Original Article
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Medical Journal of the Islamic Republic of Iran (MJIRI)
Iran University of Medical Sciences

Challenges for Better thesis supervision

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Received: 11 May 2013 Accepted: 2 Oct 2013 Published: 10 May 2014

Abstract

Background: Conduction of thesis by the students is one of their major academic activities. Thesis quality and acquired experiences are highly dependent on the supervision. Our study is aimed at identifing the challenges in thesis supervision from both students and faculty members point of view.

Methods: This study was conducted using individual in-depth interviews and Focus Group Discussions (FGD). The participants were 43 students and faculty members selected by purposive sampling. It was carried out in Tehran University of Medical Sciences in 2012. Data analysis was done concurrently with data gathering using content analysis method.

Results: Our data analysis resulted in 162 codes, 17 subcategories and 4 major categories, "supervisory knowledge and skills", "atmosphere", "bylaws and regulations relating to supervision" and "monitoring and evaluation".

Conclusion: This study showed that more attention and planning in needed for modifying related rules and regulations, qualitative and quantitative improvement in mentorship training, research atmosphere improvement and effective monitoring and evaluation in supervisory area.

Keywords: Dissertation, Research, Supervision, Iran.

Cite this article as: Ghadirian L, Sayarifard A, Majdzadeh R, Rajabi F, Yunesian M. Challenges for Better thesis supervision. Med J Islam Repub Iran 2014 (10 May). Vol. 28:32.

Introduction

Promotion of training and research quality has always been the main concern for every academic system; evaluation and monitoring of which in concordance with community needs is crucial (1). Efforts have been made in developing countries in recent years for promoting primary and secondary education, while developed countries are working on intensifying higher education and promotion of secondary and especially tertiary education. In order to promote educational profile in developing countries which may lead to promotion of their Human Development Index (HDI), planning for development of tertiary education can be useful. Considering the goal of promotion of educational profile in Iran, development of academic education is especially needed (2-4).

Maintaining and promotion of trained human resources based on world class standards along with quantitative development is also important and should not be ignored. Three main aspects of higher education quality are faculty member, student

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and educational system and it is clear that they are not independent from each other and the community as a whole, thus a mutual relationship should be considered (5). In terms of student view, the research manifests in its main form as the thesis and the students represent their innovation, self-confidence and diligence during their thesis (6).

Offering thesis by the students is one of the major academic activities which is not only the first systematic step for familiarizing students with research (7), but also it is used as a criterion for evaluating individual competence of the student in scientific research and obtaining related skills (8). Thus, it can be argued that the way of directing the thesis is not only crucial in training the student and promoting his scientific skills, but also it is effective in promoting quality of scientific products, produced by the university which are useful in improving the university's scientific rank. Quality of student's experiences with thesis is highly dependent on the supervisory skill of the supervisor. Thought supervisory and monitoring of student thesis is part of an academics working life of the faculty members in universities; this field has remained mostly understudied. Tinkler and Jackson said that "the whole process as it stands is ‘shrouded in mystery’" (9).

Guiding research and project is likely the most complex and finest form of education which is involved by the faculty members. Supervisors should not be just experienced researchers, but they also should know familiar with methods which make research effective. In addition, they should enable higher education students to obtain needed skills for these methods (10). Quality of transferred educational skills by the supervisor is one of the major factors in student's success in preparing the thesis (11). Some studies have been conducted in this regard, March et al. in Australia indentified six components as effective factors in preparing a good thesis which include: thesis supervision, promotion of skills, scientific climate, evaluation process, clarity of goals and standards and infrastructure, and the students' satisfaction in the process of thesis writing (12).

Developing countries are going to intensify higher education, so thesis process is coming in to spot light as a major part of this issue. Limited studies have done in Iran show that process for thesis writing including supervisory area is problematic (13, 14). The paper is exploring deans’ deputies, faculties and studensts' view points regarding importance and challenges of thesis supervision

Methods

This qualitative study is a part of a larger study about challenges in thesis writing process. This study was conducted in Tehran University of Medical Sciences (TUMS) which has a considerable contribution in training specialized human resources in Iran. In this paper only the superviosion subject, as a part of of thesis process, was discussed.

Sampling Method: Purposive sampling with maximum variation was used form these groups: PhD students , Master students, clinical residendts, general practitioners (who had finished their own thesis) , faculty members (with at least 5 years of experience in conducting thesis) and deans’ deputies for education and research. The participants were selected from 13 schools who were willing to share information and experiences.

