RESEARCH ARTICLE

Evaluation of the geriatric curriculum implemented at Shiraz University of Medical Sciences, Iran, since 2017: A qualitative study [version 1; peer review: 1 approved with reservations]

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Abstract

Background: Recently, there has been an increase in life expectancy due to improvements in nutrition, health, and sanitation. The aim of this study was to evaluate the geriatric curriculum in the field of general medicine at Shiraz University of Medical Sciences (SUMS), Iran to improve the quality of services provided to this population in the community.

Methods: This was a qualitative study. Six educational hospitals and ambulatory centers of Shiraz University of Medical Sciences participated in this study. Within these centers, 15 medical education faculty members and educational experts, 6 medical students, 6 elderly patients and 6 nurses working in the university related to the geriatric field were selected using purposive sampling. Data were gathered through semi-structured interviews, focus group discussion and field observations in the teaching hospital and ambulatory setting of SUMS from June 2017 to May 2018. Based on the qualitative research, the data underwent conventional content analysis and the main themes were developed from this.

Results: Three main themes were extracted from the data: effective clinical education, geriatrics curriculum challenges and promotion strategies for geriatric medicine. Subcategories that emerged were a competent curriculum teacher, a challenging program, management of resources, promotion of the program, and the revision required in the curriculum, which were related to other concepts and described in the real-world situation of the geriatric curriculum in the university, as observed in field observations.

Conclusions: This study identified three concepts as main themes that can be used to explain how to implement a geriatric curriculum in a medical university. The main contributing factor to different views of the participants was identified as the revision required to the curriculum for integrative care in a geriatric patient. This should be

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Any reports and responses or comments on the article can be found at the end of the article.

taken into consideration while planning any programs and decisions aimed at education of medical students on this topic.

Keywords

Geriatric Curriculum, Evaluation, Qualitative Research, General Medicine

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Introduction

One of the issues that the medical profession has to face is prioritizing elderly care, as the number of older people suffering chronic illness and multiple comorbidities is on the rise¹. For example, in Ireland research shows that individuals aged 65 years and over make up 11.6% of the population in 2011, which is believed to reach 22% by 2041², while in Australia, it is predicted that the number of individuals aged 65 years and over will increase from 13% in 2007 to 23% in 2061¹. Aging population is on increase both in developed and developing countries³. According to evidence⁴, individuals over 65 years old make up nearly two thirds (65%) of those admitted to hospital in the UK^{4,5}; also, studies show that 34–59% of individuals over 75 years old take five or more drugs according to their medical backgrounds⁶. Most hospital beds are occupied by older patients and they have a lengthy stay (more than 30 days)³, functional decline, high re-admission rates, falls, and institutionalization².

Following the rise in life expectancy and medical advances, multi-morbidity and poly-pharmacy has increased recently; this trend has been very significant in the elderly⁶. Hence, the medical profession needs to handle these patients effectively^{1,7,8}. However, research conducted in the UK shows that medical undergraduate students have not been trained for treatment of these patients sufficiently, and it was also reported that less than two weeks of a five-year educational program had been dedicated to elderly health care^{1,9}. In Australia, medical students spend 78% of their clinical placement time in hospitals; however, only 0.5% this time is dedicated to residential aged care facilities¹. The number of geriatric fellowship-trained physicians (geriatricians), who provide appropriate care for older adults, is not expected to meet the needs of a growing aging population. As a result, many older adults will rely on general physicians for their care¹⁰.

The main challenge to which researchers and planners of community and health services in the twenty-first century face is a better quality of life. To reach this end, geriatric medicine is recommended to be included in the curriculum of medicine.

A specific geriatrics curriculum has been designed and implemented in Shiraz University of Medical Sciences, Iran since June 2017. The purpose of this study is to evaluate this curriculum. Educational evaluation aims to determine the effectiveness, quality of a program, processes, goals and the curriculum itself¹¹. Today, due to the significant changes that have emerged in educational systems, evaluation is one of the most widespread and important components of curriculums through which we can find out the achievement levels of specific goals of the curriculum and also deficiencies in its design. If necessary, the educational activities can then be improved or revised^{12,13}. Using curriculum evaluation as a determinant of economic, cultural, social and educational development is very common¹². However, in evaluation of education, quantitative approaches which contribute to understanding the educational process are usually used; however, the main goal of educational evaluation is improvement of the conditions of educational contexts, and this cannot be assessed using quantitative research¹⁴.

