

Perceptions of Importance of Thesis in the MD/MS/DM/MCh Residency Training Program

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ABSTRACT

Introduction

Thesis has long been considered an important part of postgraduate medical training in Nepal. It provides with structured exposure to research methodology, critical appraisal, and academic writing. However, with residents' demanding clinical schedules, the practical utility and clinical relevance of thesis writing have increasingly been questioned.

Methods

A cross sectional survey was conducted between July and October 2025 among current and former MD/MS/DM/MCh trainees from various hospitals in Nepal. A self-administered Google Forms questionnaire was developed after reviewing literature on post graduate thesis training. Survey link was distributed through professional social media groups and institutional network and participation was voluntary and anonymous. Data were analyzed descriptively to summarize response patterns within the study sample.

Results

A total of 85 respondents participated in the study. The majority (43.5%) were MD/MS degree holders, followed by DM/MCh graduates (29.4%), MD/MS residents (16.5%), and DM/MCh residents (10.6%). A large majority of respondents (84.7%) considered their thesis topic relevant to future practice, and 81.1 % perceived that thesis work had helped them academically to a moderate or significant degree. Nearly 90% reported a perceived improvement in research and analytical skills, whereas only 28.2% reported receiving adequate institutional support.

Conclusion

Strengthening mentorship, protected research time and institutional support may enhance the educational value of thesis writing regardless of whether it remains a mandatory component of residency training. Future studies using are needed to better assess the impact of thesis in postgraduate training.

Keywords

Thesis; postgraduate training; medical education; research skills; residency

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INTRODUCTION

Postgraduate medical education is now guided by competency-based frameworks that not only emphasize on clinical knowledge and care but also gives equal importance to research and evidence-based practice. International frameworks such as the Accreditation Council for Graduate Medical Education (ACGME) and the CanMEDS Physician Competency Framework recognize research and evidence based practice as essential component for specialist physician.^{1,2}

In Nepal, the Nepal Medical Council (NMC), requires a thesis submission as a partial fulfillment of degree requirements for all MD/MS/DM/MCh training, highlighting its importance in academic development.³ Thesis work is intended to provide residents with structured exposure to research methodology, literature review, study design, data analysis, interpretation of findings and academic writing.⁴ Through these activities, with the help of their guide, residents are expected to develop skills related to critical appraisal and scientific communication though it may not necessarily translate into publication or long term research productivity.

Despite its established importance within post graduate training, the practical utility of thesis writing has been debated. Residents often face demanding clinical workload, academic responsibilities and limited research time. Some trainees thus perceive thesis as a mandatory task rather than a meaningful academic work.⁵ In addition to that, inadequate mentorship, inconsistent supervision, and limited institutional support have been identified as important barriers to thesis completion.^{5,6} Given these concerns, there is a need to better understand how trainees perceive the role of thesis in their residency program. The present study was conducted with an aim to explore the perceptions and experience of current and former postgraduate trainees regarding thesis writing in Nepal.

METHODS

A cross sectional survey was conducted between July and October 2025 among current and former MD/MS/DM/MCh trainees from

various hospitals in Nepal. A self administered questionnaire was developed using Google Forms after reviewing literature related to postgraduate training, resident research experiences, mentorship, institutional support, and attitudes toward thesis requirement in medical education.

The questionnaire included domains covering demographic characteristics, thesis topic selection and timing, perceived academic and clinical relevance of the thesis, impact on research and writing skills, institutional support and mentorship, challenges faced during writing thesis and also if it needs to be a mandatory component of residency training

To establish the content validity, the draft questionnaire was reviewed by faculty members of Department of Surgical Gastroenterology involved in postgraduate medical education and research supervision, and revisions and modifications were made based on their feedback. A formal Delphi or other structured consensus method were not used. Participants were recruited using a convenience sampling approach through professional social media groups (Whatsapp and Viber) and institutional networks across multiple hospitals in Nepal. The survey link was distributed to 100 eligible doctors, including current and former MD/DM/MS/MCh trainees. Participation was voluntary and anonymous.

Responses from the doctors were collected in google form and then analyzed descriptively. Results are presented as frequencies and in percentages to summarize response patterns within the study sample. No inferential statistical tests have been applied, as the main aim of this exploratory cross sectional study was to describe the distribution of perceptions and experiences among respondents using descriptive statistics. Ethical approval for the study was obtained from the Institutional Review Committee of the Institute of Medicine, Tribhuvan University Teaching Hospital.

