Challenges of the National Program of Health Volunteers in Iran

ABSTRACT

Background and Objective: One of the fundamental points of primary health care (PHC) is the principle of social participation, which the program of health volunteers is one of its successful samples. Considering the significant role of health volunteers in promoting social health, the present study was conducted to determine the challenges of the national program of health volunteers in Iran as an example of a lower middle-income country.

Materials and Methods: This qualitative study was carried out among public health authorities healthy volunteers at the national level. For this purpose, 42 interviews were performed in a semi-structured manner with healthy volunteers nationwide. In order to data analysis, MAXQDA 10 software was used.

Results: Based on the results of the content analysis test, 349 primary codes were revealed. By considering the integration and overlapping of the codes, 4 main challenges (Coordination, Participation, Structure, and Motivation), as well as fourteen sub-themes, were obtained.

Conclusion: According to the results of the research, interaction and participation were important principles of development and the participation of other sectors should get along with the participation of the people. Also, the biggest issue in the program of health volunteers can be associated with its credibility.

Paper Type: Research Article

Keywords: health volunteers, health system, social participation, Challenges.

▶ Citation: Vafaee-Najar A, Hooshmand E. Challenges of the National Program of Health Volunteers in Iran. *Journal of Health Literacy*. Winter 2022; 6(4): 47-58.

Ali Vafaee-Najar

Social determinates of Health Research Center, Mashhad University of Medical Sciences, Mashhad, Iran

Department of Health Management and Economics, School of Health, Mashhad University of Medical Sciences

Elaheh Hooshmand

* Social determinates of Health Research Center, Mashhad University of Medical Sciences, Mashhad, Iran. (Corresponding author):

Email.Houshmande@mums.ac.ir

Department of Health Management and Economics, School of Health, Mashhad University of Medical Sciences

Received: 31 August 2021 Accepted: 04 November 2021 Doi: 10.22038/jhl.2021.60058.1192

Introduction

One of the fundamental points of primary health care (PHC) is the principle of social participation (1). Regarding the World Health Organization's strategies for solving health problems through the people, participation in social development is considered as a process that people should use their rights to provide an active role in the development of health services (2, 3). In the beginning years after World War II, the issue of public participation in the field of healthcare was raised by the establishment of the International Red Cross Non-Governmental Organizations (NGOs) and the population supported the prisoners and the wounded (4). Today, it is possible to identify the needs of community health by the people's participation, to plan it, and to implement programs based on the people's strength (5). One of these popular elements is health volunteers of health centers. Health volunteers are one of the local members who may be the first or closest available trained person (1). Considering the successful experience of people's participation, especially the honorary services of health volunteers in their various research, their functions have been studied, which the majority of them indicate their positive impact on improving the health of families and society (6). Most of the health volunteers are the women who have the least reading and writing skills and sufficient time, are interested in benevolent and welfare social activities, have high acceptability in society, and have unpaid expectations. They participate in weekly classes of health centers and offer their proficiencies to their 50 undertaken households. They account as a bridge to connect community and healthcare services, and consider as the symbol of people's participation in providing and promoting their health (4). Their most important tasks of health volunteers include educating issues

related to healthcare, transferring education to undertaken households, reporting the vital events of undertaken households to the health center, monitoring the delayed items of pregnant mothers and under 6-year-old children, providing a connection between health centers and people, transferring community health problems to healthcare units, and a serious effort to solve these problems (5).

The Ministry of Health and Medical Education of Iran, in 1990, designed and implemented the health volunteers' program in southern Tehran to attract people's participation in decision-making, planning, and using their cooperation to provide primary healthcare. In this program, WHO and UNICEF technical part supported and encouraged Iran; therefore, the HV program has become an integral part of Iran's primary health care plan and was successfully implemented in 1993 as a universal program in all areas of the country (7). The program aims to promote better public health awareness for those living in poverty with limited access to healthcare services in both rural and urban environments. In Iran, volunteers are normally selected from among well-respected community members who speak the local language. They must have enough spare time for training and disseminating the messages to their communities. They must have a basic level of literacy, equivalent to completion of primary school. Volunteers are recruited principally – but not exclusively – from among married women. Consent of husbands or other family members is also required. Each volunteer cover at least 50 families in their neighborhood (8).