Data were collected through face-to-face and in-depth interview. Individual interview and focus group discussion was conducted for data triangulation. Interviews were conducted in private and in comfort. Interview duration was 45-60 min. Gathered data included audio recorded interviews, facilitator's and interviewer's notes during interviews (field notes) and transcribed interviews. All interviews were conducted by two of the authors. An interview guideline was prepared and interviewers conducted initial protocol in each interview as follow: project title, a sum-

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mary about the necessity of the project for interviewees, obtaining permission to record the interview with the emphasis on privacy, emphasis on the fact that the interviewees are able to reject the interview in any step, and final results would be sent to the interviewees, if they want. Main question was "What was your problem regarding the supervision of your thesis?". Some probing questions were: "Tell me more about the problem", "in which part of your thesis process the problem exised?", "What did your supervisor say / do?", "What was the outcome?" Considering the answers and their analysis, other questions were also added within interview.

Interviews were continued until theoretical saturation was obtained. During in-depth face-to-face interview, 6 PhD students, 3 master students, 5 general practitioner, 5 clinical assistant and 7 faculty members were selected. Additionally, sessions of focus groups were held for PhD students (two sessions including 7 and 8 members), one session for 5 master students, one session for 4 doctoral degree students (e.g. medicine, pharmacy and dentistry), one session for 12 educational deputies, one session for 10 research deputies and one session with presence of the university's education and research vice-chancellors and research directororate and the chancellor's advisor (4 members).

Following interviews, data were analyzed by content analysis as follow: recorded interviews were transcribed concurrently with data collection, and then they were read several times for familiarization and having a general understanding of the content. Afterwards, meaning units or initial codes were extracted and codes were categorized based on similarities. It was attempted to have the highest homogeneity within, and the highest heterogeneity between subcategories. Although each data was tried to assign into only one subcategory (15), some codes was placed in one category based on one of its aspects, and at the same time, was placed in another category for another aspect it had. Finally the categories were extracted. MAXQDA software (version 10, package series) was used for indexing and charting. In order to insure trustworthiness, the authors kept long-term involvement with data and ongoing subjective data involvement allows increasing of information.

In addition, in order to ensure consistency between the obtained codes and experiences of the participants, member check was used. Therefore, obtained data were returned to the participants for approval or modification. Interviews and initial coding and categories were examined by peer debriefing. External check was also applied.

Finally, parts of interview transcription and related codes and subcategories were sent to some reviewer so that they examined the analysis process and confirmed its accuracy.

Verbal consent was taken from all of the participants. Any action leading to disclosure of individual identity has been prevented and analysis and dissemination of parts of their interview in final report was done based on the code. The proposal of the present study was approved by TUMS's Institutional Review Board.

Results

Overall, 43 students and 33 faculty members took part in the study. Among students, there were 26 (60%) female and 17 (40%) male students and among faculty members, there were 11 (33%) female and 22 (67%) male. The age range for students and faculty members varied between 24-43 and 39-65 years, respectively.

Data analysis led to extraction of 162 codes, 17 subcategories and 4 major categories, "supervisory knowledge and skills", "climate", "by rules and regulations relating to supervision" and "monitoring and evaluation" (Table 1).

Supervisory Knowledge and Skills

Supervisory knowledge and skills in thesis was one of the major categories which was extracted from "poor project management", "lack of research knowledge and

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Table 1. Main categorie and their subcategories extracted from interviews

Category		Subcategory
supervisory knowledge and skills		lack of research knowledge and skills poor project management lack of communication knowledge and skills
climate	research climate	lack of motivation lack of scientific and research programs lack of specific research line
	inter-personal interactions	head of department's influence student's tendency to choose supervisor with specific position faculties' disagreement with coorporating with supervisor from out of the university
Bylaws and regulations relating to supervision		Unclear responsibility for thesis subject selection Limit for the number of thesis Inappropriate criteria for being supervisor Undefined tasks for supervisors Lack of supervision bylaws for evaluating supervisory of supervisors Having several executive posts by supervisors
Monitoring and evaluation		Lack of monitoring on bylaws lated to supervisors tasks
		Lack of feedback for the supervisor and advisor

skills" and "lack of communication knowledge and skills."

