

Published online: 25/05/2015 Published print: 06/2015

doi: 10.5455/aim.2015.23.155-159

ACTA INFORM MED. 2015 JUN 23(3): 155-159

Received: 18 April 2015 • Accepted: 18 May 2015

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## ORIGINAL PAPER

# Barriers to Research Activities from the Perspective of the Students of Isfahan University of Medical Sciences

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## ABSTRACT

**Introduction:** Necessity to establish a coherent and targeted research context in order to development of any country is increasingly important. But the basic step in creating an effective research context would be enrichment motivation of researchers especially students and resolve barriers of research. Therefore, the purpose of this study was to determine barriers of research activities from the perspective of students of Isfahan University of Medical Sciences. **Methods:** This is research. Data was collected with author made questionnaire. The study sample consisted of students from Isfahan medical university and sample size based on Krejcie and Morgan table was 357. Sampling was Stratified Random. The validity of questionnaire confirmed by Library and information professionals and reliability based on Cronbach's Alpha was 0.933, respectively. The type of descriptive statistics was (percentage, frequency and mean) and inferential statistics (T-test, ANOVA, one-Sample Statistics) and SPSS software was used. **Findings:** Results showed that the mean of barriers to research activities among students of Isfahan University of Medical Sciences was  $3.89 \pm 0.483$ . The highest mean was related to density of students' curriculum ( $4.22 \pm 0.968$ ) and lowest mean related to lack of access to appropriate library resources. Also, the mean of research activities' barriers, according to aspects showed that the mean in individual barriers level ( $4.06 \pm 0.635$ ) was more than other aspects: social and cultural aspects ( $4.01 \pm 0.661$ ), economical aspect ( $4.04 \pm 0.787$ ) and organizational barriers ( $3.78 \pm 0.503$ ). The lowest mean was related to organizational barriers. Also there is no difference between mean of research activities' barriers of student of Isfahan University of Medical Sciences with regarded of gender, level of education and college. **Conclusion:** According to results of this research, although, the main barriers between students was individual barriers such as: lack of sufficient familiarity with research methods, insufficient experience in research and lack of familiarity with the terms of the articles in publication, but other aspects like economic, cultural, social and organizational was in bad condition too. Therefore it is suggested that workshops related to research methodologies is executed, like proposal writing, writing articles in university especially for students and administrators support student's research activities, effectively.

**Key words:** Students, Research barriers, Isfahan University of Medical Sciences.

## 1. INTRODUCTION

Research is one of the basic and important steps for improvement of human societies, so that any scientific and logical movement without support of research is not possible (1). Today countries are classified based on their ability to generate and application of knowledge. Undoubtedly, empowerment, development and independence of the countries are directly linked to ability of science production and national development. Knowledge production and scientific development are known as all-out power of all countries. Undoubtedly, development and improvement in all areas owe to research in all areas (2). The universities and higher educational center of health ministry and medical education have three tasks in produce knowledge, transfer of knowledge (training specialist of human resources) and providing specialized services to the society. Optimal perform in any of the mentioned duties is required scientific research. Manpower employed in research center is the most important resources of a country for development and Survey research would not be possible without an accurate assessment of this factor (3). Now, these

tasks in higher education have been undertaken to faculty and student (4) but students have main role in this process. The education system needs to train manpower researchers. It is clear that if do not do so, research would not be considered as an organic and efficient activity in the educational system (4) and students face some problem in education and job, but it must be said that there are problems and obstacles in conducting research. The first step in organizing of research in society is achieving to correct perception of capabilities, resources available and also understand the strengths and weaknesses of the research program. Recognizing poverty and awareness of amount of achieving goals during research is the basic and necessary tool and should be provided to decision makers, planners, and policy makers of research. It helps them to make necessary decisions in order to achieve goals, improve methods and increase efficiency. During research we may face some problem that can be solved but sometimes we face so problem that would be obstacles for improvement in research. Identifying barriers to research can improve communication between researchers and users of research and fa-

