

Faculty Retention in Medical Universities in the County Cities of Iran: A Qualitative Content Analysis

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Research article

Keywords: Attrition, Faculty, Retention

Posted Date: December 18th, 2019

DOI: <https://doi.org/10.21203/rs.2.15507/v2>

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Abstract

Background and purpose: Faculty are the cornerstone of academic medicine and are important assets for any institution offering higher education. Recruitment and retention of capable faculty are essential to maintain and improve the quality of education and research performance of universities. The purpose of the present study is to discover the views, experiences, and attitudes of faculty to identify the reasons for attrition and retention of faculty in the medical universities of county cities of Iran. **Methods:** This is a qualitative study and the method used is of content analysis. The participants included 12 faculty transferred to type 1 university, 4 faculty with transfer request, and 4 faculty members with more than ten years of experience working in the University of county cities no relocate request. Data were collected using semi-structured interviews face to face and via telephone. To measure the trustworthiness of the data, we used four components of credibility, transferability, dependability, and confirmability proposed by Lincoln and Guba. **Results :** The findings were divided into 3 categories and 14 sub-categories: the first category was the retention attractors, including 4 sub-categories of facilitated communication, proximity to type one university, gaining experience, and support of authorities; the second category was the retention threats, including 6 subcategories of social infrastructures, individual dimension, occupational dimension, economic dimension, sense of respect, and executive management dimension; and the third category was the retention strategies, including 4 sub-categories of the process of recruiting and promotion, inter-university collaboration with type one universities, facilitating scientific growth, and fulfilling the safety needs. **Conclusion :** Several factors play role in the retention of faculties in medical schools. Authorities can create a more positive environment by devising a suitable reward system, supporting academic activities, and increasing the level of practical autonomy of faculty to develop a sense of belonging among the workforce, and reduce the intention to transfer of their human resources.

Background

Faculty are the cornerstone of education in medical science[1] and are important assets for any institution offering higher education[2]. Determining the place and rank of universities in the national and international arena is also dependent on the faculty[3]. On the other hand, recruitment and retention of talented faculty are also crucial to maintain and improve the quality of education and research performance of universities[4]. One of the type one challenges faced by small medical schools is recruitment of faculty, which, due to complexity and difficulty of its process, puts individuals and institutions under pressure[1]. A much bigger challenge is the transfer or attrition of faculty. According to a study conducted in the United States, out of ten faculty, five are transferred over ten years[5]. In their study, Fang and Bednash (2014) reported that 11.8% of full-time faculty who worked in 2010 left their full-time jobs by 2011[6].

Concerns about the retention of faculty are usually due to the fact that transfer of faculty imposes heavy costs upon universities, such as loss of recruitment investment, recruiting substitute faculty, and a long recruitment process. Also, the negative impact of substitution and early transfer of faculty causes an interruption in education and counseling, which has extensive consequences to the academic system[1,

7]. On the other hand, the criteria for retention of faculty are often vague and there is no transparent mechanism for retaining faculty at their recruited university[2]. However, various studies have been conducted in higher education institutions to identify the factors affecting the retention of faculty. In this regard, Soomro and Ahmad (2013) suggested some solutions in the field of education, research, and community services to retain the faculty[2]. Breslow's study, on the other hand, showed that some faculty moved for personal reasons, unsupported working environments, and holding better positions[8]. Lee (1982) also found in his study that the attrition of faculty for personal reasons, job dissatisfaction, and low salary at state universities was slightly higher than that of the schools of social and technical sciences[9]. Nonetheless, structured programs seem to be effective in faculty development, while motivating and enhancing the quality of students' learning and progress, leads to the retention of faculty. Ries et al. (2012), in the National Center of Leadership in Academic Medicine (NCLAM) at the University of California, identified that programs including professional development workshops, strategic planning, individualized academic performance counseling, mentoring with a senior faculty member focused on a professional development, and network-building with other faculty to promote assistant professors in health sciences has had a significant impact on the retention of new assistant professors[1]. Locke's study also showed that faculty of different regions have different attitudinal and behavioral patterns that are shaped by the distinct epistemology, organizational commitment, and social relationships[10], which can be very effective in the retention of faculty. Thus, universities need to design and implement a program for the complex process of recruiting faculty to maintain their human resources and reduce negative consequences of faculty transfer.

