Ann Ig 2020; 32(6): 615-626 doi:10.7416/ai.2020.2383

Health Education Programs Challenges in Rural Communities: Experiences of Health Educators and Healthcare Authorities

Y. Hamidzadeh[1], A. Kamran[2], A.A. Shekarchi[3], H. Rezakhani Moghaddam[4]

Key words: Barriers, health education, rural communities, qualitative research, managers
Parole chiave: Barriere, educazione sanitaria, comunità rurali, ricerca qualitativa, manager

Abstract

Background. *Health education is one of the main areas of primary health care and it is improbable that health promotion will succeed without it. However, studies show that there are some problems when implementing health education programs in rural communities. This study was carried out to illuminate the barriers to health education using Ardabil's health center manager's and health educators' experiences.*
Methods. *This was a qualitative study using the content analysis approach. Twenty-seven health educators and managers were selected to participate in the study considering the maximum variation. Purposive sampling technique was used to select study participants. Data were collected through semi-structured interviews and focus group discussions. Data analysis was done using a six-stage thematic analysis framework.*
Results. *During the data analysis, four themes were apparent as barriers to health education in rural communities included: inefficient management skills, lack of responsibility among health personnel, inadequate policies, and poor inter-sectoral cooperation.*
Conclusions. *It seems that changing job descriptions of health workers, reviewing health priorities, increasing lobbying activities are mechanisms that can help overcome barriers to health education in the rural communities.*

Introduction

Health and security are among the basic rights of all humans, and every organized society is responsible for equally providing these rights for all citizens (1). Every society establishes a healthcare system which is influenced by factors such as political, social, cultural, economic and managerial conditions, in order to provide and promote people's health (2). The managers of the healthcare system can affect the quality of the health services delivered. An experienced management can contribute to a high-quality services delivery by appropriate programming, allocating the required sources, supervising the service delivery continuously, and empowering the healthcare workers (HCWs). Moreover, every person has the right to obtain health-related informations, and it is the responsibility of the HCWs to acquaint people with them (3).

[1] *Department of Public Health, Ardabil University of Medical Sciences, Ardabil, Iran*
[2] *Social Determinants of Health Research Center, Ardabil University of Medical Sciences, Ardabil, Iran*
[3] *Department of Pathology and Anatomy, Ardabil University of Medical Sciences, Ardabil, Iran*
[4] *Department of Public Health, Khalkhal University of Medical Sciences, Khalkhal, Iran*

Educating people and increasing their knowledge have a great importance, and are considered among the main elements of empowerment and sustainable development (4). Moreover, the results of some studies indicate that educating people about health contributes to the gain of further skills (5). In front of the need of information accessibility, and health-literacy promotion for all people, unfortunately informations are not available everywhere or every time or at any situation when the societal groups need them (6). It will be helpful if the healthcare system managers recognize that need and provide the necessary health-related informations, removing the obstacles, and laying the foundations for promoting a true health literacy. Recognizing the needs of people and removing the obstacles need ad hoc programs, to be applied with a due balance. The lack of programming will be really challenging for the population, economically, socially, and hygienically as well (5, 7).

The attitude and knowledge of the society members are associated with the progress in seeking health knowledge, in providing, preserving and promoting the health, in preventing diseases, and, finally, in decreasing the rates of infectious disease and mortality. Health education in rural communities of developing Countries is a major practice through which the greatest health threats, such as the avoidable mortality of children and mothers, AIDS, tuberculosis, and malaria can be discussed (8). In many rural regions, community HCWs (C-HCWs) are considered the pivots for spreading the health education messages (9). However, according to the findings of other studies there are some barriers that hinder the spread of information to villagers and prevent their health literacy from growing (10).

People's and groups' understanding of the ''health education obstacles'' varies according to their lifestyles, culture, societal position, and personal characteristics. In this respect, the important thing is the amount of cooperation, mutual understanding and intimacy among people, especially among the workers of an organization (11, 12). By decreasing or removing the barriers to health education, from the viewpoint of managers, we can contribute to increase the achievements in the rural healthcare centers and houses and to increase the villagers' health literacy (13).

