

The relation between executing of thesis policies and medical student's theses quality in type I medical faculties of Iran

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ABSTRACT

Background: Medical students' thesis is equal to six units, which is mandatory for graduation. The purpose of preparing thesis is to familiarize students with research process, methodology, and scientific report writing skill.

Purpose: The objective of this study is to determine the relation between executing of thesis policies and medical students' theses quality in type I medical faculties of Iran

Methods: To perform this study first, we randomly chose 36 (Total sample=396) medical students' theses in each 11 medical faculties, which completed in 1998-99 academic year. The original theses were evaluated by using a questionnaire. Second, for evaluation of operationalization of thesis policies we use four criteria including, the presence of performance regulations, the proposals approving process, final approving course and presence of a defence session to evaluate thesis in the same medical faculty.

Results: In medical faculties that thesis policies were completed, the score of theses was high. In contrast medical faculties with weak policies had low students' theses scores.

Conclusion: Thesis policies are considered as one of the ways to improve the quality of thesis. It is advised at the same time as we should be plan to provide the effective factors for improvement quality of thesis consider strongly the regulations related thesis should be considerate.

Keywords: MEDICAL STUDENTS, THESES, REGULATION, and SCORES

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Introduction

Medical students' theses are considered equal to six units (1). Unlike many other countries, in Iran preparing a thesis is obligatory for medical students (2). The goal is making students familiar with research process, methodology and article writing skills (3). Several studies have shown that the quality of medical thesis has been improving in recent years, but many of them had fundamental problems and there is a long way to the optimal state (4, 5)

Although thesis is considered as six units no time in the curriculum timetable is specified for it This is a fact that contrary to other courses in medical program, no specific time is considered for preparing the thesis (6) Some medical faculties have provided a one-week workshop of research methodology during the community medicine course, but there is no approved course about research in medical students program (7). Many

medical students are neither interested nor competent in completing a research project The objective of this study is to determine the relationship between the quality of medical thesis in 11 type one medical faculties in Iran and the relevant protocols on paper and in practice in each faculty.

Material and Method

This is a cross-sectional study. Preparing medical thesis and thesis' quality were both evaluated and compared. The study was performed in 11 medical faculties in Islamic Republic of Iran. These faculties are considered type I regarding their foundation year and include: Ahvaz, Gilan, Iran, Isfahan, Kerman, Mashhad, Shaheed Beheshti, Shiraz, Tabriz, Tehran and Urmia Universities of Medicine. In each of these faculties 36 thesis (totally 396 ones), which were completed in 1998-1999 academic year, were randomly chosen and

TABLE 1. The major features of an optimal thesis and their scores

Score	Structure	Content	Total
Volume	1	-	1
Index and page arrangement	1	-	1
Title	2	2	4
Research priority	-	3	3
Abstract	3	3	6
Problem definition/ Introduction	4	4	8
Definition of Key words	2	-	2
Review of litterateur	6	6	12
Aims and hypothesizes	3	4	7
Variables	3	3	6
Methods	9	9	18
Results	6	6	12
Discussion and conclusion	6	6	12
References	2	2	4
Writing style	2	-	2
General quality view	-	2	2
Total	50	50	100

evaluated by a valid checklist (5). Theses were scored based on their structure and content including following items: cover, index, title, research priority, abstract, introduction, review of literature, objectives and hypothesis, variables, methods, results, discussion, references and writing style. The score of each part was determined based on the relative importance and the peer review among 18 faculties and researchers. The total score for each thesis was considered 100 (50 for the structure and 50 for the content). Table 2 shows the major features of an optimal thesis.

For evaluating policies in each faculty four major criteria were designed and scored using the consensus developing methods (Delphi technique) among seniors of medical faculties(8). These four criteria include: process of approving the proposal, executive regulation for conducting the project, process of approving the final thesis and the

existence and quality of the defence session. Table 2 shows the scoring based on these criteria.