In Iran, faculty members are recruited through recruitment recall of faculty members in a competitive space and after approval of the scientific and general competencies of candidates at relevant authorities. The attrition of faculty in small schools is one of the main problems in academic medicine in Iran. It seems that despite international and national interest in the retention of faculty, few studies have been conducted on the retention of faculty at the medical universities of the country. Undoubtedly, the examination of effective methods in the retention of faculty plays an important role in improving educational and research status. Therefore, it is crucial to study factors affecting the retention and attrition of faculty. Due to different attitudinal and behavioral patterns that are influenced by multiple cultural factors and can lead to the different faculty views about the desire to move, the purpose of the present study is to discover the views, experiences, and attitudes of faculty to identify the reasons for the attrition and retention of faculty.

Methods

Participants and study design

This paper is the first round of modified Delphi. Our goal in the first round is to understanding of the lived experience. Then we use a qualitative content analysis. Also we will investigate for consensus.. Content analysis is an approach which provides new knowledge and insight into a particular phenomenon. It leads to valid inferences from data and is suitable for examining the experiences and views of people

towards the issue of interest[11]. The main purpose of qualitative studies is to describe or discover a phenomenon, problem or subject, and examine a wide range of questions related to experiences, knowledge, attitudes, emotions, and perceptions of individuals[12]. In qualitative study, the main approach is purposive sampling[13]. In this research, participants were selected purposefully to obtain the highest level of information and continued to reach saturation. They were twenty transferred faculty or those who had requested to be transferred and those faculty with more than ten years of experience working in county cities no relocate request, despite their family living in big cities.

The purpose was to identify their experiences, tendencies, and views on the reasons for their retention and attrition. The data collection process was that the participants were first identified and contacted to gain participation, then explanations regarding the research and its goals presented to them and their consent to participate in the study were obtained. Arrangements were then made on the appropriate time and place for the interview. Out of 20 interviews, 16 were face-to-face and 4 were telephone interviews. At the beginning of the interview, to obtain informed consent, we request permission to record the interview, while the participants were assured that their personal information would be treated strictly confidential. The sample size was extended for the theoretical saturation[11]. Interviews lasted 45-60 minutes. They started with the general question "What do you think is the reason for the attrition of faculty in academic medicine?", and continued with the questions such as "What are the factors affecting the retention of faculty in medical schools?", "What are your suggested strategies for encouraging faculty to remain at small schools?", and follow up questions.

To analyze the data, a qualitative content analysis was used with the inductive reasoning approach. To this end, the data were read up until the saturation occurred and semantic units extracted. In the next stage, after summarizing the units, the condensed semantic units were extracted that were short in terms of the number of words and semantically equivalent to the semantic units. Then the semantic units with the semantic similarity were converted into code by getting the label. At this stage, we used peer-checking to ensure the trustworthiness of the data interpretation. The number of primary codes was 123, which reduced to 90 after merging similar codes and removing identical ones. This stage was revised several times with the views of the contributors. In the next stage, after comparing the codes, they were divided into sub-categories. The next stage included modifying the subcategories map. The subcategories were constantly compared and reviewed during the process so that some of them, based on common or different characteristics, were merged or separated and formed a new subcategory. At the last stage, the subcategories which seemed to have common characteristics were merged in the common or the main categories.

To measure the trustworthiness of the data, we used four components of Credibility, transferability, dependability, and confirmability proposed by Lincoln and Guba[14]. Credibility was obtained through member check and prolonged engagement. In this regard, the texts of the interviews and the derived codes were returned to the participants (n=8) and they were asked to comment on the researchers' perceptions of their statements and to correct any variations. Transferability was maintained through sampling with maximum variation, providing thick descriptions and straightforward examples of the

data, and informed consent of participants. Dependability was achieved when participants provided identical answers to the same questions. Finally, to obtain confirmability, we tried to avoid any bias toward the data in which the findings of the study were grounded and shaped by the respondents[14, 15].

Results

The participants were 20 faculty, including 12 male and 8 female. Three of the participants had managerial positions. The interpretation of the data revealed many factors concerning the retention of faculty in medical universities. The findings of the qualitative content analysis on the retention of faculty were divided into 3 categories and 14 sub-categories. The results were shown in Table 1. The review of the participants' opinion revealed different results that could be a function of the different conditions of the departments or faculties of a medical university.