Since Shiraz University of Medical Sciences designed and implemented the geriatrics curriculum from 2017 the aim of this study was qualitative evaluation of this curriculum using a content analysis method. Furthermore, dissatisfaction of graduates, faculty members and students to the curriculum and concerns of educational staff about general medicine educators were also assessed in this study.

Methods

Since the main objective of this study was to evaluate the geriatrics curriculum, a content analysis approach was applied for data collection. Therefore, the present study is a qualitative research using content analysis which focuses on systematic human experiences and human science paradigms¹⁵. In fact, this method attempts to clarify the structure or nature of an experience in order to describe a phenomenon correctly¹⁶. Therefore, in this study we used the participants' experiences, perceptions and interpretations of geriatric issues and the associated problems, aiming to detect new perspectives to be used in educating medical students in this regard.

Research environment

In the present study, the settings for the delivery of medical services related to geriatric medicine, including clinics, hospitals and public and teaching centers, in Shiraz were selected as the research environment.

Sampling methods

In qualitative research, the participants are selected based on purposive sampling so that the individuals selected have experience of the topic being assessed¹⁷ and their experiences serve as the data¹⁸.

For this reason, in this study the participants were selected from the medical students of various levels in clinics, clinical professors involved in the geriatrics curriculum, elderly patients, clinical nurses and key informants who were involved in curriculum planning and needs analysis.

These participants were introduced to the education development center of the university. At first, they were selected by purposive sampling to encompass a maximum variation in work experience, and field of experience. Sampling was continued to data saturation, resulting in selection of six medical students undergoing training courses in hospitals and teaching clinics of Shiraz University of Medical Science, six elderly patients (four admitted patients, and two outpatients), 15 faculty members and health education experts, and five employed nurses.

Data collection

Three observation methods were used in the study for data collection: observation with no participants (field observations), and semi-structured interviews and focus groups with participants.

Semi-structured interviews. At first, the interviews started with a general question; however, in the process of the interviews

more specific questions were asked based on initial interviews and the development of the main themes alongside the research purposes. After the general question, exploratory and more in-depth questions were asked based on the participants' responses. The interviews were audio recorded and downloaded verbatim, and key points were noted. Each interview lasted for 50 to 75 minutes. Any ambiguous responses during interviews were followed up in order to be clarified, or if clarification was required after the interviews were finished, the participants were asked to be interviewed again in order to clarify the point and delve further into the issue.

Field observations. The observations were also made in the field determined and the evidence of curriculum and individuals and training staff's interaction with each other and the elderly was considered.

Focus group discussions. A focus group session was held after interviews by participation of representatives from educational groups in two meetings of educational centers. The participants' statements were completely recorded and noted. All of the interviews and observations and the results of the focus group were typed and analyzed.

A written invitation was sent to all selected participants. A conference room of a study center with a U-shape table was considered for the meeting and the participants were reminded to take part in the session the day before. In the first meeting, a central group discussion began with presentation of a 5 minute movie of clinical subjects, then the subjects were discussed by the participants. In the second session, the previous discussion was continued after a summary of the first day discussion was provided. The discussions were recorded. In order to prevent data bias, the data were reviewed several times and noted by two researchers (L.B & F.J). Focus group questions can be found in [Supplementary File 1](#).

Data analysis

Conventional content analysis was used to analyze the data collected. Only the data gathered from the focus group and interviews through meaning association were analyzed and we didn't used the data from the direct observations. Data analysis began reading transcripts repeatedly until a complete overview was achieved¹⁹. One of the researchers (FJ) based on his perception and understanding of the text, wrote an initial analysis

in order to create preconditions for emerging codes and themes. The themes that emerged were categorized based on their similarities and differences. This categorization was performed by organization and categorization of codes in meaningful clusters. Subsequently, considering the quality of the relationship between subcategories, the researchers could reduce the categories by combining and organizing subcategories.

In order to increase the reliability, revision of the themes was done in two stages, one after completion of 10–50% of categorization and the other at the end of categorization. Then the researcher (FJ) prepared a report according to the themes identified for the requirements, problems and strategies needed to help elderly health care, which was arranged as a table and discussed and reviewed by the participants in the focus group meeting.

Ethical statement

This study was approved by the Ethics Committee of Shiraz University of Medical Sciences (approval number IR.sums.med.rec.1396.s316). In addition, verbal and written information about the study (the purpose of study, how to cooperate, advantages and disadvantages of participating in research and data records, the role of researchers and participants, and optional participation in the study were presented to the participants, and participants provided written consent to participate.