Results

The median score of thesis quality and the score of policies in each of the 11 medical faculties is shown in table 3. The logical relationship is seen between thesis policy and thesis quality (figure 1). In figure 2 medical faculties are ranked according to policy score and theses quality scores. Most of the medical faculties, which ranked high according to policy scores, have high quality theses too. For example Tehran medical faculty has nearly the complete score according to the policies and the quality score of theses is the highest too. On the other hand Urumieh medical faculty is the same in both diagrams. Comparing the rank of each faculty in these two evaluations, 2 faculties' rank are the same. The ranks of policy scores and theses quality scores were 9 and 7 for Shaheed Beheshti and 6 and 11 for Ahvaz respectively. It means that despite the policies are executed nearly complete in Ahvaz medical Faculty, the quality of theses are the worst. The case of Shaheed Beheshti is the reverse.

Discussion

The result of this study showed that thesis policies and quality of medical students' theses had strong relationship. However it should be recognized that protocols are not the only determinant factor of theses quality. Many factors such as the numbers of students and faculty members, availability of books, journals, computers and access to internet, research and search in databanks workshops for both faculties and students may affect theses quality. The extent of these factors effect needs further investigation

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TABLE 2. Criteria of evaluating thesis policy and their scores.

Criteria	Subgroups	Score
Trend of approving proposals		Total=30
	Approved by the guiding professor	6
	Approved by educational group	6
	Approved by research deputy of the faculty according to priorities	6
	Approved by biostatistician	6
	Reviewed by consultant professors	6
Rules for executing		Total=20
	A predefined obligatory interval between approving the proposal and the defence session	4
	Approving the proposal before internship	4
	Research workshop as prerequisites	4
	Computer course as prerequisites	4
	Limit for the number of students participating as authors for executing each thesis	4
Trend of approving the final thesis		Total=29
	Approved by guiding professor	5.8
	Approved by the educational group	5.8
	Approved by a biostatistician	5.8
	Approved by the thesis committee	5.8
	Approved by the research assistant	5.8
Defence session		Total=21
	Existence of obligatory defence session	5.2
	Attendance of guiding and adviser professors at defence session	5.2
	Attendance of at least two invited professors at defence session	5.2
	Attendance of research deputy assistant at defence session	5.2
	Attendance of a biostatistician at defence session	5.2
Total		100

TABLE 3- The median score of thesis and score of thesis policy in the medical faculties

Order	Name of Medical faculties	Scores	
		Theses (median)	Thesis policy
1	Ahvaz	14.3	64.3
2	Gilan	33.3	75/1
3	Iran	23.7	63
4	Isfahan	34.1	63
5	Kerman	37.7	65.9
6	Mashhad	23.8	66.3
7	Shaheed Beheshti	25.4	47.3
8	Shiraz	26.1	63
9	Tabriz	22.9	48.3
10	Tehran	40.1	90.8
11	Uromie	36.3	75/3

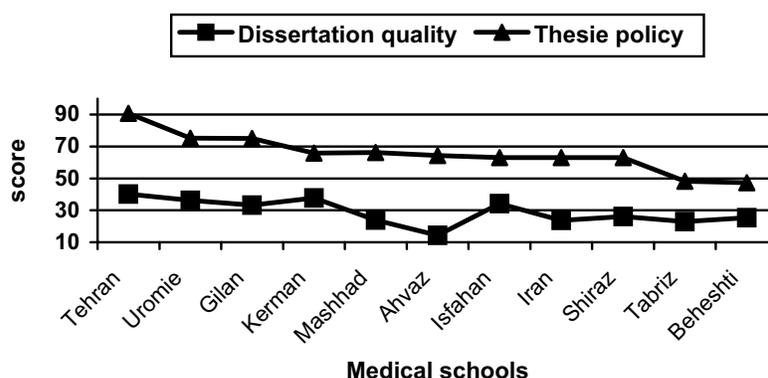


FIGURE 1- Comparison of thesis policy and thesis quality

Rank of thesis quality

Rank of thesis quality	11	10	9	8	7	6	5	4	3	2	1	
											Te	1
						Gi						2
								Ur				3
			Ma									4
										Ke		5
	Ah											6
			Ir		Sh		Is					7
		Ta										8
				SB								9
												10
												11

Rank of thesis policy

FIGURE 2- Comparison of thesis policy and thesis quality rank

Ah = Ahvaz , Gi= Gilan, Ir = Iran, Is = Isfahan, Ke= Kerman
 Ma=Mashhad , SB = Shaheed Beheshti , Sz= Shiraz, Tz=Tabriz
 Th= Tehran, Ur= Uromie

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