

Common problems faced by postgraduate students during their thesis works in Bangladesh

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Abstract

Background: Thesis work is an integral part of postgraduate medical education. It serves as the first stepping stone into scientific writing. But during research work, students and supervisors face various problems. A number of research works have been conducted in different parts of the world on this issue. Some of the problems are candidate related and some of them are supervisor related. In Bangladesh, no research work has been done to find out the problems faced by the students and supervisors during thesis work. Once the problems are identified, we can find ways and means to solve those problems as much as possible. Thus the students as the primary group will be benefitted from the results of this study and the supervisors will gain in-sights and will be able to lighten the problems.

Method: A cross sectional descriptive study was conducted in 20 different medical colleges and institutes in Bangladesh. A total of 133 postgraduate students, 46 supervisors participated in the study. Purposive sampling technique was used. Two pre-tested semi-structured questionnaire were used (one for students and one for supervisors) to collect data and data analysis was done using SPSS version 19.

Results: The problems in general identified were lack of students' knowledge, experience, commitment in thesis works, time constraint, excess workload, lack of fund, inadequate and irregular meeting with supervisors. Institute related problems were inadequate guidance and resources of the institute, absence of research cell and formats of thesis writing in the institute and inadequate cooperation from the institute.

Conclusion and recommendation: The pre-sent study revealed that lack of knowledge, lack of experience, lack of fund and lack of regular meetings with supervisor were found the most important general problems. Lack of research project and lack of resource were found the most common problems related to the institute. The recommendations made were- research methodology and biostatistics should be incorporated in undergraduate and postgraduate curriculum, regular practical workshops on research methodology and biostatistics for the students and the supervisors, provision of adequate fund for academic thesis works, arrangement of adequate research facilities and resources in all institutes/universities conducting postgraduate courses, introduction of checklist and meeting schedule to be used both by supervisors and students during thesis works.

Key Words: Problems faced, postgraduate students, thesis works.

Introduction

A thesis can be defined as the written product of a systematic study that results from a period of supervised research at the University (BSMMU 2008). The finished product demonstrates originality, critical and independent thinking, appropriate organization and format, and thorough documentation. It generates scientific mindedness and facilitates the learning of how to identify a research topic and research problem, how to formulate research question(s) and objective(s), how to design and implement a research, how to manage and interpret data and how to report a research.

Thesis work needs to be done in such a precise and systematic

way so that the students' knowledge, skill, attitudes and values becomes apparent in the thesis work. But many factors affect the thesis works and determine the quality of the thesis writing. These factors may be personal i.e. students' knowledge, experience, commitment, socioeconomic condition, communication skill, stress, time management etc. (Bocar 2009), institutional i.e. cooperation, guidance, fund, physical facilities etc. (Safari et al 2015), supervision related i.e. student supervisor relationship, supervisor knowledge and interest, regular contact between supervisor and student, timely feedback etc. (Yousefi et al. 2015), re-search environment related i.e. presence of dedicated faculties and research council/ cell, peer support etc. (Pitchforth et al. 2012).

During the thesis work, the postgraduate students and guides face a variety of difficulties (Duze 2010, Manchishi et al. 2015). Few research works (Lessing & Schulze 2003, Wang & Li 2008, Changiz et al. 2003) have been carried out on these issues all over the world. These studies reveal that the problems are mainly concerning the students' clear understanding of the re-search work and the various steps of it.

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So it is clear that conducting research and thesis writing are quite challenging to the postgraduate students and their supervisors. Quality research has immense beneficial role to meet the society needs, nation needs and global needs. But the number of quality research works and thesis writing carried out by postgraduate students for academic degree is not too many in our country and same picture is prevailing in many other countries. Many factors may affect the postgraduate students' thesis works (Duze 2010, Manchishi et al. 2015, Pitchforth et al. 2012, Bocar 2009, Vos 2013, Myers 1999). This study aims at searching those factors/problems and finding their solution in the context of Bangladesh.