The major point mentioned by participants was lack of knowledge and skill in some faculty members for conducting and managing and lack or insufficient appropriate feedback to students during thesis writing process. Not allocating appropriate time by the supervisor for guiding the student was mentioned as an important problem by some students. Students were dissatisfied from supervisors' insufficient familiarization to research methodology and paper writing.

Faculty member No.3: "Supervisors don`t have enough supervisory skill. They might be good teacher, and teach well, but they cannot direct thesis properly. Supervisory skill is proficiency independent from teaching. You should know research management and time management."

Student No.37: "My supervisor didn't ask me for progress report. If he had asked me reporting for each step or we had had meetings, many of my problems were solved and my work's quality was improved."

Some students and faculty members mentioned following challenges: lack of respectful relationships between faculty members and students, and supervisors' insufficient expertise for linking with other centers in order to send students for learning the required techniques or using equipments for thesis progress, or taking research grant.

Educational deputy No. 13: "Unfortunately, some faculties suffer from lack of scientific knowledge and exert misbehavior for compensating this defect."

Educational deputy No. 7: "A few of faculty members not only have insufficient scientific ability and research skill, but also have inadequate ability to take required helps to compensate."

Climate

This category includes: "research climate" and "inter-personal interactions". Research climate includes following subcategories: "lack of motivation," "lack of specific research line" and "lack of scientific and research programs." Interpersonal interactions category was extracted from following subcategories: "head of department's influence", "student's tendency to choose supervisor with specific position" and "faculties' disagreement with cooperating with supervisor from out of the university."

Some faculty members mentioned that students tend to choose easygoing supervisors, board member, and those with special administrative positions. Head of department influence in selecting the supervisor

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for students was another challenge mentioned by most participants.

For example, student No. 4 said: "Heads of departments lobby much, this make some students choose head of department as their supervisor for progressing thesis easily." Or Vice-chancellor for education. No.11 said: "PhD students, who wish to graduate sooner, seek for supervisors with ready subjects and the scientific output is not important for them. They prefer to pass the thesis with board members or easygoing supervisors."

Lack of cooperation of the university in selecting second supervisor out of the department, college or university, was the other problem mentioned by most participants.

Student No. 10: "I want to choose my supervisor from another university; I failed, because the university didn't accept this matter."

Student No.2: "We are not allowed to choose supervisor from another department, so when we need equipments or facilities from other departments, our work doesn't progress or we have to pay extra cost, and the time is wasted."

Inadequate or poor-quality academic and research programs, inadequate motivation in faculty members and students were also mentioned in relation to research activities.

Student No.5: "scientific climate of the department causes recession and disappointment. There are few seminars, workshops, journal clubs, and programs that we need to learn research methods and research activities, and if they are held, they lack necessary quality or are not attractive enough for students."

Faculty member No. 3: "Research climate is not good at all. Research is not considered seriously."

Research deputy No.2: "Not giving value to thesis guidance and consulting, as a task of faculty, causes don't spending much time for it."

Lack of specific research line by supervisor and thus, inconsistency between subjects and titles of theses with supervisors' specialized fields, were challenges mentioned by most participants.

Faculty member No.1: "Our faculty members don't act in their specialized field, in a single field, and thus, there is not consistency between subjects and titles of theses under their supervision with their specialized field."

Bylaws and regulations relating to supervision

This category was taken from the following subcategories: "unclear responsibility for thesis subject selection", "limit for the number of theses," "inappropriate criteria for being Supervisor", "undefined tasks for supervisor" and "lack of supervision bylaws for evaluating supervisory of supervisors" and "having several executive posts by supervisors."

Unclear responsibility of thesis subject selection (supervisor or student) was another point referred to by participants.

Faculty member No. 7: "Supervisor doesn't know he should choose the subject or the students should do so. It should be cleared, especially for each educational level, for example in MA level, student is not much aware of the subjects and there is not much time for research and subject selection. But this problem is less evident in PhD level and it's better for student to use his own creativity."

Lack of opportunity for all faculty members for being selected as supervisor is another challenge. Having limits for the number of thesis for supervisors was the other one, about which there was different opinions.

Faculty member No.3: "Setting limits for thesis number is both good and bad, it's good because one individual might be much attracted by students for unscientific reasons and it's bad because some have many ideas and can manage several students."

Faculty member No.6: "Setting limits for the number of thesis, causes its fair distribution among faculty members with similar conditions."