Information including name, interview tapes and texts were kept confidential and a specific code was used instead of the participants' names. Participants were ensured about the confidentiality of their conversations. The researcher provided an opportunity for participants to inform the researcher about withdrawal of their participation at any of the research stages by giving the phone number and e-mail of the lead investigator. Participants were ensured that if they requested, their results would be presented to them in a group.

Results

The results include key terms that were categorized into different levels. From the analysis, 428 initial codes were extracted. The codes were then categorized into six categories and three themes based on similarity and analogy. The main themes of the curriculum include: effective clinical education, geriatrics curriculum challenges and promotion strategies for elderly medicine ([Table 1](#)).

Table 1. Categories and themes of the geriatrics curriculum evaluation.

Themes	Categories
Effective clinical education	Effective curriculum
	Competent training staff
Geriatrics curriculum challenges	Curriculum challenges
	Environmental and educational facilities
Strategies for promotion of geriatrics curriculum	Developing guidelines
	Revision in structure of context

Having a curriculum and the authority's supervision on its implementation is the first stage of effective education. Meanwhile, flexible planning in performance, concept-oriented evaluation, continuous emphasis by professors, student preparation after entering the department, appropriate relations between the student and professor, content coverage of elderly headings, support and supervision at higher levels for the description of effective teaching have been used.

"Training at the patient's bedside for all cases such as medical care for the elderly requires planning. However, the quality of the program and whether the professor is acquainted with the issue is very important. Having an elderly program reminds me, the professor, to have more emphasis on the round or training." (Contributor #3)

The research findings indicate that all contributors of the study somehow experienced model training and a range of appropriate models for training. The professional behavior of the professor are among contributors' experiences in this realm. A student contributor stated:

"When I see professor behavior, and how respective he/she is towards the elderly, always calling them mother, father.... we have a duty to fulfill for you, in fact, I as a student am reminded that I should have the same attitude towards the elderly in the future" (Contributor #11)

In expressing the participants' experience, effective clinical education is one of the most important and extensive issues that emerged. Most of the participants had experienced one or more points of geriatrics curriculum practically and emphasized the importance of paying attention to the geriatric population. This theme was composed of two subthemes: effective curriculum and competent training staff.

- *Effective curriculum*: flexible practical curriculum, problem-center evaluation, repeated emphasis on professors, preparation of students at the time of department admission, appropriate ratio of professors to students, coverage of the topics, support and supervision at high levels
- *Competent teaching staff*: high potential of professors in education, appropriate patterns for education, professional behavior of professors.

According to the contributors' experiences, a structured program and accurate explanations of students' duties are effective in education at all levels. Problems arise due to lack of related authorities' awareness regarding new programs and their goals. Based on the experience of contributors, programs remain neglected because they are not evaluated and adequately presented and some people's standpoint in this regard is due to their lack of information about the philosophy and goals of the program. One of the administrators states in this regard:

"I was not aware of the medical care for elderly program and this was because there was no opportunity to think about the curriculum of the general medicine course. It is not right to have all types of expectations from the professor and expect everything to go well..." (contributor #1)

Lack of facilities and problems of the building in training hospitals are among common problems stated by all contributors of this study. Problems of the building and management structure of the training hospital along with problems of numerous students in addition to lack of educational facilities, such as hospital capacity, hinders the administration of educational programs. Thus, this program is carried out such that students come to the patient's bedside in big groups, and this not only improves services and elderly's satisfaction, but also is effective in the student's educational quality. Regarding the facilities, one of the professors stated:

"... the hospital is very non-standard, I myself slipped a few times on the stairs and fell down, now if this happens for an elderly what will come upon them? What will remain of them... first you should think of doing something about this devastating hospital..." (Contributing professor #15)

or another professor on a similar note:

"... the atmosphere and environment should be prepared for training, if the attitude of everyone with the elderly is degrading, what the professor says alone is not sufficient in order for the students' perception to change in regard to the elderly patients...." (Contributor #5)

Challenges of the geriatrics curriculum were also composed of two subthemes: curriculum challenges and management and facility challenges. Each of these subthemes consisted of subcategories (Table 2).

Developing a guideline will facilitate a number of educational problems. However, developing a guideline included a range of requests, from developing a guide for taking care of the elderly to physicians and also insurance.

"Insurances need guidelines themselves, all of our rehabilitation and healthcare demands will be facing problems. Thus, the only solution to carrying out guidelines accurately is to have more powerful insurances" (Contributing professor #2)

Educating society, families and the elderly are among facilitating programs in carrying out medical training for the elderly and modifying the structure of elderly healthcare.

