following information was extracted: Type of the study, the primary psychiatric disorder being investigated, and subspecialty of psychiatry (e.g., Children and Adolescent, General Adult, Geriatric or Addiction Psychiatry, or nonpsychiatrically ill population). This data were independently filled by the collaborators for their respective centers.

The individual publications were searched (by AS) on Google Scholar (December 2016) for the accuracy of the data provided, and to fill in any gaps in the records provided from the centers. If both the abstract of the conference proceedings and full paper were published in different years, then the year of full publication was considered. The home web page of respective journals was checked for indexing status.

**RESULTS**

The analysis of 94 records has been presented as one student did not complete the MD program, and the record was excluded from the study.

The majority of the studies were undertaken mostly in the adult population \( (n = 65) \), and with lesser frequency in children and adolescents \( (n = 17) \) and geriatric \( (n = 11) \) populations; 1 study compared depression in adult and geriatric populations.

Ethical clearance was sought for all studies at centers 2 and 3, while only for 11% studies at center 1. This appears to be a procedural artifact as at center 1, all the submitted theses protocols are scrutinized by the Institutional Ethics Committee, and a formal application is not required for the same.

Research-oriented diagnostic criteria (International Statistical Classification of Diseases [ICD-10]-DCR = 11, Diagnostic and Statistical Manual of Mental Disorders IV [DSM-IV]/DSM-IV text revision = 56) was used in 67 studies, ICD10 clinical criteria in 19 studies, while another 2 used criteria specific to the research question (Alzheimers Disease and Related Disorders Association, and American Rheumatology Association criteria); 7 studies did not use any standardized diagnostic criteria. Only 3 studies had funding support (intramural = 2 and extramural = 1). Except for 3 (collaboration with other departments within the same institute \( (n = 2) \) or with other institutes \( (n = 1) \), all other were solo studies.

Most studies were clinic-based evaluations \( (n = 75) \), while others related to neuroimaging \( (n = 9) \), drug trial \( (n = 4) \), nonpharmacological trial \( (n = 3) \), and laboratory measures (metabolic syndrome \( n = 2 \) and thyroid functions \( n = 1 \)).

Out of 95 completed theses, only 32% were published as full papers [Table 1]. The average time duration between completion of the thesis and publication was 4 ± 2.8 (range 0–11) years, thus signifying that in the majority of cases, publication followed completion of the MD degree. Six publications were in journals with JCR Impact Factor; the full texts and abstracts had average impact factors of 1.406 and 4.054, respectively [Table 2].
DISCUSSION

The aim of this pilot study was to have an overview of the research being undertaken as a thesis for MD degree. The centers chosen for the study were not randomly selected, but on the consent of the collaborators, and there was no intention to compare the centers with each other. The main limitations of the study are retrospective collection of quantitative data, inability to evaluate the methodology of the studies (owing to workforce constraints) and the inclusion of a limited number of centers. The data indicate that most of the MD-based research are clinic-based one-point assessments, are without collaborations, are unfunded, and only a small proportion of this research is published in either non-indexed journals or in those with very low impact factors.

Table 1: General characteristics of studies

| Percentage |
|-----------|
| Ethical clearance obtained | 48% |
| ICD10 | 7% |
| Diagnostic criteria used |  |
| ICD10 DCR | 20% |
| DSM IV/-TR | 59% |
| Others | 2% |
| Funding Source |  |
| Intramural | 2% |
| Extramural | 1% |
| Intra-institute | 20% |
| Collaborations |  |
| Inter-institute | 5% |
| Abstract | 9% |
| Publications | 32% |

Table 2: List of Publications

| No. of Publications | Impact Factor | h5 index* |
|---------------------|---------------|-----------|
| Abstracts | Full Paper | | |
| Indian Journal of Medical Research | 2 | 1.446 | 41 |
| International Journal of Social Psychiatry | 1 | 1.361 | 27 |
| Indian Journal of Psychiatry | 2 | 6 | 22 |
| Asian Journal of Psychiatry | 1 | | 20 |
| Annals of General Psychiatry | 1 | | 18 |
| Sexual and Relationship Therapy | 1 | | 14 |
| Iranian Journal of Psychiatry | 1 | | 11 |
| Industrial Psychiatric Journal | 1 | | 10 |
| Delhi Psychiatry Journal | 4 | | |
| Global Journal for Research Analysis | 1 | | |
| Indian Journal of Association for Child and Adolescent Mental Health | 4 | | |
| Indian Journal of Behavioural Sciences | 2 | | |
| Journal of Indian Academy of Geriatrics | 1 | 1 | |
| Open Journal of psychiatry and allied sciences | 1 | | |
| Psychiatry Online (Priory Publications) | 1 | | |
| The British Journal of Psychiatry International | 1 | | |
| Bipolar Disorders | 1 | 4.882 | |
| Conference Proceedings | 2 | | |
| Indian Journal of Geriatric Psychiatry and Neurology | 1 | 2.127 | |
| Neurobiology of aging | 1 | 5.153 | |
| Quarterly Journal of Hellenics Psychiatric Association | 1 | | |
| Total publications | 9 | 30 | |