The first category was the retention attractors, including 4 sub-categories of facilitated communication, proximity to type one university, gaining experience, and support of authorities. Summary of the participants' views in these subcategories included facilitated interpersonal relationships, friendly working atmosphere, better cooperation, intimate communication, greater opportunities for junior faculty to teach and promote, more salary, more efforts by authorities to solve problems and administrative bureaucracy.

In Iran, universities of medical sciences are evaluated and categorized into three types by the Department of Research and Technology of the Ministry of Health based on four scores on administration, empowerment, science production, and student research. Typically, top universities are in Type 1, developing universities are in Type 2, and newly established universities are in Type 3. Type 1 universities include Tehran, Iran, Shahid Beheshti, Mashhad, Isfahan, Tabriz, Shiraz, Ahwaz, and Kerman are located in the developed cities. Some of type 2 or type 3 universities are located in the county cities or in the less developed cities.

Participant 4: *"In type 3 universities, there is a more intimate atmosphere and things are done more easily; lesser workload and convenient interaction with university staff are the reason for my retention."*

Participant 1: *"The education system was great for me. The living standard was excellent, because our home was at the university; we could live and work."*

The second category was the retention threats, including 6 subcategories of social infrastructures, individual dimension, occupational dimension, economic dimension, sense of respect, and executive management dimension. The main threats to the retention of faculty were the social infrastructures and individual dimension. Social infrastructures mean underdevelopment and lack of adequate facilities such as advanced training centers, recreation centers, and sports clubs and so on in small towns. This makes it possible for a faculty member to stay away from family and to spend weekends commuting between her family's home town and her workplace. It, therefore, increases the tendency for faculty members to relocate.

Summary of the participants' views in these subcategories included lack of living and medical facilities in cities, cultural differences of non-native faculty, willingness of faculty to live with their family members, lack of facilities in faculty houses in universities, ignoring faculty academic activities by authorities, dissatisfaction with increased administrative workload, poor performance of school officials in attraction and recruitment of faculty, lack of enough facilities for faculty children in cities, unlimited opportunity for academic activities in type one universities, and a better image of financial situation about type one universities.

Participant 12: *"What facilities did they provide for me to remain in the university? Now, I regret having remained here. Why shouldn't I go to another university for a few more years?"*

Participant 10: *"The main reason I moved was my family."*

Participant 6: *"Some new technologies are available at type one universities."*

Participant 16: *"Since morning, there's so much work to do that I do not even have the time to do my work (education and research); for example, about retraining, whether the workshop was held or not..."*

The third category was the retention strategies, including 4 sub-categories of the process of recruiting and promotion, inter-university collaboration with type one universities, facilitating scientific growth, and fulfilling the safety needs. Summary of the participants' views on the process of recruiting and promotion included the recruitment of native faculty members (who live in the remote area), planning to recruit faculty during their PhD or specialty period based on their resume, a longer period of commitments, committing faculty to an extended period of retention, facilitating the process of recruitment of faculty, shortening the time for promotion. communicating with faculty of type one universities and introducing their concerns, making research contracts with the aim of using the facilities of type one universities, providing the opportunity for faculty of schools to experience working in type one universities, doctoral and postdoctoral fellowships, macro planning for introducing further non-financial incentives such as educational workshops and sabbatical leaves; facilitating the promotion of staff, improving communication with industry, providing the possibility of education and research development, giving permission to clinical faculty to have specialized private activity, providing financial and non-financial incentives, macro planning to increase the salaries of faculty of schools, granting ministerial facilities to the schools for providing accommodation, providing job security, selecting permanent managers of schools to motivate faculty, support of new faculty by officials, introducing the facilities and favorable conditions of schools, and the need for social policy in cities with schools.