"You must educate them regarding how to react to our problems. It's not only related to medicine. All individuals should become aware of laws and science in order to have appropriate behavior and adequately care for the elderly" (Contributor #9)

In regards to modifying the structure, contributors suggested issues such as modifying processes of providing healthcare services, determining service priorities given to the elderly, enhancing nursing services, elderly welfare facilities, designing software to help the elderly, adequate facilities in clinics and setting up screening for the elderly. In this regard, one of the contributors stated that:

Table 2. Categories and subcategories of geriatrics curriculum challenges.

Theme	Categories	Codes
Geriatric curriculum challenges	Curriculum challenges	Ambiguity in student assignments in the department; contradiction in participant's statements about the curriculum; lack of attention to the elderly in final evaluation checklist; inadequate student and staff communication skills; confronting work conflicts; special circumstances of older patient; lack of specialty in geriatrics
	Management and facility challenges	Management of human communication; non-professional behaviors of staff; insecure and non-standard care environment; decayed building of hospitals; poor facilities of departments, lack of examination room and classroom in clinical departments, resources and facilities; lack of hospital beds; lack of insurance support; socioeconomic problems; ineffective referral system; higher costs of older patients; high number of decision-making centers; incompatibility of authority and responsibility in teaching hospitals; lack of transparency of the role and duties of teaching managers; working with experienced human resources; loss of clarity of rules and organizational process; loss of clarity of hospital evaluation indicators

“Society should be prepared to deal with problems, we are not ready, what services exist to provide healthcare to the elderly? If the nurses are not trained about this technology, how can they provide adequate services in today’s world?” (Contributor #12)

Another of the contributors says in this regard:

“In the coming years we will be facing an outburst of elderly people; we have insufficient hospitals and healthcare centers to respond to these future needs. If so, how are we to take care of the elderly who cannot benefit from family care? Care should be given in a place where their dignity is maintained.” (Contributor #6)

Consequently, the participants consider the challenges of geriatrics able to be reformed and provided some approaches to remedy this situation. According to the results of this study, these approaches are divided into two categories: facilitating geriatrics curriculum and structural modification (Table 3).

Discussion

In recent decades, with the growth in the elderly population, those aged 65 and older, constituting a larger portion of the population, geriatrics fellowship programs have been developed and physicians are trained so that they can provide specialized care for the elderly. The medical education system requires accredited geriatrics programs to evaluate the efficacy of the trainings provided²⁰.

This study evaluated the geriatrics curriculum implemented at the Shiraz University of Medical Sciences qualitatively using content analysis.

The themes that emerged from participants’ input in this study included “effective clinical teaching”, “challenges of geriatrics curriculum” and the approaches for improving geriatrics, which explained implementation of geriatrics in general medicine, such as strength points (opportunities, challenges) and practical

approaches and improving geriatrics at university levels. Almost all participants in the study expressed and experienced one or more indicators of clinical teaching. This means that at present, geriatrics instruction at Shiraz University of Medical Sciences is implementing the above-mentioned points. In this regard, there are several studies that improved geriatrics curriculum by emphasizing the mentioned items^{21,22}.

Sapiano *et al.* (2007) showed that the vertical integration program can improve knowledge and attitudes of medical students towards geriatrics²³. Also Denson *et al.* (2016) used a group teaching method for 15 courses of residency and fellowship and caused more effective teaching²⁴. According to the experiences of participants in the present study, the role of teaching staff and professors’ competency are also critical in implementing geriatrics teachings in Shiraz University of Medical Sciences. Clinical professors are one of the three sides of the clinical teaching triangle and their input is essential in clinical teaching. Various studies have emphasized the importance of using the professors as role models in clinical teaching, especially in geriatrics^{25,26}. Despite the fact that the importance of physician-patient communication and attention to teaching it is known for everybody, in the present study most of the participants mentioned some weaknesses in the communication skills.

The study of Bazrafkan *et al.* is compatible with these results and shows that the main reason of complaint from physicians is lack of communication skills and showed the effect of teaching communication skills on patient’s satisfaction²⁷.

The quality of the educational environment, unsafe and non-standard care environment, weakness of welfare in departments, lack of examination room and classroom in clinical departments, facing complications of work, special conditions of older patient, unprofessional behaviors of hospital staff, lack of resources and facilities and management of human relations were among the issues that were mentioned as the challenges of geriatrics curriculum and causing dissatisfaction of students,

Table 3. Categories and subcategories of improving the geriatrics curriculum.