Due to the wide expansion of urbanization, it is impossible to provide active and reliable health services without the large participation of people. Health volunteers are empowered by their participation and enabled to act as a

bridge between the healthcare services and their communities. As they report on deaths, births, migration and minor diseases prevalent in the refugee populations they contribute useful statistical data for health centers. They mobilize ordinary people to participate directly in addressing identified health needs (9). The most important duties of a volunteer are; supporting in carrying census of population covers by health, participating in training classes and centers, and transferring their learning to covered population. The results of several studies in Iran showed that the presence of health volunteers influenced improving 25% of health indicators (10). But this cooperation faced challenges. Improving the communication skills of volunteers, increasing the participation of employees, and improving to educate proficiencies were efficient factors to maintain the cooperation of health volunteers. Financial rewards and inter-sectional collaboration were the least effective factors. Therefore, it seems necessary to carry out wide research in this regard, so that, today, this vast resource is used to promote community health in many countries in the world (11).

In a study performed by Faear et al. (2012) with the aim of comparison of the performance of health volunteers in the health centers of Shahid Beheshti University of Medical Sciences, the researchers concluded that there was no coherent and organized education curriculum for health volunteers. Besides, the inappropriate educational time and environment, as well as the low quality of education caused to interrupt the cooperation of health volunteers with the program and made the dissatisfaction of the people in that area (11).

Another study was conducted through Metaanalysis, entitled "Community Health Volunteers in Primary Healthcare in Rural Uganda: Factors Influencing Performance". The results of this study revealed that health volunteers play an important role in preventing diseases and injuries (12). Also, providing stereotypical and banal programs are not effective to change peoples' behavior despite the provision of appropriate facilities, continuous and formal education, and the distribution of educational materials. They utilized a coherent and accurate program, along with creating adequate knowledge and awareness for health volunteers and using modern educational methods such as small group discussions, workshops, and face to face training, which are the most effective and efficient ways to improve the level of volunteers' participation (12).

Therefore, it is necessary to pay attention to the required operation regarding the programs and evaluations of health volunteers in-country more than ever (13). In addition, there are many challenges and problems for health volunteers in this way, especially in low and middleincome countries. So, that failure to identify and investigate these challenges can negatively impact the programs and their operations and efficiencies (13). Thus, this study was conducted with the aim of identifying and defining the challenges of the national program of volunteers to be able to impact on removing the existing problems to provide the services by the volunteers and increasing the quality of healthcare services locally, provincially, and nationally. It can be very important to offer our valuable experiences to other countries that face similar problems in this context.

Material and Methods

The present study is a qualitative study based on direct content analysis. Since, qualitative research resign is a formal, objective and systematic process for obtaining information about topics and this method was used to gain insight, explore the depth, richness, and complexity inherent in the phenomenon (14). Therefore, the qualitative method was chosen to explain the challenges of national programs of health volunteers. This research has studied the experiences of competent authorities and their views in the process of arranging and correcting the programs of public participation. Health volunteers from the Iran country programs attended in this challenges from 2020 to 2021. For this purpose, 42 volunteered interviews were performed in a semi-structured manner with health volunteers nationwide.

The sampling method in this study was based on purpose, which was completed by the snowball method.

in this study the target population was the Iranian authorities of the public participation unit and provincial experts of the HV program in different medical universities in Iran. They included in this study if they work in Health Deputies of the Universities of Medical Sciences with more than 10 years experience, and they were provincial experts in the HV program of the Universities of Medical Sciences with more than 5 years of experience.

Data collection was done by interview. In order to set up interview guide question, all published national documentation on the program about the HV program were retrieved from the MoHME¹. Therefore, we found that in medical universities across the country, checklists are used to evaluate the HV program in a quantitative manner. Accordingly, 36 questions were collected from checklists Based on these documents and a questionnaire was devised in order to gather the research sample opinions. Interview started with the main question "What do you think are the most important challenges for health volunteers to participate in health programs?" and

gradually more detailed concepts were extracted in the domain of coordination, participation, structure, and motivation.

The content validity of the questionnaire was confirmed by 5 experts of the Faculty of Health in the fields of health services management, health education, and health promotion. They also asked them about the clarity of the questions and the final questions were extracted.

All interviews were conducted in a quiet environment and separate rooms by the researcher. First, the interview process explained the relevant information and required explanations to each interviewee about the purposes, nature, and procedure of the research component, the individual freedom to participate in the research or to refuse to do it, and their roles to play in the process.

The interview was conducted in an interviewerinterviewee conversation and each interview lasted between 40 and 90 minutes. Data collection continued to gather all required information. In the last interviews, no new code was added to the previous code.

Participants' interviews were first recorded and then immediately after the interview, they were written on the paper, word by word. After qualitative content analysis, subsequent interviews were arranged and designed. These processes continued to collect all required information.