The managers' apprehension of the health education obstacles is important because, in many cases, the managers play the major role in the supporting plan, providing the requirements for health education and improving knowledge. The present study was carried out to investigate the barriers to the health education in the rural communities using health center managers' experiences.

Materials and Methods

A qualitative study using content analysis approach was employed to identify the challenges of health education programs in the Iranian rural communities.

Setting and samples

The study was performed in the health centers in Ardabil, Iran, during 2018. Participants were chosen from health educators and health services managers looking for the maximum variety such as age, gender, marital status, education. In total, 27 individuals participated in the study. According to the educational path in the Country, individuals intending to work in health-related fields must get education for at least four years as a healthcare student after completing a diploma.

Participants were selected if they had more than three year of work experience, had 25 years of age and older, had management experience for more than one year. More details about the participants are presented in Table 1.

Table 1 - Demographic-social characteristics of participants

Variable		Number (%)
Age	< 30	3 (11%)
Mean= 40.23	30 - 40	11 (41%)
	41 - 50	11 (41%)
	> 50	2 (7%)
Sex	female	11 (42%)
	male	16 (58%)
Education	bachelor	11 (41%)
	master	11 (41%)
	doctor	5 (18%)
Job history	< 10	7 (26%)
	10-20	14 (51%)
	>20	6 (23%)
Management history	< 5	Zs
	5-10	7 (54%)
	>10	3(23%)

Procedure

The principle of saturation was used for data gathering in this study. Data saturation was reached where no new themes or relevant information emerged (14).

Data were collected through semi-structured individual interviews and focus group discussions, according to the protocol of Krueger & Casey (15). In semi-structured interviews, the experiences of 8 managers and 9 health educators were obtained; also, ten informants (including 5 health educators and 5 managers) participated in the four focused group discussions. Before conducting interviews, a pilot interview was conducted and the interview questions were adjusted accordingly before beginning the main study (15, 16). An open-ended question was used to begin each interview: "How would you describe health education programs in a rural health center?" The next questions were asked based on the participants' responses. The place and time of the interviews were set according to participants' preferences. The duration of each interview was approximately 20-50 minutes, individual interviews and focus group discussions were held at the health centers.

Data analysis

Data collection and analysis were done concurrently, exploring barriers to health education in the rural communities. Data analysis was done using a six-stage thematic analysis framework (17).

To analyze the data, all the interviews were transcribed and reviewed in order to obtain a general meaning view. The analysis was started by identifying the units of meaning that were extracted from the statements. The meaning units from the speeches of the participants were extracted from the interviews in the form of open codes. The codes were reread several times and were divided into homogeneous categories according to similarities. Then, the classification was done by presenting separate codes, repeated reviews and combining similar codes. In this way, coding of the second level was formed. In the next stage, the levels were compared each other and the similar categories were combined and the themes appeared. The previous classifications may be reviewed; combined or new classifications may be created with any new interview. MAXQDA v.10 software was used to manage the textual data.

Data trustworthiness

Strategies to ensure the trustworthiness of the findings were derived from methods illustrated by authors such as Guba & Lincoln (18). Credibility was conducted through prolonged engagement with the respondents as well as conducting revisions by the interviews to verify the preliminary findings from the earlier interviews (member check). In addition, the confirmation ability and credibility of the data was enhanced with maximum variation approach.

Ethical considerations

This study was approved by the Ethical Review Committee of the Tabriz University of Medical Sciences (IR.TBZMED.REC. 1395.285). Informed consent form was obtained from all the participants before the interviews.

Results

Four themes appeared as the main challenges for the implementetion of the health education programs, including "inefficient management skills", "lack of responsibility among healthcare personnel", "inadequate policies", and "poor inter-sectoral cooperation".

First Theme: Inefficient management skills

Inadequate exploitation of human resources

Unfortunately, managers of the healthcare system do not care about the welfare and convenience of their workers as much as they do about the welfare of the society. (Table 2, p1).

Every organization has a unit called ''attracting, organizing and staff department'', which is responsible for the human workforces input. The manager does all the work of the system by himself and does not manage to supervise the subsystem, and this is due to some reasons (Table 2 p3).