Theme	Category	Code
Approaches for improving geriatrics curriculum	Facilitating programs for implementing geriatrics	Directing thesis to geriatrics; encouraging active students in this field (with credit); developing a guideline for home care or nursing homes for elderly patients; developing a guideline for insurance; teaching inter-professional communication skills; lifestyle modification; general teaching; developing a guideline for geriatric-friendly hospital
	Revision in structure of context	Reforming health care processes; prioritizing services for the elderly; reforming nursing services, welfare facilities and remote services to elderly patients at home; programming software to aid elderly patients; adequate clinical facilities; setting up screening facilities for elderly patients

professors and elderly patients. In this regard Baker *et al.* used patient communication to evaluate teaching hospital care in Ankara, Turkey. The results showed that none of the hospitals evaluated could satisfy patients' expectations²⁸.

Inter-sectional collaboration in different health sections can provide a basis for proper care of elderly patients. Therefore an inter-professional curriculum can increase this interaction and increase student's interest in geriatrics. However, participating students in the present study didn't separate geriatrics from general medicine. Unfortunately, in some cases they consider addressing this issue a waste of time and explained that elderly patients have stereotypical problems and no specific teaching point exists in geriatrics. These findings are similar to those found by Maybom *et al.* (2015). In their study, about the effect of hidden curriculum in elderly care, the authors came to the conclusion that the students don't consider geriatrics and its problems as a challenging and instructive issue; they consider elderly behaviors stereotypical and unbearable²⁹. Therefore, the clarity of curriculum and attention to its aspects and components, such as the goals and methods of students' evaluation, affects the outcome of instruction; accordingly, if the students are not provided with the compiled curriculum and they are not informed about the expectations, they are unlikely to reach the teaching goals. Furthermore, student-centered and problem-centered strategies are successful in medical education. Based on the current findings and other studies confirm this result that problem-centered education can satisfy the student and cause motivation and reinforcement of their perspectives^{30,31}.

Understanding elderly patient's problems and considering these clinical problems in different discipline curricula will lead students to gain enough competence in order to care for the elderly in the future. The present study shows that the medical students don't have enough competency in geriatrics. Most of the participants' responses related to the second theme that is challenges of implementing geriatrics, which are specialist and fellowship views that can't meet the needs of all elderly patients. In addition, the findings confirm that the geriatrics curriculum is required in order to integrate elderly

care services. This finding confirms other studies that emphasize inter-professional and integrated care³².

The third theme of this study was to find improvement strategies for the geriatrics curriculum. For example, planning and revision of existing curriculum and reforming the proposed structure. Along with the results of this study, the study of Tian *et al* shows the importance of considering prospects and planning in order to provide elderly welfare and reduce future problems of this community³³.

Despite different cultures, most of the obtained data from present study overlaps with other studies in this context; other studies referred to the evolution of education to adapt with the needs of elderly patients to realities of telemedicine, telenursing and online teaching^{33,34}. Therefore, this shows that the view of health care providers of elderly patients expressed their readiness for reform in geriatrics teaching despite existing problems. In the study of Castel *et al* the importance of awareness and teaching was highlighted for elderly patients. The findings of that study reveal that families' responsibility for providing elderly patients with health care is a well-established concept in the health care system and it is essential that the authorities have a plan for this service and help families³⁵.

Conclusion

This study evaluated the geriatric curriculum that was implemented at Shiraz University of Medical Sciences in 2016. According to the findings of this study, the geriatrics curriculum has been successful practically, which was expressed by the experiences of the participants. The challenges of this curriculum that emerged were planning and management of resources, which resulted in incompetent teaching and consequently incompetent graduates. Proposing reform strategies can improve teaching in this field and improve students' competency for general health of elderly patients. Considering common diseases of old age and taking them into account in the curriculum as integrated and comprehensive health care and ease of access to services is necessary for treatment of elderly patients. Using professors, students and elderly patients' experiences

in curriculum reform are of particular importance and can provide comprehensive information to providers and decision makers of health care systems for future planning.

Ethical statement

This study was approved by the Ethics committee of Shiraz University of Medical Sciences (approval number, IR.sums.med.rec.1396.s316). Informed written consent to participate was obtained from all participants. The participants took part in the study voluntarily and their information remained confidential.

Data availability

Transcripts of the focus group discussions (in Persian) are available on request from the corresponding author (bazrafcan@gmail.com).