Participant 3: *"Residents at other universities should be identified, their resume and CV should be taken and be employed in the university."*

Participant 4: *"They can treat more flexibly. A university which has the master and Ph.D. course, naturally has professors with eight to ten articles. However, they should write a proposal and collect data in type 3 universities. I think the promotion condition should be facilitated in deprived regions."*

Participant 17: *"It is possible to sign contracts with type one universities and use their facilities."*

Participant 2: *"Since faculty are allowed to establish knowledge enterprises, the universities should support these enterprises."*

Participant 15: *"A manager should first manage oneself and be honest. Most of the managers are willing to be transferred to type one universities so that have the opportunity to promote. The manager oneself should have come to the conclusion that the ... school is excellent and be satisfied with working there."*

| Sub-categories | Categories |
|--|----------------------|
| Facilitated communication | Retention attractors |
| Proximity to type one university | |
| Gaining experience | |
| Authorities' support | |
| Social infrastructures | Retention threats |
| Individual dimensions | |
| Occupational dimensions (education and research) | |
| Economic Dimensions | |
| Sense of respect | |
| Executive management dimension | |
| Recruitment and promotion process | Retention strategies |
| Inter-university collaboration | |
| Facilitating scientific growth | |
| Fulfilling safety needs | |

Table 1. Categories of the retention of faculty

Discussion

Universities play an important role in the development of the country's human resources, and the faculty are identified as the key component in fulfilling the goals of universities. For this reason, the recruitment and retention of faculty are always considered controversial. This study aimed to identify the reasons for attrition and retention of faculty and provide suggestions for the extended retention of faculty in medical schools.

Our findings on retention attractors included facilitating communication, authorities' support, proximity to type one universities, gaining experience. In their study, Hendrickson et al. (2013) considered the satisfaction of faculty to be relevant to their role in fulfilling the mission of the university[16]. It seems that the efforts of university authorities to create favorable human relationships and to focus on institutionalizing it in the university atmosphere will pave the way for the retention of faculty, which requires special attention of the officials. Dittmer (2017) showed that the university atmosphere and the

satisfaction of working with colleagues affects the retention of faculty[17]. Also, our results were consistent with Mirkamali et al. (2015) study on providing a safe environment to facilitate teamwork for the retention of employees[18]. In this regard, the reduction of administrative bureaucracy, the efforts of authorities to solve the problems of faculty, and improving their quality of life are among factors influencing feeling satisfied and happy. Welfare and educational facilities in small towns and supportive atmosphere in small universities, and the positive attitude towards the university management system can cause a safe environment and a sense of security that enforce the retention of faculty. Most participants believed that educational facilities and welfare can provide a happy and healthy environment that creates a sense of security and removes their anxieties about the future.

Johnson's study also showed that improving faculty's quality of life and providing a high level of job satisfaction improve the retention and promotion of faculty[19]. Therefore, it is crucial to pay special attention to the needs and requests of faculty and to solve their problems. Another retention enforcer is providing the development programs and the job opportunities for the growth of faculty. It seems that the provision of individual development programs in line with the faculty professional background will help the retention of the human resources of the universities. In this regard, the use of educational programs of the type one universities could improve the individual development and the retention of faculty. The study by Ries et al. indicated that the retention of faculty is dependent on job satisfaction and their academic progress[1].

Regarding the retention threats, the lack of necessary social infrastructures, and individual, occupational and economic dimensions at the workplace were among the factors affecting the transfer or substitution of faculty. Lack of suitable living facilities in cities eliminates the possibility of faculty companionship with their family and encourage them to move. The sense of belonging to a new environment is the basic need of every individual. The lack of sense of belonging to the new environment is exacerbated by the absence of family and increases the tendency to move. On the other hand, factors such as climate, the favorable urban environment, living facilities, clubs and recreation centers, and the possibility of private sector activities enable the faculty to stay with their families which will result in the retention of faculty.

In Iran, basic and clinical sciences faculty are considered geographic full-time and are not permitted to have specialized private activity except in limited cases with the permission of the university and approval of the Ministry of Health. Faculty member is not permitted to perform private profit-making activities out of university (including work in personal office, personal pharmacy, laboratory, personal diagnostic centers, educational centers, charity and private hospitals, etc.). Thus faculty tend to enjoy the possibility of private activities. The researchers believe that increasing salaries and benefits and providing job security can reduce the need to pursue private activities and provide conditions for faculty retention in small universities.

Since the change in infrastructures of cities does not solely depend on universities, it is crucial that university administrators while making policies of recruitment of faculty, pay special attention to cultural differences, the faculty's demand to live in remote area and devise plans for recruiting indigenous faculty

members. Cultural convergence is one of the important issues that requires the attention of authorities when recruiting faculty.

The cultural difference means that faculty who recruited in type two or type three universities, which are mainly located in county cities, feel a difference between their lifestyle and the new community. These faculty are concerned about cultural rejection and the future of their families. So they are often forced to live apart from their families and commute weekly between the place of residence and employment, which leads to the attrition of faculty.