cilitate problem solving process and actually cause to use research findings. Failure to do this will cause delay in carrying out the research work and perhaps this interruption, cause irreversible damage and research would be unsuccessful (3). Till now it has been done a lot of research about obstacles on the research activities from the perspective of faculty and other researchers. Findings research of Karimiyan, Sabaghiyan & Sedghpoor (5), Mehrdad, Salsali & Kazemnejad (6), Zohoor and Fekri (7), Kamali (8), Sharifi (9), Salemsafi (10), Sereshri, Kazemiyan and Deris (11), Roxburgh (12), Zare Ahmadi, Mansoori & Taheri (13), Shavoon and Jahed (14), Carroll And et al (15), Fink, Thompson & Bonnes (16), Closs (17), Carrión (18), Hayens and Haines (19), Parahoo and Mccaughan (20), have been examined in five aspects( Socio-cultural barriers, economic barriers, organizational barriers, educational and personal barriers ) and in these researches, individual and organizational barriers have trouble for research more than other barriers. But research on the barriers from the perspective of students, is very low. Findings of Anbari and Jadidi showed that barriers of research from the perspective of student researchers were organizational barriers but from the perspective of no researcher students, were individual barriers (21). Findings of Fazolahi showed that the most important inhibitory factors affecting students research from the perspective of students at the faculty of Teacher Education, Qom Islamic Azad University, was individual factors. In the meantime, unfamiliarity of students with using the internet and research methods, not having enough time to engage in research due to preoccupation and especially the combination of education and social responsibilities and difficult financing of student research were, respectively, the most influential factors in the retention of students in research activities and motivational and official factors were the next (22). Alai and Azami showed organizational and individual barriers are barriers research between students of Ilam University of Medical Sciences (4). Shamsi and his coworker showed organizational barriers such as lack of coherent program in making motivation and interest in research and lack of correct informing of university was the most important barriers between students (23). Research of Ghaforiyan and Yosefian (24), and Izadi and et al (25) showed that organizational barriers were the most important factor of doing research (24). Therefore, scientific research in medicine is an essentiality of what is known to lead to clinical improvement. On the other hand , universities would be successful in research when cultural research become internalize in academic community and make research as a core activities of students and it is not possible unless the students overcome barriers to research activities (21). In addition, students may face some barriers that are specific and differ from the faculty. Therefore, identifying specific barriers is essential. So the purpose of this study was to determine barriers to research activities from the perspective of students of Isfahan University of Medical Sciences in order to recognition and overcome to barriers.

## 2. METHODS

This is an applied and survey research. Data was collected with author made questionnaire. Questionnaire has developed based on the findings of other researchers. In addition, because the barriers were more investigated from the perspec-

tive of staff and faculty and in this research the goal is perspective of student, so factors related to students collected from literature and consultation with aware man and added to other factor. The study sample consisted of students Isfahan University of Medical Sciences (5999 students) and sample size based on Krejcie and Morgan table was 357. Sampling was Stratified Random. In this study, each college considered as a class. The validity of questionnaire confirmed by Library and information professionals and reliability based on Cronbach`s Alpha was 0.933, respectively. In this study, 40 questionnaires were distributed among students of different field. The questionnaire related to barriers of research consisted of 50 questions that were organized in 4 main categories. The first categories related to organizational barriers (1-29 Q), second category related to cultural and social barriers (30-35 Q), third category related to individual barriers (36-46 Q), and fourth category related to economic barriers (47-50 Q). 5-item Likert scale questionnaire was designed (strongly agree, agree no comment, disagree and strongly disagree). In present study, completely agree got 5, agree got 4, no comment 3, disagree 2, and completely disagree 1. The type of descriptive statistics was (Percentage, frequency and mean) and inferential statistics (T-test, ANOVA, one-Sample Statistics) and SPSS software was used.

## 3. FINDINGS

This study aimed to determine barriers to research activities from the perspective of student of Isfahan University of Medical Sciences. Result showed that 61.8 % of students were women and 38.2% were men. The most of under graduate students were 52.4% and lowest ones related to PhD students with (1.00) %.

Results showed that the mean of barriers research activities among students of Isfahan University of Medical Sciences was  $3.89 \pm 0.483$ . The highest mean was related to density of students' curriculum ( $4.22 \pm 0.968$ ) and lack of sufficient familiarity with methods of research ( $4.22 \pm 0.915$ ), lack of experience in doing research ( $4.21 \pm 0.877$ ) and the lack of research culture in society ( $4.17 \pm 0.863$ ) and lowest mean respectively related to lack of access to suitable librarian resources ( $3.30 \pm 1.118$ ), no effect of research finding in people's life ( $3.80 \pm 0/157$ ) and no need for people to research results ( $3.80 \pm 1.125$ ) (Table 1).