To assess the validity and reliability of the study, the method of Lincoln and Guba was used, which is the validity and reliability of quantitative research approved (15). Based on this method, four criteria of reliability and validity (credibility), transferability, confidence, and confirmation were considered for evaluation. For this purpose, the researcher reviewed the extraction code analysis process and confirmed the validity of the results. To this end, the researcher re-

performed all the steps of analysis, and coding. In all stages of the work and in order to create transferability, research details and notes, and coding were recorded. In this study, a researchermade interview was used to confirm the validity, and the questions were reviewed and approved by three professors in the field of health, and then the method of validation and acceptability was used to determine the reliability. In this way, all the details were recorded on a piece of notepaper, and finally, some coded were returned to the participants to confirm their credibility, and the findings were validated by confirming them.

Data analysis was performed by content analysis and the seven-step method of Klaizi and MAXQDA software. In this study, directional content analysis was used due to the interview guide questions.

In the first stage of the analysis, the researchers tried to better understand the content based on reading the transcripts of the interviews accurately and frequently and describing the situation of each participant (15). The second stage was accompanied by extracting important sentences and words from the text of the interview. In the third stage, conceptualization took place. In the fourth stage, the researchers repeated the third stage for each of the topics that presented by the participants, and they also categorized them.

Finally, in the fifth, sixth, and seventh stages, all the sub-concepts were obtained from the study were combined and presented in the form of a comprehensive description of the phenomenon under study. In addition, some of the interviews, codes, and extracted classes, as well as the researcher and the main collaborators, were reviewed by a number of collaborators to evaluate the accuracy of the coding process.

This research was approved by the Medical Ethics Committee IR.MUMS.REC.1395.352of

and required to follow these ethical points: 1) Informed consent of all interviewees; 2) Give complete information about the purpose of research to interviewees; 3) The comments of interviewees will remain confidential.

Results

This study was a qualitative study of directional content analysis that was conducted to explain the challenges of the national program of health volunteers.

After 42 deep and semi-structured interviews with the authorities of the public participation unit and provincial experts of the HV program of Medical Sciences Universities, date and relevant information were obtained. The results of the study showed that the average age of the participants in the study was 38.9 ± 14.8 and 35.8% of the participants were female and 61.9% were male. The results of the evaluation of participates` job experiences showed that 92.9% of them worked between 3 and 9 years.

In this study, 349 primary codes were obtained based on the content of the data during the interviews and the related note-taking. Considering to overlapping of the codes and their integration, 4 main challenges were revealed. Concepts derived from research are presented in Table 1.

Main Category 1: Coordination domain

A. Lack of coordination and existing interference with health volunteers' programs: the coordination between units to implement the health volunteers' programs will prevent waste funds and confusion in the efficient accomplishment of health volunteers' programs (16).

"Interaction and participation are important principles of promotion, and inter-sectional coordination will impact on health volunteers` programs."(P5)

Table 1: Main themes and Sub-Themes of Interviews on Identifying the Challenges of the National Programs	
of Health Volunteers in Iran	

Challenges	Subcategories
Coordination domain	Lack of coordination and existing interference with health volunteers` programs
	Lack of awareness and adequate knowledge of tasks and planning
	Lack of attention to teamwork and pay attention to individual work
Participation domain	To accompany inter-sectional participation with public participation
	Lack of maximum use of welfare in the health volunteers` programs
Structure domain	Lack of recognition of the public participation unit by other units of the Deputy Minister of Health
	The lack of monitoring and controlling of health volunteers` programs by the Ministry of Health and Medical Education
	Parallel work in health volunteers` programs
	Lack of existing an appropriate organizational structure and a specific framework for the health volunteers` programs
	Lack of participation expert being responsible for public participation in some universities
Motivation domain	Lack of attractiveness of organizational position responsible for public participation
	Lack of attention to motivational factors
	Lack of appropriate budgets for the healthcare programs and public participation unit
	Lack of Inability to empower volunteers to motivate them

B. Lack of awareness and adequate knowledge of tasks and planning: awareness and adequate knowledge about tasks along with proper and targeted planning are the most important and main documents to improve and attract the maximum of people (17).

"Increasing the awareness and understanding of the people involved in attracting public participation and other relevant units about the tasks and objectives of health volunteers can play an important role to advance goals". (p23, P15)

C. Lack of attention to teamwork and pay attention to individual work: In all countries, the teamwork was used to implement health programs and to facilitate the implementation of great projects in the health system. There are various reasons to implement health system plans and affairs related to health volunteers that impact reducing of people's tendency

toward teamwork and their interest to do things individually (18).