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Research deputy No. 12: "Thesis is like a coupon in departments."

In addition, some faculty members complained about inappropriate presence of methodology advisors in departments and lack of professional relationship between supervisors and advisors.

Faculty member No. 6: "Advisors actually do not help. They became guest author; it doesn't bring intellectual ownership and bothers the student."

Educational deputy No. 11: "Advisors mostly are defined as formality and due to relations and their role is totally factitious, of course until paper publication step."

Ineffective educational evaluation and lack of regulations for evaluating supervision were also stated by the participants.

Faculty member No.6: "currently educational evaluation of the faculty members is done by students in the university, but ultimately the results are not delivered properly and actually it is formality. The same process doesn't even exist for evaluating supervision."

Some faculty members argued that there are not appropriate eligibility criteria for selecting faculty members as supervisors.

Faculty member No. 2: "The criteria for selecting faculty members as supervisor should not be only based on number of ISI papers. Other competencies and skills should also be accounted for. Why students who should write thesis are not asked about their thesis supervision, after that feedback can be given to their supervisors, In addition the results can be used as criteria for choosing these faculty members if they are eligible for being supervisor again."

Having several executive posts by supervisors was mentioned as one reason for lack of time and attention to the thesis guidance.

Student No. 41: "How much time one person have to do both, works in several posts and also instructs and supervises the thesis. No time is left for supervising student's thesis."

Monitoring and evaluation

This category was extracted from "lack of monitoring on bylaws related to supervisor tasks" and "lack of feedback for the supervisor and advisor" subcategories.

Some faculty members mentioned lack of monitoring committees to supervise and provide feedback.

Educational deputy No.3: "There is not enough monitoring on research area by the research deputy in departments and colleges on the performance of faculty members. Thus, faculty members don't receive any feedback on the appropriation of time spent and their supervision and guidance for the thesis."

Discussion

This study explored challenges in thesis supervision area in the view of students and faculty members in Tehran University of Medical Sciences. Major themes included "supervisory knowledge and skills", "climate", "bylaws and regulations relating to supervision" and "monitoring and evaluation".

For the first category, lack of communication skills in supervisors, project management, familiarity with research methodology and paper writing, communicating to other centers for taking grant and sending students for utilizing facilities and learning new skills in other centers.

Based on a report from UK, higher education academy in 2007 which investigated research experiences of postgraduate students, research supervisory was suggested as the most important factor in success of students' research programs, thought 23% were dissatisfied with supervision. Most students stated that their supervisor had the necessary skills and knowledge for enough support and least satisfaction was due to inappropriate guidance by supervisor regarding search strategies (16).

A study by University of Sydney (2004) on factors affecting research experience of higher education students, indicated that the highest satisfaction in graduate students about thesis writing process was for super-

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vision quality and students' skills development (17). Another study by University of Edinburgh showed that there was high satisfaction with thesis supervision in students, but it had decreased in comparison with the previous year (18).

A research in Hamedan University of Medical Sciences in Iran showed that most supervisors considered consulting and guidance as a task, while they were not totally aware of supervisor's tasks (13). Another study in Iran found that thesis writing was a problematic process for medical students, which included problems in supervision area (14). Another survey in Iran showed that students were satisfied with availability of their supervisors, in opposite to their guidance regarding literature review (6).

One important supervisory skill is the way of interaction with students. As it was shown in a study in UK's Hull Business University, those students who had supervisors with better communication skill offered significantly higher quality thesis (19).

Findings of this study were consistent with other ones in Iran and it implies that supervisory skill and knowledge require attention by university policy makers and planners.

Hence, development, planning and management for promoting quality and quantity of training skills related to supervision, including communication skills, project management, research methodology for faculty members could be considered which is achievable through providing educational packages for thesis design and implementation. It could lead to research enrichment, validity and reduce problems related to thesis supervision.

In current study, the inappropriate climate which includes research climate and interpersonal interactions was mentioned. Inappropriate research climate may lead to dissatisfaction and lack of students' and faculty members' motivation for research activities and lack of faculty members' effort to promot skills related to thesis supervision. University of Sydney found that the lowest satisfaction was about scientific climate (17). A study in Iran showed that the lowest satisfaction in students was about scientific and research climate and planning for scientific seminars (6). A study in Melbourne indicated a low satisfaction with scientific and research climate in students (20).