Knowing about the lack of evaluation, some HCWs tend to shirk their duties. Further, there is also partiality in the enforcement of the workers' evaluation system and, consequently, the system is not efficient enough (Table 2, p5a and p5b).

Excess of bureaucracy in the city's health center

According to some participants, the routine workload (such as filling forms) is so huge that health education has been forgotten. Some forms and registrations are of national origin, whereas some others come from the province and some are designed locally, in the Ardabil health centers. However, the workloads are supposed to be alleviated by the creation of ''SIB'' system. Participants have stated this problem frequently: (Table 2, p3, 7, 9, 15).

In the opinion of managers of all units, a barrier is represented by insufficient human resources. Providing enough human resources is a critical measure to put the plan into operation (Table 2, p14 and 16a).

Allocating inadequate financial supply was a barrier to effective work performance for all units, but, in particular, for the health education unit. According to some staff managers, the toughest difficulty in health education is the financial shortage. By the continuation of these conditions, there will arise problems in providing the bonus, encouraging successful workers and active clients, preparing the audio-visual equipments for village health centers and providing standard contents (Table 2, p16b).

Second theme: lack of responsibility among health personnel

The workers incapability in executing effective training, in using modern teaching methods, and in using audio-visual equipment properly, caused some challenges. Given that, some objections were about the manners and the expertise; perhaps, the poor capability of HCWs is a reason for village people's lack of presence in health education classes.

Inadequate skills and motivation among HCWs

There are problems in the way of improving the literacy level of society in terms of quality and quantity. The health literacy level will not rise unless the basic literacy level of people increases; the same matter stated by all managers (Table 3, p13, 14).

Table 2 - First Theme: Inefficient management skills

p	***First Theme: Inefficient management skills***
	Inadequate exploitation of human resources
1	"now the condition is that all managers only think of themselves and don't support the subservient".
3	''The health center workers speak on their cell phones or get together in a room and have a chit-chat, then the clients get helpless. Sometimes they bring up excuses for the clients coming not on time. Nevertheless if there are strong management and enough supervision, these problems probably will not occur that much".
5a	''the health worker who has plenty of job prudency doesn't want to work and insists on it and says he was hired by the system when he was a fifth-grader; that is why he wouldn't keep on working. What can you do for me?"
5b	''It works when the manager cuts or decreases the overtime or salary or the yearly bonus of the worker who does not work properly or does not obey the manager; however, the manager does not cut the payments''.
	Excessive bureaucracy in the city's health center
3, 7, 9, 15	''The bureaucracy is so much and they frequently request repetitions of the statistics putting a serious barrier which takes time from health education. For example, when we give adults vitamin D, we must register it in several offices: healthcare office, medicine office, vitamin D office, etc! So the health worker wastes time and energy, and decrease his attention to the true work. Plus, the experts of different units and offices of the ministry send different special forms of their own''.
14	''It can be helpful to provide and apply the national standard and regional standard regarding the ratio of human sources to the needs and health cares"
16a	'' You see, on one hand the workload increases every day, on the other hand the retired and transferred workers have not been replaced. Moreover, we face a new difficulty every day; for example, we have the new problem of pedicostitis in schools''.
16b	''When there is a financial problem, the activity and cooperation diminishes; unluckily, everything depends on money''. '' If we have enough money, we can buy according to the demands, but usually our budget does not suffice. We can't even buy sportswear for the students participating in university competitions."

Thec majority of participating managers and health educators expressed the low motivation of HCWs - especially among the health education workers. They believed that the reasons for low motivation were the increase in workload, the time shortage, and the specialized tasks of HCWs, the discrimination in payments, the inadequate educations and the lack of their eagerness. Moreover, people's knowledge and expectations have increased (Table 3, p9).

Along with low education and motivation of HCWs, unfortunately the negative attitude towards them has initiated their distrust and disillusionment. People and managers are dissatisfied with HCWs because of the lack of their presence at the workplace. Some managers consider the low literacy of HCWs as the main cause of the negative attitude towards them (Table 3, p11).