Methods

This descriptive cross sectional study was conducted in 20 different medical colleges and institutes of Bangladesh during the pe-riod of July 2015 June 2016. Study population were- postgraduate theses students and students who had completed thesis within last 2 years and Supervisors from different discipline. Selection criteria were all available Postgraduate Students in the-sis part who were doing thesis work or had completed the thesis work in different discipline within the last 2 years, all available postgraduate students who were doing dis-sertation/thesis in FCPS 2nd/3rd part or com-pleted the dissertation/thesis works within the last 2 years, all available supervisors who had supervised at least 2 students and examined at least 5 dissertation/theses. A total of 133 postgraduate students and 46 supervisors were included in the study. Two separate self-administered semi-structured questionnaire were developed for the students and the supervisors. The instruments were pretested before collect-ing the data.

The researcher introduced himself to the students and

supervisors explaining the purpose and the procedure to be followed while filling up the questionnaire. They were assured so that they would not feel any hesitation to answer freely. Question-naire with 5 point Likert scale was used to collect information from the students and the supervisors. Questionnaire was given to the available students just after completion of a class or in their reading room/library/dormitory/home. For supervisors, the re-researcher met him/her at their office/private chamber to give the questionnaire. Students/supervisors gave the tick mark in the appropriate space on the questionnaire and wrote their comments against the open-ended questions. After completion, the questionnaires were collected by the re-researcher and thanked them for their coop-eration. Questionnaires were edited after collection, coded manually and were un-dergone processed and analyzed by using SPSS version 19 computer software according to the objectives. For each variable frequency distribution and mean score with SD was calculated.

Results

Results of the self-administered semi-structured questionnaire from the postgraduate students (Table 1) and the supervisors (Table 2) regarding the general problems were as follows-

Table 1 shows that out of total 133 students 27 (20.3%) students agreed that they had lack of adequate knowledge on assigned task. 55 (41.4%) students agreed that they had lack of adequate experience on as-signed task. 48 (36.1%) students opined that they did not get enough time to complete the assigned task. 38 (28.6%) students thought that they were overburdened with the assigned task. 93 (69.9%) students agreed that they did not have enough fund. 61 (45.8%) students agreed that they had inadequate discussion with their supervisor at regular interval.

Table 1: Frequency distribution of opinions on the problems in general during thesis works by postgraduate students (n=133).

Statements	1	2	3	4	5	Total	Mean ±SD
	Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree		
	f (%)	f (%)	f (%)	f (%)	f (%)		
Lack of my adequate knowledge on assigned task	25 (18.8)	64 (48.1)	17(12.8)	18(13.5)	9(6.8)	133	2.41 1.142
Lack of my adequate ex-perience on assigned task	11(8.3)	48 (36.1)	19(14.3)	40(30.1)	15(11.3)	133	3.00 1.206
Lack of my commitment/interest to the assigned task	64(48.1)	44 (33.1)	14(10.5)	9(6.8)	2(1.5))	133	1.80 .981
I did not get enough time to complete the assigned task	31(23.3)	44 (33.1)	10(7.5)	37(27.8)	11(8.3)	133	2.65 1.327
I was overburdened with the assigned task	20(15)	41 (30.8)	34(25.6)	28(21.1)	10(7.5)	133	2.75 1.170
I did not have enough fund	13(9.8)	16 (12)	11(8.3)	45(33.8)	48(36.1)	133	3.74
I had inadequate discus-sion with my supervisor at regular interval	22(16.5)	39 (29.3)	11(8.3)	43(32.3)	18(13.5)	133	2.97 1.354

Table 2 shows that out of 46 supervisors 33 (71.7%) agreed that the students had lack of adequate knowledge on the assigned task. 37 (80.2%) supervisors agreed that the students lacked adequate experience on the assigned task. 36

(78.3%) supervisors agreed that the students did not have enough fund and 38 (82.7%) supervisors opined that the students did not have adequate discussions with the supervisors at regular interval.

Table 2: Distribution of the supervisors' opinions on the problems in general related to the student during thesis works (n=46).