Inappropriate research climate, which leads to lack of faculties' motivation regarding research activities, may causes devaluating thesis supervision and lack of promoting skills effort in this matter. On the other hand, supervisors can play effective role in creating motivation for students for research activities. Thus, planning for promoting scientific and research climate can lead to upgrading quality and quantity of research education and research activities and dominant climate will be influenced by promoting related skills.

Regarding lack of cooperation in choosing second supervisor from another university, it should be noted that though cooperation with other centers may compensate technical and scientific deficiencies in the university, other problems such as administrative bureaucracy, financial transactions and intellectual ownership ambiguity regarding research findings might be happen when there is cooperation between university and other centers. Thus, trying problem solving in this issue requires more study and investigation.

Tendency of student to pass thesis with easygoing faculties, or those who are board members or have special administrative positions may be due to considering possible opportunities offered by them, as the students may think it would be useful in increasing their opportunity for getting board or job after graduation. It may cause inequality to select a supervisor among faculties. Lobbying with head of department in choosing supervisor was mentioned as one of problems which may have above outcomes. In positive side, head of department can direct students to choose appropriate supervisors considering their ability and working field.

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Unavailability of the supervisor due to having executive position or involvement in multiple activities was another problem. According to current bylaws, occupational promotion of faculty members with executive positions is similar to other faculties; they accept students' thesis supervision despite of not having enough time. In a study in Iran, it was found that supervisors work in public and private clinics in addition to their academic activities, thus limited time is left for supervising and guiding students (21). A research in UK showed that most students were satisfied with availability and their access to the advisor (19).

Concerning inadequate cooperation of advisors in guiding students, delegating the primary responsibility of thesis guiding to supervisor and lack of transparency of advisor's tasks in academic bylaws might be the reasons. Explanation of related regulations may solve this problem.

Setting limit for thesis number for faculties was a challenge and there was no consensus among faculties and students. Some agreed on it arguing that having limit let faculties to more focus on a thesis. In opposite side who disagreed said that faculties with higher ability are excluded and students have to work with lower competency ones.

Lack of monitoring on supervision and feedback were also mentioned which was in consistent with another study in Iran in this regard (21). In a research from Germany, it was found that monitoring various steps of thesis process was well and provided higher publication of thesis findings (22).

To this end, establishment of supervisory committee in order to monitor supervision, quality and quantity of educational programs related to supervisory skills, performance, consider complaints and provide feedback, monitor implementation of approved guidelines and thesis progress can be considered as proper solution.

Overall it seems that reviewing, revising and developing the bylaws and regulations for improving thesis process affect other major categories including supervisory knowledge and skills, climate, and monitoring.

But in order to increase implementation guarantee and promote performance quality, codifying evaluation and monitoring mechanism for regulations and bylaws seems to be necessary. Improving scientific and research climate of university may also help to improve regulations as well as facilitate and promote monitoring programs.

These study findings can be utilized considering its weak and strengths points. Participation of thesis process stakeholders, the faculties and students is strength for our study. In addition, inclusion of views of students from various levels of education is another strength point. Analyzing views of students and faculties just in Tehran University of Medical Sciences is a limitation for this work.

Our limitation in this study was difficult access to students that was graduated. Another limitation was difficulty for some students to tell about their problems, due to some considerations with regard to their supervisiors.

Conclusion

Current study showed that despite of promoting in research filed in Tehran University of Medical Sciences, there are some problems in thesis supervision field yet. Following strategies are suggested for problem solving and increasing the quality of thesis:

1. Reviewing, revising and developing bylaws
2. Developing evaluation mechanism to monitor the implementation of bylaws and regulations and establishing supervisory committee.
3. Developing, planning and management in order to improve the quantity and quality of supervisory skills training.
4. Planning for improvement of scientific and research climate.

Acknowledgments

This research has been supported by Teh-

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ran University of Medical Sciences & health Services grant (number 91-03-74-18682). The authors would like to thank all students and faculties involved in the study, special thanks for dean's deputies for education and research.