"Unfortunately, in implementing health system plans, everyone likes to show their activities and programs more and not to focus on the main goal, which leads to neglect the teamwork." (p 6,p13,p38)

Main Category 2: Participation domain

A. To accompany inter-sectional participation with public participation: The results indicated that health volunteers` programs would get on the best way when there are public and organized participation altogether. It is expected that public and organized participation increase implementation of health volunteers` programs in the best way and these two factors work together well (19).

"We should put public participation up related sectors participation and these two items are correlative." (p 20,P41) B. Lack of maximum use of welfare in the health volunteers' programs: healthcare welfare have an impressive and important role to provide and improve community health. Applying welfare participation in the health volunteers' programs is always emphasized (18).

"The healthcare welfares are well-known people in that area, so they can be a great help through the relationship with the authorities and representatives." (p 1,p18)

"If healthcare welfares are guided by public participation, it will be very good. But unfortunately today, healthcare welfares have moved away from public participated plans and have left them alone. "(p11,p37)

Main Category 3: Structure domain

A. Lack of recognition of the public participation unit by other units of the Deputy Minister of Health: planning to attract participants or continue public participation in different parts of the development based on specified guidelines and motivating requires recognizing other health departments of public participated attraction (20).

"Public participation is discussed to empower and increase the public and social health literacy. It is necessary to recognize health participated attraction unit by other health departments. "(p10,p28)

B. The lack of monitoring and controlling of the health volunteers` programs by the Ministry of Health and Medical Education. Policies and general goals of each university about the health volunteers` programs are separately elaborated (13)

"The best programs are those that each unit carries out for itself, it is better for us to take general instructions from the ministry and, we plan based on our priorities, needs, capabilities, and possessions." (p24,p33)

C. Parallel work in health volunteers` programs:

One of the great challenges in the field of health volunteers' programs is that there is no good and effective interaction among existing arranged plans. A sample of the parallel work in this area can be to arrange and organize programs related to health agents at the same time and along with health volunteers' programs (21).

"Planning programs were checked before being presented and declared regarding the incidence and percentage of parallel work and interference with other programs by Ministry of Health and Medical Education to prevent the loss of labor, fund and, energy." (p12)

D. Lack of existing an appropriate organizational structure and a specific framework for the health volunteers` programs: the structure that is chosen by the manager of the organization volunteers` programs represents the type of organization, its characteristics and effects on their operations (22).

"The structure of the volunteer's unit should have all sub-units at least one section related to public participation unit in their operational programs." (P1)

E. Lack of participation experts being responsible for public participation in some universities:

The presence of participation experts being responsible for public participation will increase the quality of implementing the health volunteers' programs, but some universities don't have this responsibility (21).

"Some universities have participation experts being responsible for public participation, but unfortunately in some other universities, there is no one for this responsibility, and even if there is, it causes to lose its attractions, because no specific benefits belongs to it"(p14)

Main Category 4: Motivation domain

A. Lack of the attractiveness of organizational position that responsible for public participation:

considering the attractive appearance of the organizational post, participant No.7 had the following opinion

"Superiors must make this post more attractive. Regarding many plans and high workload in the healthcare field, we need this attraction of the organizational post. And this attraction should be on behalf of the supervisor." (p26)

B. Lack of attention to motivational factors: to create motivation, it is necessary to identify the needs continuously and try to provide them (21). Therefore, the relevant authorities in the Ministry of Health and Medical Education should design an occupation style to attract public participation unit, in which the motivation of the personnel is preserved and working in the organization environment for the employees is been desirable and satisfactory (16).

"The main challenge of the public participation unit is to make a balance between the general and specific goals related to the personal values of the employees; therefore, the motivation creates the participation. The result is the relationship between individual and situation in which it lies." (P6,P14)

C. Lack of appropriate budgets for the healthcare programs and public participation unit: It is necessary to allocate funds and emphasize on the importance of controlling resources, communicate with the managers of the public participation center programmatically, create motivation for authorities and employees, and increase the efforts to achieve the existing goals (23).

"The biggest problem and issue of health volunteers` programs is its credibility, which it causes to account the greatest possible difficulty to implement the process of the programs." (P13)

"Unfortunately, there is no specific and independent budget for public participation plans." (P12)

D. Lack of inability to empower volunteers to motivate them: empowering the members of the public participation unit it is considered as one of the most beneficial tools to improve the quality of the staff and increase the organizational effectiveness to implement the health volunteers` programs. On the other hand, this process will enable health volunteers to participate in empowerment programs and transfer their skills to their undertaken households which have a great effect on their motivation (24).