Supplementary material

Supplementary File 1: Focus group protocol.

[Click here to access the data](#)

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Syed Jaffar Abbas Zaidi

Dow International Dental College, Dow University of Health Sciences (DUHS), Karachi, Pakistan

- This article has discussed the evaluation and feedback of geriatrics curriculum at Shiraz University of Medical Sciences. This article is based on thesis work and has been translated from Persian.
- The authors have not cited a landmark article by on the evaluation of geriatrics curriculum at 40 US Medical schools and its citation has been added for reference purposes (Anderson *et al.*, 2004¹). Furthermore, regional articles relating to qualitative evaluation of geriatric curriculum have not been referenced.
- The article suffers from verbosity, unnecessary repetition of words and inherent problems associated with literal translation. It needs to be edited preferably by a native English speaker so that its writing is more coherent and cohesive. There are many grammar mistakes in this article and I suggest the authors to use software to check grammar such as Grammarly to review this article. Please see my annotated copy of the article [here](#), where I have highlighted and commented on some of the sentences of the article that I have paraphrased.
- The authors have not discussed how they have categorized the data into themes. Whether they have software such as NVivo or have they done it manually?
- The authors have not mentioned the five steps of analysis of themes that include familiarization, identification of a thematic framework, indexing, charting, followed by mapping and interpretation.
- The authors have not suggested how curricular reforms can address the lack of integration of geriatric curriculum into the current general medicine curriculum. No details of field observations and their findings have been included in this article.
- One of the key features of curricular evaluation is social responsibility and social

accountability and the authors have not mentioned these terminologies anywhere in this article.

- The words “problems of the building & hospital capacity” are not appropriate and should be replaced by “infrastructure problems”.
- The words “Intersection collaboration in different health sections” should be replaced with “Interprofessional education & collaboration”.

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Is the work clearly and accurately presented and does it cite the current literature?

Partly

Is the study design appropriate and is the work technically sound?

Yes

Are sufficient details of methods and analysis provided to allow replication by others?

Yes

If applicable, is the statistical analysis and its interpretation appropriate?

Yes

Are all the source data underlying the results available to ensure full reproducibility?

Yes

Are the conclusions drawn adequately supported by the results?

Yes

Competing Interests: No competing interests were disclosed.

Reviewer Expertise: Qualitative research. Basic sciences research. Clinical sciences research

I confirm that I have read this submission and believe that I have an appropriate level of expertise to confirm that it is of an acceptable scientific standard, however I have significant reservations, as outlined above.

Author Response 27 Aug 2019

somayeh delavari, Iran University of Medical Sciences, Tehran, Iran

Response to comment 1: Thank you for your comment. In this article, we needed to consult a bilingual native speaker to help us in using the real concepts in the manuscript. Certainly, we consulted a native speaker in Iran, Prof. Nasrin Shokrpour, the

chief editor and consultant of English articles in Shiraz University of Medical University and finally check grammar such as Grammarly.

Response to comment 2: Data analysis was done manually.

Response to comment 3: Using your valuable comment, we revised the methodological issues and the data analysis sections. Conventional content analysis was used to analyze the data collected.

Response to comment 4: Your suggestion was completely right and done and add table 2.

Response to comment 5: The social responsibility and social accountability were added to the article, based on your valuable comment.

Response to comment 6: Your suggestion was completely right and done.

Response to comment 7: Your suggestion was completely right.

Thank you for your attention to this manuscript and valuable comments. We hope the new version meets your expectations.

Competing Interests: The authors declare that they have no competing interests.

Author Response 05 Sep 2019

somayeh delavari, Iran University of Medical Sciences, Tehran, Iran

- In this new version of the manuscript (Version 2), we needed to consult a bilingual native speaker to help us in using the real concepts in the manuscript. Certainly, we consulted a native speaker in Iran, Prof. Nasrin Shokrpour, the chief editor and consultant of English articles in Shiraz University of Medical University and finally check grammar such as Grammarly.
- In addition, data analysis was done manually and we revised the methodological issues and the data analysis sections. Conventional content analysis was used to analyze the data collected.
- In addition, details of field observations and their findings have been included in this article and add new table (table 2).
- In addition to that, the social responsibility and social accountability were added to the article, based on your valuable comment.
- In addition, the words “problems of the building & hospital capacity” and “Intersection collaboration in different health sections” are to be replaced by “infrastructure problems” and “Interprofessional education & collaboration” respectively.

Competing Interests: The authors declare that they have no competing interests.

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