Problems in attracting, educating and distributing medical students

According to some participants, Iran's medical students are not trained to be socially-oriented. Additionally, in the teaching offered to medical students, the main core is *treatment*, therefore physicians feel that their only task is treating the patients. Besides, the acquired knowledge by students in the college is not consistent with the reality of the society (Table 3, p1 and 5).

Some interviewees said that family physicians' tasks and responsibilities are

tooo many. Also, physicians do not have enough time or incentive for executing health education programs. They believed physicians have negative attitude towards educating, but actually physicians do not teach because of time scarcity and high number of patients, which leads to physicians' arriving late and patients' hurrying (Table 3, p14, 8, and 10).

Ineffective health education in health system

The authorities of the health education unit must have surrounded over the methods of health education. The weakness of the health education unit has been frequently expressed in the interviews with health centers managers and educators (Table 3, p7 and 8).

Some participants spoke about the importance and role of health center's managers in holding the training courses (Table 3, p4 and 7).

The lack of these requirements in the health education unit was one common factor that all participating groups stated (Table 3, p8, 4, 11, 9).

Third theme: Inadequate policies

Inappropriate policies of the ministry in the past and present were described by some participants (Table 4, p2).

The informants stated various points about the status of health education in healthcare networks, in the team of family physician and in the operational plans (Table 4, p7,4 and 9).

Forth theme: Poor inter- sectoral cooperation

The inter-sectoral cooperation is neggatively influenced by the HCWs. Participants believed some managers and HCWs are not able to attract the cooperation from other village structures (Table 5, p3 and 12).

There is good intra-sectional cooperation, while there is failure of inter-sectoral cooperation. Participants said performances and plans prove that sometimes the colleagues in the health center do not focus about inter-sectoral cooperation. Many files are sent to the health center by HCWs and village Behvarzs, but health center managers do not take care of them (Table 5, p15).

The managers and educators stated that the reason for the lack of working with the media is the financial problem. They suggested that the health education experts must try more to coordinate for reviewing TV programs (Table 5, p7).

Discussion

The aim of this study was to detect the barriers to executing the health education from the viewpoint of Ardabil's health center managers and educators. Nowadays, technologies are not considered as organizational advantages, while talented and efficient staff can compensate for the lack of other resources. In the present competitive situation, the successful organizations are only those that appreciate the strategic role of their human resources and have skillful, science-based, elite and capable human resources (19). A manager, as the official representative of the organization for making coordination and increasing productivity, is at the top of the organization and leads the direction practice of the human resources (20). If managers have enough skills, undoubtedly the organization will have more effectiveness, efficiency and validity (21, 22).

Based on the findings of this study, the lack of management commitment was a major barrier to the health education in villages. Whereas, organizational management has a major role in organization comprehension and employees' behaviors (20, 23). According to the opinion of management specialists, in order to increase an organization's productivity, we need to fulfill various