Also, the mean of research activities `s barriers, according to dimensions showed that the mean in individual barriers level ( $4.06 \pm 0.635$ ) was more than dimensions: social and cultural dimensions ( $4.01 \pm 0.661$ ), economical dimension ( $4.04 \pm 0.787$ ) and organizational barriers ( $3.78 \pm 0.503$ ). The lowest mean was related to organizational barriers (Table 2). The findings related to effect of gender on the mean showed that significant level (0.82) was more than  $\alpha=0.50$ , so the mean difference of research activities barriers is not significant in terms of gender. The findings related to effect of university degree on the mean showed that significant level (0.253) was more than  $\alpha=0.50$ , so the mean difference of research activities barriers is not significant in terms of university degree. The findings related to effect of college on the mean showed that significant level (0.085) was less than  $\alpha=0.50$ , so the mean difference of research activities barriers is not significant in terms of college.

Number	Choice	Mean and Standard Deviation
1	Lack of access to counsel and appropriate guide in research	3.79± 1.174
2	Lack of sufficient awareness of the importance of student's research	3.64± 1.064
3	Cumbersome regulatory and acceptance criteria of publishing article in journals	3.78± 0.932
4	Not enough incentive tools	4.11± 0.911
5	Failing to account research activities in the students' final grades	3.52± 1.115
6	Lack of access to adequate library resources	3.30± 1.118
7	Lack of cooperation of organization in conducting research	3.79± 0.871
8	Lack of awareness to institutional research priorities	3.90± 0.903
9	Not selected student researcher rightfully	3.83± 1.049
10	Not familiar with the organizational rules and regulations carried out in research	4.01± 0.897
11	Lack of appropriate allocation of credit in accordance with the principles of research in university courses	3.67± 1.141
12	Unwillingness of faculty to work with student in research activities	3.49± 1.063
13	Lack of facilities and equipment necessary to do research (computers, printers,)	3.59± 1.212
14	Time limits for research	3.79± 1.006
15	Expect to get positive result from research	3.67± 0.983
16	nonimpact of research activity in the employment of bureaucracy	3.66± 1.036
17	Lack of constraint in doing research activities for students	3.44± 1.201
18	Lack of systematic research cores for students in Schools	3.77± 0.985
19	lack Seriousness about student's research activities	3.87± 0.995
20	Lengthy process of review and approval of research projects	4.00± 0.922
21	Lack of professional librarians to guide the use of resources	3.84± 1.019
22	inequality in the adoption and implementation of student research projects to other researchers	3.72± 0.948
23	Density of the students' curriculum	4.22± 0.968
24	Not having adequate education for participation in congresses and seminars	4.03± 1.017
25	Not using of result by organizations	3.89± 0.924
26	Lack of dynamism and efficiency of the education system.	4.00± 0.952
27	No impact of the research activities in admission of students in the higher education sectors	3.56± 1.106
28	Difficult to accept student papers in academic journals	4.00± 0.951
29	Difficult to accept student papers at national and regional seminars	3.83± 0.938
30	The lack of research culture in society	4.17± 0.863
31	No proper place in society for research	4.08± 0.963
32	Not effect of the results of research activities in public life	3.80± 0.157
33	Not counting the researcher as a business in society	4.15± 0.997
34	No need of people to research results	3.80± 1.125
35	Lack of appropriate scientific and research space	4.08± 0.924
36	Lack of interest or motivation to do research	3.99± 1.045
37	Lack of proficiency in English	4.12± 1.076
38	Lack of sufficient familiarity with research methods	4.22± 0.915
39	Not adequate familiarity with statistics	4.13± 1.007
40	Lack of time and a lot of concern (family and community)	4.06± 1.084
41	Unfamiliarity with the help of other researchers carrying out their research	4.10± 0.931
42	Lack of information about the search and evaluation of online library materials	3.98± 1.018
43	Inability to recognize areas of research	4.00± 1.016
44	Force to use a special framework and method of research (e.g., methods, tools,)	3.75± 1.050
45	Insufficient experience in research	4.21± 0.877
46	Unfamiliarity with the acceptance criteria and published articles in various journals	4.16± 0.876
47	Failure to allocate sufficient funds for student research	4.13± 0.932
48	The lack of cost-effective of research activities to other activities	3.99± 0.977
49	Lack of timely payment of fees for research	4.02± 0.973
50	Differentiate between the fees of students to faculty	4.05± 0.995