Statements	1	2	3	4	5	Total	Mean ±SD
	Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree		
	f (%)	f (%)	f (%)	f (%)	f (%)		
Lack of student's adequate knowledge on assigned task	1 (2.2)	7 (15.2)	5 (10.9)	27 (58.7)	6 (13)	46	3.65 .971
Lack of Student's adequate experience on assigned task	1 (2.4)	4 (8.7)	4 (8.7)	30 (65.2)	7 (15)	46	3.83 .877
Lack of student's commitment/interest to the assigned task	2 (4.3)	16 (34.8)	13 (28.3)	11 (23.9)	4 (8.7)	46	2.98 1.064
Students did not get enough time to complete the assigned task	1 (2.2)	21 (45.7)	9 (19.6)	12 (26.1)	3 (6.5)	46	2.89 1.038
Students are overburdened with the assigned task	5 (10.9)	31 (67.4)	3 (6.5)	7 (15.2)	-	46	2.26 .855
Students do not have enough fund	1 (2.2)	6 (13)	2 (4.3)	20 (43.5)	16 (34.8)	46	4.02 1.105
Inadequate discussion with my supervisor at regular interval	2 (4.3)	4 (8.7)	2 (4.3)	21 (45.7)	17 (37)	46	4.02 1.085

Results of the self-administered semi-structured questionnaire from the postgraduate students (Table 3) and the supervisors (Table 4) regarding the problems related with the institutes were as follows-

Table 3 shows that out of total 133 students 32 (24%) students opined that they did not get adequate guidance by their institute. 47 (35.3%) students agreed that their institute

did not have any research project/cell/council. 72 (54.1%) students agreed that their institute did not have adequate resources. 49 (30.8%) students agreed that they did not get adequate formats and examples of thesis writing and only 19 (14.3%) students claimed that they did not get cooperation from their institute.

Table 3: Frequency distribution of opinions on the problems related with the institutes by post-graduate students (n=133).

Statements	1	2	3	4	5	Total	Mean ±SD
	Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree		
	f (%)	f (%)	f (%)	f (%)	f (%)		
I did not get adequate guidance by my institute	22(16.5)	58(43.6)	21(15.8)	20(15)	12(9)	133	2.56 1.196
My institute did not have any specific research project/cell/council	12(9)	55(41.4)	19(14.3)	31(23.3)	16(12)	133	2.88 1.2193
I did not have adequate resources (Adequate dedicated faculties, IT lab/library, fund)	7(5.3)	37(27.8)	17(12.8)	52(39.1)	20(15)	133	3.31 1.182
I did not get adequate formats and examples of thesis writing	11(8.3)	57(42.9)	16(12)	41(30.8)	8(6)	133	2.83 1.13
I did not get cooperation from my own institute	22(16.5)	76(57.1)	16(12)	11(8.3)	8(6)	133	2.30 1.037

Table 4 shows that out of total 46 supervisors 28 (60.9%) agreed that the students did not get adequate guidance by the institute. 37 (80.4%) supervisors agreed that many institute did not have any specific research project/cell/council. 39

(84.7%) supervisors agreed that many institutes did not have adequate resources and 33 (71.7%) supervisors agreed that many in-stitutes did not have adequate formats and examples of thesis writing.

Table 4: Distribution of the supervisors' opinions on the problems related with the institute (n=46).

Statements	1	2	3	4	5	Total	Mean ±SD
	Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree		
	f (%)	f (%)	f (%)	f (%)	f (%)		
Students do not get adequate guidance by my institute	1 (2.2)	11 (23.9)	6 (13)	20 (43.5)	8 (17.4))	46	3.50 1.111
Many institute do not have any specific research project/cell/council	1 (2.2)	3 (6.5)	5 (10.9)	26 (56.5)	11 (23.9)	46	3.93 .904
Many institutes do not have adequate resources	-	3 (6.5)	4 (8.7)	29 (63)	10 (21.7)	46	4.00 .760
Many institutes do not have adequate formats and examples of thesis writing	1 (2.2)	6 (13)	6 (13)	25 (54.3)	8 (17.4)	46	3.72 .981
Many students do not get cooperation from my own institute	1 (2.2)	12 (26.1)	11 (23.9)	19 (41.3)	3 (6.5)	46	3.24 .993

Discussion

Majority of the supervisors (71.7%) and few students (20.3%) of the present study agreed that the students did not have adequate knowledge on the research works. This finding reflected the difference of perception between the supervisors and the students regarding research related knowledge of the students. There might be misconception of the students regarding their own knowledge because the supervisors were the right person to judge the students' knowledge on research methodology. Again this finding was similar to Manchishi et al. (2015) which showed that students did not understand their own topic because they did not read properly. Both the students and supervisors had suggested in the present study that incorporation of research methodology and biostatistics in the undergraduate and postgraduate curriculum would be beneficial.