Table 3 - Second theme: lack of responsibility among health personnel

p	***Second theme: lack of responsibility among health personnel***
	Inadequate skills and motivation health workers
13	"the primary obstacle is the low level of health worker educations; due to their insufficient educations they cannot make use of the offered content particularly this is true because many services have become specialized."
14	"One of our significant problems is the literacy level of health worker; that is why the health worker protest the compressiveness of courses and the use of technical terminology in educational games and classes
9	"The motivation of health worker is inadequate; if you give health worker and the pertinent trainees' salary and overtime payment, they will gain encouragement and motivation for doing training, healthcare, and all activities''
11	"I dare to say that now 90 percent of health worker either reside in or commute to Ardabil; thus, they are less present in the health house''.
	Problems in attracting, educating and distributing medical students
1	"physician think that all the patients' problems are solved by writing prescriptions; these problems of our country, as I said, originate from the further educations- and even from physician-chiefdom and treatment-chiefdom."
5	"As we are supposed to theoretically teach all the family-hygiene tasks to medical students in just 20 minutes of training and internship classes, they naturally will forget that one of their major tasks is client teaching and guiding ''
14	"The family physicians aren't going to speak or teach yet although some midwives like Ms. … work really well."
8	"There is time scarcity for our family physicians; even if the family physicians want to educate, the people who are standing in line for their turn will not bear it."
10	"Perhaps one reason that physicians have negative attitudes towards teaching is that writing a prescription takes 2 minutes while educating takes 20 minutes; therefore writing a prescription is easier than teaching''
	Ineffective health education in health system
7	"The expert of the health education unit is alone and has loads of work to do."
8	"Ms. y should herself, to a large extent, create the sensitivity but she doesn't. Furthermore, she hasn't got enough expertise. We need more cadre and more work in the health education unit."
4	''Most importantly, the entire cadre including the boss, the assistant, the unit managers, and the health workers should give priority to health education."
7	"The senior incumbents should be sensitive towards health education so that the sensitivity is conveyed to lower units. When the center's manager and the unit's incumbent attend the scheduled courses and plans, the significance of the courses rises- while when the boss doesn't count this significance, it is clear what happens''.
8	''They don't allocate finance and human resource supply and this is our only problem ''.
4	"we have only one health education expert for 630 people of Ardabil regardless of this question that weather she is specialized in health education or not and whether she is competent enough or not. How is she going to manage to supervise around140 dependent units all by himself? Then the structure of the organizational post of the health education of the city and province is not suitable''.
11	"Just as the environment sanitation unit, fight against ailments, and family unit have several experts, the health education unit should recruit several people specialized in training and take advantage of those experts solely for teaching people the social health subjects."
9	"The fact of the matter is that there are very few educational products on various health subjects. Yet, we are no faulty, because we have shortage of the equipment required for putting on films."

Table 4 - Third theme: Inadequate policies

p	***Third theme: Inadequate policies***
2	‘‘The delivered services in our job, used to be free; now some of those services were given a price and this has caused problems. These problems are linked to the inappropriate policies of the ministry. When the instruction is ministerial, we have not much freedom of manoeuver because the ministry intensively insists on doing it. We used to have more than 30 items of free medication in the health house; now those drugs are either not available or not free.’’
7	‘‘We have no clear policy for health education, the ministry does not offer an effective, operational plan; thus, the first unit of the health ministry to be very fortified is the health education unit.’’
4	‘‘In my opinion, there are fundamental problems- the problems in health education in linked to the health ministry and the place of the health education unit. In comparison to other units, we have the lowest place of importance both in construction and in workforce; all experts confirm that the health education unit is the so-called jack of all trades’’
9	‘‘The ministry itself has not evaluated or scored the health education activities of the managers; they don’t care about it’’.
4	‘‘we have only one health education expert for 630 people of Ardabil regardless of this question that weather she is specialized in health education or not and whether she is competent enough or not. How is she going to manage to supervise around140 dependent units all by himself? Then the structure of the organizational post of the health education of the city and province is not suitable’’.
11	‘‘Just as the environment sanitation unit, fight against ailments, and family unit have several experts, the health education unit should recruit several people specialized in training and take advantage of those experts solely for teaching people the social health subjects.’’
9	‘‘The fact of the matter is that there are very few educational products on various health subjects. Yet, we are no faulty, because we have shortage of the equipment required for putting on films.’’

requirements, and human resource are the most important. Only organizations can provide the necessary actions to meet their challenges and face their obstacles (24). Training of HCWs is important, they have logistical, administrative, and community health duties (25). However, workers’ inefficiency in health education was another theme that emerged from the participants’ interviews. According to the study conducted by Armestrang, the more the physician follows the details about the patient disease, the more satisfaction for the patient is seen (26). This indicates that HCWs’ skill has a significant role in the clients’ satisfaction and proves the necessity of education programs for increasing the skills of physicians and workers (27).

In other studies, the low level of HCWs was verified. For example, Maletsabisa’s results prove that the HCWs have a low level of literacy (7). Additionally, the findings of Alidousti et al indicated that the amount of training provided by family physicians was very low (3), while family physicians are the most suitable people for solving their health issues. Family physicians are not explained and do not have enough information about their responsibilities (28). Thus, we should seek other possible strategies which can engage them. Currently, in Vietnam most of the HCWs work in regions where 80 percent of its population live in the rural environment (29). In order to deliver optimal health services, it is essential that strategies be designed to influence the HCWs’ motivations (26).