AJCR Thomson Reuter Impact Factor, *h5 index by Google Scholar (checked on 10-Dec-2016)
or PhD degree alongside the final 3 years of specialist training. The degree is supervised by a faculty member at a university department of psychiatry, and the candidates spend about 2 or 3 days per week undertaking research only. After completion of CCT and MD/PhD, the candidate is then eligible to take a faculty appointment. In contrast to the Indian system, in the UK, research is part of specialist training only for those who are interested in taking an academic career.

Whatever the reasons for nonpublication in India may be, the consequence is that the research work is unknown to others. Thus, it is possible that the index work is a replication, without it being known as such, of other research carried out in the past. It is equally probable that the index work may be replicated by another set of investigators at a future date. This also hinders discovery of new information, as the index investigators are not able to correct the deficiencies of the previous work. The practice of nonpublication is also unethical from the perspective of patients who have donated their time and is a waste of person-hours spent in collecting, collating data and analyzing data on the part of the student. It can be argued that undertaking thesis work is practice in research methodology and writing. However, if such methodology or writing is not subject to external review, then poor practices will propagate and multiply unchecked.

Thus, the findings from the present audit demand that a similar wider survey should be undertaken to encompass all specialist and super-specialist programs in the country. If the trend of the findings is similar to the present work, then the onus should be on the curriculum making body - MCI, either to drastically revise its guidance on mandatory research for postgraduate programs or abolish it all together. However, if MCI with its usual energy and competence fails to undertake nationwide survey, then specialty specific societies should commission such a survey. The MCI amendment of July 2017 (Section 13.9) has incorporated that at least 1 research paper should be published or sent/accepted for publication before the candidate can appear in the examination.[3]

At an individual level, the supervisors should take the responsibility for motivating the candidate to publish the work, and in fact, should play an active, rather than being passive, part in the manuscript preparation. DM/MCh students have the option of not writing a thesis, but publish two papers - either original research or review articles, in an indexed journal. Another option for MD candidates can be to undertake a detailed audit of the clinical practice(s) in their respective unit, rather than a formal research project. An audit will highlight common practice(s) in the unit, and the faculty members can take advantage of the findings for better patient care.

In the meanwhile, individual institutions, in the present age of electronic media, should start a repository to store the raw data and written thesis work and this repository should be freely available for searching on the internet. However, such open repositories are a minefield of intellectual property infringement, hence proper safeguard procedures should be incorporated from the very outset. As many universities in the West are using dissertation repositories, the guidelines for instituting the same should be easily available, without the need for “re-inventing the wheel.”

**CONCLUSION**

Majority of MD thesis based research is unpublished, and the remaining are published in journals which are either not indexed or have a low impact factor. Recalcitrance towards publication and/or poor quality methodology are probably responsible for low number of publications. The guidelines for the same need to be extensively revised by MCI, or this should not be part of MD curriculum.

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**Conflicts of interest**

There are no conflicts of interest.

**REFERENCES**

1. Aggarwal R, Gogtay N, Kumar R, Sahni P; for the Indian Association of Medical Journal Editors. The revised guidelines of the medical council of India for academic promotions: Need for a rethink. Indian Heart Journal 2016;68:51-53.
2. Available from: http://www.mciindia.org/InformationDesk/CollegesCoursesSearch/tabid/193/mid/933/. [Downloaded on 2016 Nov 25].
3. Medical Council of India Postgraduate Medical Education Regulations, 2000 (Amended till July 2017). Available from: https://www.mciindia.org/documents/rulesAndRegulations/Postgraduate-Medical-Education-Regulations-2000.pdf. [Last accessed on 2016 Nov 25].