Safari et al (2015) found in his study that lack of research experience affected the level of interest and participation of students in research activities. Research experience improved the interest and skill of the students in conducting research activities and can be achieved by participation in workshops related to research, SPSS, writing articles etc. This finding is parallel with the opinion of the supervisors in this study (80.2%). But less than half of the students (41.4%) confessed that they had less experience in research works. Probably a number of remaining students (58.6%) had incorrect perception about their research experience.

A few of the students (36.1%) and supervisors (32.1%) expressed their opinion regarding time constraint for the completion of thesis work. Again less number of students

(28.6%) and supervisors (15.2%) thought that students were overburdened with thesis work. Similar studies done by Bocar (2009), The University of Cincinnati (2001) found that time management and stress management were very important. Failure to keep pace with work plan and work overload, anxiety, isolation, frustration was the problems during thesis works. Though few students and supervisors had complained regarding time constraint and work overloads of the students but the factors need to be addressed to solve these difficulties for overall improvement of the thesis works of postgraduate students of various disciplines. For each stage of the thesis work, adequate time must be allotted to deal with the unexpected problems (Trimmer and McCrimmon, 1992) because they are often the cause of failure. Present study has suggested for minimum 1 year duration for thesis work and also to provide guideline and format to carry out thesis work.

Majority of the students (69.9%) and supervisors (78.3%) admitted that there was lack of fund for thesis work. This finding also support other studies done by Duze (2010), Trigwell & Dunbar-Goddet (2005) which noted that lack of funding, library facilities, accommodation and personal problems were the obstacles for thesis work. In present study both students and supervisors suggested to provide adequate financial support, institutional support to solve the mentioned problems.

In the present study majority of the supervisors (82.7%) and a reasonable number of students (45.8%) agreed that the students did not have adequate discussion with the supervisor at regular intervals. There was huge difference of opinion between the supervisors and students. This finding

showed that many students (54.2%) could not realize the importance of regular discussion with the supervisors for thesis work. Drennan and Clarke (2009) found that inadequate discussion at regular intervals seriously hampered thesis works. To alleviate this problem both the students and the supervisors in the present study suggested that student and supervisor should keep in touch regularly for the adequate progress of the research work and feedback.

There was difference of perception between the students (24%) and the supervisors (60.9%) on the issue of inadequate guidance by the institute. It may be due to gap of expectation between the students and the supervisors regarding how much the institute could guide. Majority of the supervisors (80.4%) and few students (33.5%) stated that many institutes did not have research project/cell. Researcher thought that the supervisors were in a better position to give the correct idea about this issue. Both the students and supervisors of the present study also suggested for institutional support to solve the above problem. Safari et al. (2015) revealed in a study that organizational support was very essential factor for effective and quality thesis work. The process of research protocol provides a guideline along with supervisory and technical support. Pitchforth et al. (2012) also found that the presence of research project in an institute was important for research activities and absence of which could affect timely completion of thesis.

Majority of the supervisors (84.7%) and a reasonable number of students (54.1%) agreed about limited resources of their institutes for thesis works. In this issue the students' opinion was vital as they were the customers for the institutional support service. Similarly there was difference of opinion between students (30.8%) and supervisors (71.7%) regarding the absence of formats and examples of thesis writing in the institute. Similar findings were found in a study conducted by Ramezani et al. (2011) who also demonstrated that presence of research facilities (access to high speed internet and databases proportional to number of students, presence or absence of chemical/equipment in the laboratory) played an important role in conducting research activities. In the present study students and supervisors also suggested for ensuring availability of IT lab (internet accessibility), modern library, well-equipped laboratory, dedicated resource personnel and research cell in the institute.

Conclusion and recommendation

The present study revealed lack of knowledge, lack of experience, lack of fund and lack of regular meetings with supervisor were found the most important general problems. Lack of research project and lack of resource were found the most common problems related to the institute. The recommendations made were- research methodology and biostatistics should be incorporated in undergraduate and post-graduate curriculum, regular practical workshops on research methodology and biostatistics for the students and the supervisors, provision of adequate fund for academic thesis works, arrangement of adequate research facilities and resources in all institutes/universities conducting

postgraduate courses, introduction of checklist and meeting schedule to be used both by supervisors and students during thesis works.

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