The theme of inefficient policies was related to the Ministry of Health and to the low level of Medical Education performance. Factors that reduce rural people’s participation in the health education programs include changing in the roles and tasks of health centers, in limiting the

Table 5 - Forth theme: Poor inter-sectoral cooperation

p	***Forth theme: Poor inter-sectoral cooperation***
3	''Mostly there is not cooperation in practice, although there is the cooperation in words. They, only symbolically, set the pattern of inter- sectoral cooperation, the literacy level promotion, and people empowerment. For example, the health worker is present for training at school and attends the village council meetings, while he does not make the best use of this potential. Thus, we have some difficulties in inter- sectoral cooperation.''
12	''Different organizations must cooperate with each other, but they have poor cooperation. Additionally, we must, in practice, fortify the inter- sectoral cooperation. There are other choices except from fining or introducing to the court. By these things, the efficacy of the health system will be reduced.''
15	"Sometimes, the health worker may fail to introduce and report the violations to the health center. If the violators of the public places are not prosecuted, the number of violators will increase and the health worker will not be able to prevent their violations. Contrarily, if the violation cases sent to the health center are prosecuted, the health worker will confidently take care of the violations."
7	''There are no good programs on TV about health. Yet, whenever the government is dominant, the broadcasters become more active. For example, regarding the increase in reproductions, there is determination in high-ranked people; when there is this determination, different groups, organizations and offices feel bound to cooperate and get involved."

treatment roles of HCWs, in changes in population policies, etc.

One issue which was stated by the participants, was the poor health education of physicians, which is confirmed by other studies (30, 31). Consistent with the findings of studies by Javadi et al (32), during the study course of medicine in basic sciences, physiopathology, training and internship, there is excessive emphasis on treating the hospitalized patients. Furthermore, there are weaknesses in medical ethics, in communication skills, in managing medical offices, and in looking after non-contagious patients. Researchers suggest that courses associated with medical ethics, the way of treating with patients, healthcare centers management, taking care of non-contagious patients must be incorporated into the medical curriculum (33). This is consistent with Roreck's opinion, who writes: '' the medical students spend almost all the curriculum of their studies in big cities, while they acquire the least familiarity with rural regions' healthcare problems'' (34, 35). Also, in Iran's educational system, there are not enough physicians and HCWs available for work in the villages (36). On the contrary, there is evidence that 25 percent of Australia's medical students spend at least one year of clinical training in rural regions (7).

Poor inter-sectoral cooperation was mentioned as one of the challenges of health education in the rural communities. Apparently, it is results from physicians' high workload and treatment-oriented attitude and as well as the absence of legal instruments to oblige them to work with all healthcare organizations, both urban and rural.

Conclusion

In this study the barriers to health education were presented from the viewpoint of the educators and managers of health centers. With regard to the importance and status of health education in health promotion and disease prevention, apparently it is essential that the health system managers should better recognize the magnitude and categories of the barriers to health

education in rural communities. So that they can plan more proper programs and can realize effective interventions to remove the detected barriers and to increase the health-literacy of villagers. It seems that changing job descriptions of HCWs and health educators, reviewing health priorities, increasing lobbying activities are strategies that can help overcome barriers to health education programs in the rural communities.

Limitations: The limitations of this study were the shortage of time and opportunity for interviews and answering the phone calls. These limitations were removed by giving time for answering and giving permission for interpreting the interviews. Because of the small number of participants in this study, the results cannot be generalized. Also, the study did not cover all rural communities around the country. Therefore, generalizing the findings to other rural situations may only be done partially and very cautiously.

Conflict of Interest: The authors stated no conflicts of interest.

Riassunto

Sfide dei programmi di educazione sanitaria nelle comunità rurali: esperienze di educatori sanitari e autorità sanitarie

Introduzione. L'educazione sanitaria è una delle aree principali dell'assistenza sanitaria di base ed è improbabile che la promozione della salute abbia successo senza di essa. Tuttavia, gli studi dimostrano che ci sono alcuni problemi nell'attuazione dei programmi di educazione sanitaria delle comunità rurali. Questo studio è stato condotto per illuminare gli ostacoli all'educazione sanitaria utilizzando le esperienze del manager del centro sanitario di Ardabil e degli educatori della salute.