Table 1. The mean and standard deviation related to barriers of research activities of students of Isfahan University of Medical Sciences

#### 4. DISCUSSION

The development of a country owe to scientific and technological research. Therefore necessity of making a coherent and targeted context in development of research system of country is really important. But main step in making an effective and sufficient context need to motivate faculty and researchers especially students in doing research and eliminate barriers of doing research (21).

In this research the barriers of research activities were

studied Isfahan University of Medical Sciences. The finding showed that the mean of research activities barriers among students of Isfahan medical university is more than average. Also, the highest mean related to density of students' curriculum and lack of sufficient familiarity with research methods, insufficient experience in research and lack of research culture in society. In research of Javadian, the educational system and mismanagement, lack of motivation and research facilities were the main obstacles (26). Javaherzade stated that lack

Dimensions	Mean And Standard Deviation	df	t	P-value
Organizational barriers	3.78±0.503	373	30.032	0.000
Cultural and social barriers	4.01± 0.661	373	29.631	0.000
Individual barriers	4.06±0.635	373	32.409	0.000
Economic barriers	4.04± 0.787	373	25.743	0.000
Barriers research	3.89±.0483	373	35.717	0.000

Table 2. The mean of barriers to research activities Isfahan University of Medical Sciences's students Based on dimensions and one-Sample T-test.

of familiarity of professor with research and lack of interest in doing research among students were the main obstacles (27). Izadi showed that lack of knowledge of students to research and lack of support of research director in doing research by students were the main obstacles (25). Javadinia stated that lack of students' familiarity with to benefits of research in future was the main obstacle (28). The lowest mean related to lack of access to librarian resources , non-effect of research activities' finding in peoples' life and lack of feeling need to research that is not favorable with research of Alai and Azami. Because in this research pointed to lack of librarian equipment and lack of attention to research position as a main barriers of research (4).The finding related to barriers of research activities between students of Isfahan University of Medical Sciences according aspects showed that the mean in the level of individual barriers were more than other aspects: cultural and social, economic and organizational barriers and lowest mean related to organizational barriers. This result is not in favorable with the research `s result of Alai and Azami (4), Izadi and et al (25), Mirkhesti and et al (21). Because in this research showed that organizational barriers were the main factor. But in research of Nikrooz and et al Individual barriers were the effective factor in doing research among students (30). The findings related to effect of gender on the mean showed that the mean difference of research activities barriers is not significant in terms of gender. It seems gender factor was not effective in this research. This result was in favorable with the research of Anbari and Jadidi (21), Ghafournia and Yousefian (24). The findings related to effect of educational degree on the mean showed that the mean difference of research activities barriers is not significant in terms of educational degree that is in favorable with the research of Nikrooz and et al (30). It seems that kind of college where students learn was not effective in this issue. The findings related to effect of college on the mean showed that the mean difference of research activities barriers is not significant in terms of college. This result is in favorable with the research of Anbari and Jadidi (21) and, Mirkheshti and et al (29).

## 5. CONCLUSION

One of main method in developing potential talent of students is research and it depends on strengthen motivation and facilitate the field of research by students. According to findings of this research, the main barriers of doing research were, individual barriers like lack of familiarity with research methods, lack of experience in doing research, and lack of familiarity with role of publishing articles in journals, but other barriers like economic, cultural , social and organizational situation were effective too. Therefore it is suggested that workshops related to research methodology is executed,

like proposal writing, writing articles in university especially for students and administrators support student's research activities, effectively.

### Acknowledgments

The researchers hereby acknowledge the cooperation of all university students and colleagues who supported their research. This article resulted from an independent research without financial support and there are no conflicts of interest.

**CONFLICT OF INTERESTS: NONE DECLARED.**

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