RESULTS

A questionnaire was sent to 100 doctors (current and former MD/MS/DM/MCh trainees), out of which 85 voluntarily responded and completed the survey resulting in a response

rate of 85%. Participant demographics and academic status have been summarized in Table 1. Most respondents were male (62.4%), and MD/MS graduates constituted the largest group (43.5%).

Table 1. Demographic and Academic Characteristics of Respondents (n = 85)

Variable	Category	n (%)
Gender	Male	53 (62.4)
	Female	32 (37.6)
Academic status	MD/MS graduates	37 (43.5)
	DM/MCh graduates	25 (29.4)
	MD/MS residents	14 (16.5)
	DM/MCh residents	9 (10.6)

More than half the respondents (48/85, 56.5%) reported that they had selected their topic independently, while 35 (41.2%) stated that the topic had been assigned by their guide or department and 2 (2.3%) received topic suggestions from their seniors (Table 2). The questionnaire did not specifically assess whether a self selected topic had been influenced by supervisor 's previous publication, ongoing departmental project or faculty research. In addition, 61 respondents (71.8%) reported finalizing their topic early in the residency.

Regarding the perceived relevance, 72 respondents (84.7%) considered that their thesis topic was relevant to future practice. However this represented a self reported perception rather than an objective assessment of clinical applicability. Academic utility was assessed using ordinal response categories ("a lot, moderate, little or none "). Twenty eight respondents (32.9%) selected "a lot" indicating that they perceived substantial academic benefit from thesis work, such as improvement and understanding of research methodology, critical appraisal and scientific writing. Forty one respondents (48.2%) reported moderate benefit, suggesting some perceived academic value but these categories were subjective and not assessed by validated scoring system and should be interpreted as perceived level of benefits rather than quantified learning outcomes.

Similarly, 82 respondents (96.5%) reported perceived improvement in research, analytical or academic writing skills, with 48 (56.5%) describing the improvement as significant. These responses did not include objective

measures of research competency or publication possibility in future. Seventy seven respondents (90.5%) felt that thesis work had some impact on their clinical practice. The questionnaire did not include detailed follow up to identify the specific nature of impact thus its cannot be taken as changes in patient care practice or clinical outcomes but rather as perceived influence in decision making and clinical thinking.

Institutional support was reported as adequate by 24 respondents (28.2%), somewhat adequate by 41 (48.2%) and inadequately or absent by 20 (23.5%). The survey showed perceived adequacy of support but did not explore specific components like research time, statistical assistance, funding, access to journals or mentorship meetings. Importantly use of AI and intelligence tool while preparing thesis was also not explored. Most participants (55/85, 64.7%) reported spending less than five hours per week on thesis-related activities.

The most commonly reported challenges included the time consuming nature of thesis work (29/85, 34.1%), difficulty in selecting appropriate topic (21/85, 24.7%), lack of mentorship (10/85, 11.8%) and limited access to academic resources (9/85, 10.6%). overall 67 respondents (78.8%) described their experience as positive or very positive, reflecting subjective perceptions of academic usefulness, mentorship, institutional support and research experience.

Sixty one respondents (71.8%) recommended continuing thesis writing for future trainees. Opinions regarding its compulsory nature differed where 55 respondents (64.7%) felt that thesis should remain a mandatory component of residency program 29 (34.1%) preferred that it be optional. The questionnaire did not include specific item assessing what alternative requirements should replace thesis work therefore alternative options could not be quantified in present study.

Table 2. Thesis Selection, Timing, and Perceived Academic Relevance

Parameter	Category	n (%)
Topic selection	Self-selected	48 (56.5)
	Assigned by guide/department	35 (41.2)
	Senior colleagues	2 (2.3)
Timing of finalization	Early in course	61 (71.8)
	Midway	23 (27.1)
	Toward end	1 (1.1)

Table 3. Institutional Support, Skill Development, and Overall Experience

Variable	Response	n (%)
Perceived improvement in research/academic skills	Significant	48 (56.5)
	Some	34 (40.0)
	None	3 (3.5)
Institutional support	Adequate	24 (28.2)
	Somewhat adequate	41 (48.2)
	Inadequate / none	20 (23.5)