Metodi. Questo è stato uno studio qualitativo utilizzando l'approccio di analisi del contenuto. Ventisette educatori e dirigenti sanitari sono stati selezionati per partecipare allo studio considerando la massima variazione. Per selezionare i partecipanti allo studio è stata utilizzata la tecnica di campionamento intenzionale. I dati sono stati raccolti attraverso interviste semi-strutturate e discussioni di focus group. L'analisi dei dati è stata effettuata utilizzando un framework di analisi tematica in sei fasi.

Risultati. Durante l'analisi dei dati, sono stati individuati quattro temi come ostacoli all'educazione sanitaria nelle comunità rurali: capacità di gestione inefficienti, mancanza di responsabilità da parte del personale sanitario, politiche inadeguate e scarsa cooperazione intersettoriale.

Conclusioni. Sembra che cambiare la descrizione del lavoro degli operatori sanitari, rivedere le priorità della salute, aumentare le attività di lobbying siano meccanismi che possano aiutare a superare gli ostacoli all'educazione.

References

1. Hosseini Faraji H. Performance evaluation of family physician program in Imam Khomeini's Relief Committee. Yazd province, 2005.
2. Mosadeghrad AM. Factors influencing healthcare service quality. Int J Health Policy Manag 2014; **3**(2): 77-89.
3. Alidoosti M, Tavassoli E, Khadivi R, Sharifirad GR. A survey on knowledge and attitudes of rural population towards the family physician program in Shahr-e-kord city. Health Inf Manag 2011; **7**: 629-36.
4. Shahmoradi L, Changizi V, Mehraeen E, Bashiri A, Jannat B, Hosseini M. The challenges of E-learning system: Higher educational institutions perspective. J Educ Health Promot 2018; **7**: 116.
5. Banks JA. Cultural diversity and education. New York: Routledge, 2015 Dec 22.
6. Riahi A, Hariri N, Nooshinfard F. Study of health Information needs and barriers to access among afghan and iraqi immigrants in Iran. J North Khorasan Univ Med Sci 2015; **7**(3): 597-610.
7. Molapo M, Marsden G. Health education in rural communities with locally produced and locally relevant multimedia content. In: Proceedings of the 3rd ACM Symposium on Computing for Development 2013 Jan 11 (p. 25).
8. Winnail SD, Geiger BF, Macrina DM, Snyder S. Barriers to parent involvement in middle school health education. Am J Health Stud 2000; **16**(4): 193-8.
9. Weinhold I, Gurtner S. Understanding shortages of sufficient health care in rural areas. Health Policy 2014; **118**(2): 201-14.
10. Rahaman M, Islam M. ERP 360: A Robust Enterprise Resource Planning For Educational Institutions. Md. Ashifur Rahaman, Md. Ariful Islam, 2018. Available on: http://dspace.uiu.ac.bd/bitstream/handle/52243/236/ERP_360_