Therefore, it is advisable to consider the individual characteristics and desires of the applicant in all dimensions for example faculty lifestyles, interests, and concerns in the recruitment programs. Furthermore, the provision of social welfare services at universities located in remote cities is one of the issues that should be taken into account by planners of these universities. Providing the opportunity for the economic growth of the faculty requires the universities communication with industry and reduction of constraints on the private jobs of basic science and clinical faculty. Lord and Farrington (2006) also believe that employees of a system need to provide a safe and secure environment for their families to remain in their job[20]. Lindfelt et al. (2018) also found that the balance between work and life among faculties was effective in reducing their intention to change their job[21]. Besides, the lack of sense of respect from officials was another issue that threatens the retention of faculty. The results of Horwitz et al. study in Singapore were consistent with these finding[22]

Retention strategies were another category in this study. As much as the recruitment of faculty is important for schools, the use of appropriate methods and strategies for the retention of faculty is crucial. To improve the retention of faculty of schools, authorities must provide faculty with an opportunity for growth through creating research opportunities and inter-university collaboration with type one universities.

In type one universities, postgraduate students are usually residence, and professors have better conditions for professional development through interaction with these students, while these conditions are not available in all of the type 2 or 3 universities that located in deprived area. The majority of participants believed that if conditions were facilitated so that they could participate in academic and research programs of type one universities at least two days a week, their professional development would be facilitated.

Murugappan and Durga (2015) suggested that providing career and research opportunity strongly affects the retention of faculty[23]. The recruitment of indigenous faculty members and facilitating the promotion of faculty can also be one of the ways to retain faculty. Our findings were consistent with Nderitu's (2014) study on the impact of transparent policy on the recruitment, promotion, and retention of faculty[24]. Also, the results of this study showed that getting a longer commitment could affect the retention of faculty. Lavania et al. (2011) suggested adopting flexible policies and programs for the retention of faculty[25]. Besides, it is crucial to pay special attention to the individual, economic, and social needs of faculty.

This study had some limitations, the most important of which was persuading the faculty to participate in the study. We attempted to emphasize the objective of the study on improving the situation of the faculty in universities and that their personal information would be treated strictly confidential. Another limitation was that the number of basic science faculty was higher than clinical science. Considering that Iran is a vast country with different cultural characteristics, further research is needed to explore the factors affecting the retention of faculty. Moreover, identifying these factors can help government making policies on the process of recruitment and retention of faculty.

Conclusion

The present study suggests that several factors contribute to the retention of faculty in medical universities in county cities. The role of the authorities' support in facilitating the retention of faculty is significant. They can establish an appropriate system for recruitment and promotion of faculty, support their academic activities, build a proper network with type one universities, and provide individual development programs so that more faculty can attend educational programs at type one universities. They should create a more positive environment to foster a sense of belonging among their human resources and reduce their intention to move to another university. The solutions presented in this study can affect the extended retention of faculty.

Declarations

Ethics approval and consent to participate:

The study was approved by research ethics committee of Fasa University of Medical Sciences (Number of ethics code: IR.FUMS.REC.1398.044). The written consent was obtained from all the participants. After the purpose was stated and the methodology was described, written informed consent was obtained from all participants. In all research steps, confidentiality was observed and codes were used to refer to the participants for reporting the findings. Furthermore, the participants were ensured that they could withdraw from the Study at any time. The characteristics of the participants have been presented using code identifiers.

Consent for publication

Not applicable.

Availability of data and materials

The data that support the findings of this study are not publicly available, but can be obtained from the authors on reasonable request. All data are available from the corresponding author on reasonable request.

Acknowledgments

The researchers thank all faculty participating in this study and the Research and Technology Department of Fasa University of Medical Sciences for funding this research.

Author contributions

SHK developed the design of this study. MSJ performed statistical analyses. All authors contributed to the analyses and writing of the paper. All authors read and approved the final version. All authors contributed toward data analysis, drafting and revising the paper, gave approval for the final version to be published and agree to be accountable for all aspects of the work.

Competing Interest

"The authors declare they have no conflicts of interest with regard to the work presented in this report".

Funding

The study was financially supported by Fasa University of Medical Sciences, Fasa, Iran (Grant No. 97260).

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