References

1. Reversing Iranians' age pyramid. Tabnak newes, News code: 157442. 2011.
2. Larijani B, Majdzadeh R, Delavari AR, Rajabi F, Khatibzadeh S, Esmailzadeh H, et al. Iran's Health Innovation and Science Development Plan by 2025. Iranian J Publ Health. 2009; 38(1): 6-13.
3. Rajabi F, Majdzadeh R, SA. Z. Trends in medical education, an example from a developing country. Arch Iran Med. 2011; 14(2): 8-132.
4. Ziaee AM, Yazdani SH, Pooladi A, A A. Policy draft and policy operation guide. ministry of health and medical education, deputy of education. 2012.
5. Safdari F, Delaram F. Causing factors on academic advance of students and professors in nursing and midwifery of Shahrekord University of medical sciences. Journal of Shahrekord University of medical sciences. 2007; 9(3): 71-5.
6. Dehghani GH. Students' satisfaction and related factors of thesis process in Tabriz University of Medical Sciences. Strides in Development of Medical Education. 2009; 6(1): 1-9.
7. Organi H, Mahdavi R, Farajallahi AR, Mahjale Nayebi AR, Pourabbas R, Alizad SM . Writing a thesis in Tabriz Universityof Medical Sciences. Tabriz: University of Medical Sciences, Office of research deputy. 2004; 3.
8. Rose R, Nick S-R. PREQ Report 2007. TLD Teaching Evaluation Group, James Cook University. Available from: URL:http://www.jcu.edu.au/teaching/idc/groups/public/documents/statistics/jcuprd_025473.pdf.
9. Fitzsimmons P, Anderson R, McKenzie B, Chen H, Turbill J .An Eye On The Prize: Fourth Year Honours Students , Thesis Writing and The Group Supervision Process, AARE Mini Conference October. 2003.
10. Pilcher N. The UK postgraduate Masters dissertation: an 'elusive chameleon'? Teaching in Higher EducationVolume 16, Issue 1, 2011.
11. Bazargan A. Quality and it's evaluation in higher education: A look at national and international experiences. Rahyaft Quarterly. 1997; 60: 15-71.
12. Marsh HW, Rowe KJ, Martin A. PhD students'evaluations of research supervision: Issues, complexities, and challenges in a nationwide Australian experiment in benchmarking Universities. J High Educ. 2002; 73(3): 48-313.
13. Hazavehei MM, Sh E. The KAP study of faculty members of the Hamadan University of Medical Sciences about academic advising programs in 1998. Journal of Hamadan University of Medical Sciences And Health Services. 2001; 7(4): 36-43.
14- Report of Quality improvment of thesis.Students' research committe of ESfehan University of Medical Sciences. Research deputy Esfahan University of Medical Sciences. 2000.
15- Graneheim UH, Lundman B. Qualitative content analysis in nursing research: concepts, procedures and measures to achieve trustworthiness. Nurse Educ Today 2004; 24(2): 105-12.
16. Chris P, Andria H, Malgorzata K, Lee H. Postgraduate Research Experience Survey – Final Report 2007. The Higher Education Academy. United Kingdom. Available from: URL: http://hca.ltsn.ac.uk/assets/York/documents/ourwork/research/surveys/pres/PR ES Executive Summary.pdf.
17. Ginns P. Quality assurance and improvement of the research higher degree experience at the University of Sydney. Paper presented at the Australian Universities Quality Forum, Adelaide, 2004. Available from: URL:
http://auqa.edu.au/auqf/2004/proceedings/AUQF2004_Proceedings.pdf.
18. Jowett C. Senates Postgraduate Studies Committee. Postgraduate Questionnaire for Research Students 05/2004. University of Edinburgh. Available from: URL:http://www.aaps.ed.ac.uk/committees/spgsc/po stgraduate_questionnaire.htm.
19. Armstrong SJ. The impact of supervisors' cognitive styles on the quality of research supervision in management education. Br J Educ Psychol. 2004; 74(4): 599-616.
20. Barnacle R. Postgraduate Research Experience Questionnaire: PREQ. 2003.
.Summary of results for Royal Melbourne Institute of Technology. 2003.
21. Changiz T, Adibi P , Hosseini M , Tootoonchi M. Viewpoints of Supervisors about the Problems in the Process of Dissertations for General Medicine Program Isfahan University of Medical Sciences.
URL http://ijme.mui.ac.ir/browse.php?a_code=A-175-1-10&slc_lang=fa&sid=1. IJME. 20003; 3(1): 23-33.
22. Kock N, Gauer IC, BuschL C, H. K. An inter-university comparison of the supervision of doctoralcandidates, should the promotion procedures be changed ? Dtsch Med Wochenschr. 2000; 125(23): 8-24.

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