Project_Report.pdf?sequence=1&isAllowed=y [Last accessed: 2019, Nov 8].
11. Jones B, Cox S. Facilitators and hindrances to individual and organisational learning within the nuclear sector. In: International Conference of Organisational Knowledge and Learning Capabilities. Boston, MA. Abstract available on: https://www2. warwick. ac. uk/fac/soc/wbs/conf/olkc/archive/oklc6/papers/jones__cox. pdf 2005 [Last accessed: 2019, Nov 8].
12. Doyle W, Reid JG, Young JD. Barriers to and facilitators of managers' workplace learning in small and large knowledge-based firms. Small Business Institute Research Rev 2008; **35**: 79-93.
13. Rezakhani Moghaddam H, Allahverdipour H, Matlabi H. Barriers to women's participation: experiences of volunteers and community healthcare authorities. Soc Work Public Health 2018; **33**(4): 237-49.
14. Guest G, Bunce A, Johnson L. How Many Interviews Are Enough?: An Experiment with Data Saturation and Variability. Field Methods 2006; **18**(1): 59-82.
15. Krueger RA, Casey MA. Focus groups: A practical guide for applied research. Sage publications, 2014. 280 p.
16. Majid MA, Othman M, Mohamad SF, Lim SA, Yusof A. Piloting for interviews in qualitative research: Operationalization and lessons learnt. Int J Acad Res Bus Social Sci 2017; **7**(4): 1073-80.
17. Braun V, Clarke V. Using thematic analysis in psychology. Qual Res Psychol 2006; **3**(2): 77-101.
18. Schwandt TA, Lincoln YS, Guba EG. Judging interpretations: But is it rigorous? Trustworthiness and authenticity in naturalistic evaluation. New Directions for Evaluation 2007; **2007**(114): 11-25.
19. Shi L, Lebrun-Harris LA, Daly CA, et al. Reducing disparities in access to primary care and patient satisfaction with care: the role of health centers. J Health CarePoor Underserved. 2013; **24**(1): 56-66.
20. Gamm L, Hutchison L, Bellamy G, Dabney BJ. Rural healthy people 2010: Identifying rural health priorities and models for practice. J Rural Health 2002; **18**(1): 9-14.
21. Plsek PE, Wilson T. Complexity, leadership, and management in healthcare organisations. BMJ 2001; **323**(7315): 746-9.
22. Voon ML, Lo MC, Ngui KS, Ayob NB. The influence of leadership styles on employees' job satisfaction in public sector organizations in Malaysia. Int J Bus Manag Social Sci 2011; **2**(1): 24-32.
23. DESA. World population prospects: the 2012 revision. New York: Population Division of the Department of Economic and Social Affairs of the United Nations Secretariat, 2013; 18.
24. Armstrong M, Taylor S. Armstrong's handbook of human resource management practice. Kogan Page Publishers; 2014 Apr 3.
25. O'Brien M, Squires, Rebecca A, Bixby R, Larson S. Role Development of Community Health Workers: An Examination of Selection and Training Processes in the Intervention Literature. Am J Prev Med 2009; **37**: 262-269.
26. Bush T. Educational leadership and management: Theory, policy and practice. S Afr J Educ 2007; **27**(3): 391-406.
27. Harris D, Harris FJ. Evaluating the transfer of technology between application domains: a critical evaluation of the human component in the system. Technol Soc 2004; **26**(4): 551-65.
28. World Health Organization (WHO), Regional Office for the Western Pacific. Human resources for health country profiles: Viet Nam. Manila: WHO, 2016.
29. Hsu YH, Fang W. Intellectual capital and new product development performance: The mediating role of organizational learning capability. Technol Forecast Soc Change 2009; **76**(5): 664-77.
30. Paterick TE, Patel N, Tajik AJ, Chandrasekaran K. Improving health outcomes through patient education and partnerships with patients. Proc Bayl Univ Med Cent 2017; **30**(1): 112.
31. Farahani MA, Mohammadi E, Ahmadi F, Mohammadi N. Factors influencing the patient education: A qualitative research. Iran J Nurs Midwifery Res 2013; **18**(2):133.
32. Javadinia SA, Karimi Gh, Abedini MR. Training and Evaluation in Medicine Effective or Ineffective: Establishing an Educational Culture Based on Community Health Priorities. IJME 2014; **14**(2): 187-188.
33. Moghaddam HR, Allahverdipour H, Matlabi H. Successful recruitment and retention strategies for women health volunteers: viewpoints of the volunteers' supervisors and relevant researchers. J Multidiscip Healthc 2018; **11**(3): 621-34.
34. Rourke J. How can medical schools contribute to

the education, recruitment and retention of rural physicians in their region? Bull World Health Organ 2010; **88**(5): 395-6.
35. Forster L, Assareh H, Watts LD, McLachlan CS. Additional years of Australian rural clinical school undergraduate training is associated with rural practice. BMC Med Educ 2013; **13**(1): 37.
36. Noori T, Ahmadi M, Bahaadinbeigy K, Mehraeen E. Deliveryof telemental health-care services to veterans in selected countries: A comparative study. JMUMS 2015; **25**(126):134-8.

Corresponding author: Hamed Rezakhani Moghaddam, Department of Public Health, Khalkhal University of Medical Sciences, Mozaffar St., Khalkhal, Iran
e-mail address: rezakhanih@gmail.com