DISCUSSION

This study aimed to see the perceptions of residents, present and former, regarding if the thesis writing had any value in their academic training. The results showed that despite significant workload and time pressures, the majority of respondents still believed that the thesis was an important part of postgraduate education training and it does contribute to their academic and clinical growth. Previous studies have similarly reported that structured research training helps trainees develop skills in research methodology, critical appraisal, literature searching and evidence-based practice.^{7,8} Harsoor et al. also emphasized the same thereby strengthening evidence-based practice.⁹

Our data showed that more than 80% of our respondents found their thesis to be academically beneficial, whereas almost 90% believed that it improved their research or writing abilities. Our findings are similar with other studies which also reported that early exposure to proper research work has been associated with greater scholarly output and publication during residency and in subsequent career.¹⁰ However, institutional support needs to be good and structured research training needs to be given to residents to give basic knowledge so that they are able to conduct their research in proper way in their residency programs.

Mentorship, as we know, is a very important factor because most residents may have limited background knowledge on research

so a proper guidance is needed, and this ultimately will influence the quality of thesis written. Internationally, it is seen that if the mentorship is effective then it is associated with increased research productivity and it also boosts confidence among the residents.^{11,12} Most of our respondents stated that there was no proper or inadequate mentorship and it highlights the need for formal mentor training and dedicated supervision time, for resident research.

Time constraints also play a very significant role. Residents are seen struggling to balance time between busy work schedule and limited time for research and academic activities.¹² In our study, almost two-thirds of respondents spent less than five hours per week on their thesis and this reflects the challenge they face. Organizing a training focused on research methodology and statistical analysis and setting a structured timeline for residents early in their course would solve these issues.

Residents also are seen to have limited access to good journals. In order to view articles they need to pay, which is not possible every time due to financial constraints. Though some institute do have institutional access however all journals may not be accessible. This kind of barriers was also reported in similar resource-limited academic settings.¹³ Institutions should thus make a provision for a dedicated research support units, and also provide access to subscription-based journals. They should also conduct workshops on research design and data analysis.

In the study, there were only few who questioned the compulsory nature of the thesis, however most supported that thesis needs to be continued as a part of post graduate training. The survey did not specifically evaluate preferred alternative if the requirements were changed. Internationally, several postgraduate programs have adopted publication based models, however it has limitations like unequal access to mentorship, publication delays and financial barriers. Nevertheless, giving other opportunities like provision for publication of their work or other similar articles in journals would encourage them to be productive and also encourage them to publish further in their career.¹⁴ Further studies in Nepal should specifically explore trainees preferences regarding alternative scholarly requirements.

Major limitation of the study was that the stakeholder analysis was not done and the questionnaire was developed specifically for

the study. However, the questionnaire was reviewed by faculty members involved in postgraduate medical education and research supervision from our department of Surgical Gastroenterology for face and content validity, but formal validation and reliability testing was not performed. Therefore, the findings should be interpreted in the context of a self-developed survey instrument.

The study also used convenience sampling through social media and institutional networks and participation was voluntary. Thus a selection and response bias may have occurred. The sample may therefore not be fully representative of all MD/MS/DM/MCh trainees in Nepal. The findings should be interpreted as description of perceptions within the surveyed group rather than a population level estimate. The outcome measured in this study were primarily self-reported perceptions and experiences. Objective assessment of learning outcomes, publication and research competency and clinical application not done. Future studies incorporating validated evaluation frameworks or models, and studies incorporating objective outcome measures like research competency assessment, publication rate and evidence-based practice should be conducted to assess the true impact of thesis training in learning, research and clinical practice.

Overall, this study highlights that most still have a positive perception of thesis, but it also identifies key areas where some form of reform is needed. Importance must be given to improving the quality of mentorship, provide adequate institutional support and also integrate research methodology as a part of residency training early in the course and this could help them in enhancing both the educational and scientific impact of thesis writing.

CONCLUSION

Among the respondents surveyed, thesis writing was generally perceived as an important component of residency training; however, limitations in mentorship, institutional support and time availability were commonly reported. Strengthening mentorship, protected research time and institutional support may enhance the educational value of thesis writing regardless of whether it remains a mandatory component of residency training. Future studies using objective educational outcomes and validated evaluation

frameworks are needed to better assess the impact of thesis in postgraduate training.

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CONFLICT OF INTEREST

None

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