"For example, if the health authority intends to use health volunteers in relation to programs such as illnesses or/and health food, the first step will be to be able to empower them, as well as academic competency verification in clinical meetings by the experienced and competent professors in this field will be another way" (P 4)

Discussion

This qualitative study was conducted to clarify the challenges of the national health program of health volunteers in Iran.

The results of this study revealed that coordination, participation, structure, and motivation are the main needs of health volunteers, which were not provided in the national health volunteers` programs. Finally, these themes lead to interrupt the relationship between volunteers and health centers, reduce their motivation, and separate from the goals and determined tasks.

In a study performed by Kok et al., the researchers concluded that there was no coherent and organized educational curriculum for health volunteers. Likewise, the inappropriate educational time and environment, as well as the low quality of education caused to interrupt the cooperation of the health volunteers with the program and made the dissatisfaction of the people in that area (25). Findings of the

health research by Kawakatsu, also showed that the most important and powerful cases are the motivational factors in the volunteers` programs (26).

The results of research was conducted by Kambarami et al. identified the most important challenges for the volunteers` programs such as increasing the preferences of volunteers to define commitment and labor issues, defining the professional specific goals for volunteers, attracting and retaining volunteers and management issues, especially about financial and structural resources (20).

The study was performed by Turinawe et al., indicated that the most important challenges of the volunteers' programs are," the lack of healthcare facilities for volunteers, the lack of benefits, the lack of continuing education facilities, the lack of credibility, and the lack of proficiency posts for the volunteers" (27). The findings of the research about administrative issues showed that administrative problems led to interruption of the relationship between the health volunteers and the program, which was the main reason for the disconnection of volunteers with the program. This case was due to neglecting of authorities in the existing problems, reducing the benefits for volunteers such as giving gifts and sending them to pilgrimage and tour trips, considering benefits such as medical insurance or/and visiting the doctors freely.

The results of various researches showed that sufficient motivation led to the balance in the healthcare programs and carry out the satisfaction of health volunteers from the healthcare programs (21, 22). It means that promoting targeted motivation in health volunteers` programs may lead to keep volunteers hopeful in timed and heavy activities in deprived and faraway areas.

Also, the main results of the study were to monitor and control the health volunteers`

programs by the Ministry of Health and Medical Education. Participants believed that they should be considered in the national health volunteers' programs, which this item was consistent with many results of existing researches (12, 25). It was also very necessary to evaluate the program and health volunteers by the Ministry. Since health volunteers are considered as facilitators and helpers and connectors, their declared program should be reviewed, controlled, and evaluated continuously. On the other hand, health volunteers sometimes influence pointing out the necessary health points by means of massages to the people directly and causing to reinforce their behavior.

Also, the other findings of this study highlighted the use of the welfares in the health volunteers' programs, which was consistent with the results of Mercader Pour et al.(23). Since, the cost of the precise implementation of health volunteers' programs is very expensive in many cases, the role of the welfares is vital in helping social health; therefore, using the proposed model can impact on desirable administrating of these organizations and responding to the needs of the poor people in the city, village, and local area.

With regard to the findings, it concluded that the programs of health volunteers from the very early process of arrangement and elaboration to its implemented process faced with many problems by the Ministry of Health and Medical Education in the city, village, and local area. In this program, many people were not aware of their duties well and didn't have enough knowledge. Some of the organizational charts weren't defined for this program well. To implement this program, there were various inter-sectional inconsistencies. Eventually, any adequate supervision won't be carried out on good implementation of the program by the Ministry of Health. All of these items may be

reduced to achieve higher levels of health prevention and create motivation issues for volunteers to stay in the program. Therefore, to solve this problem and design a precise, coherent and, targeted plan by the Ministry of Health, continuously increase the level of inter-governmental cooperation by adopting appropriate policies and holding meetings is the best way to solve this problem and design a precise, coherent and, targeted plan by the Ministry of Health.

This way is also effective to evaluate the program efficacy, and to add valuable and practical points in this field. In addition, for quantitative and qualitative is necessary to provide training for volunteers by using valid and up-to-date scientific resources and to determine training priorities.

In a study performed by Hoodfart et al., the findings showed that motivating factors such as increasing self-awareness, family-awareness, gaining the power of self-confidence, and being active in the society due to being a volunteer and useful caused to keep the relationship between the volunteers and the centers (17). Moreover, related studies in this area were addressed that team working, clarification of volunteers' role, and providing functional guidelines for the volunteers as the effective factors to manage human resource. Also, it seemed that the level of participation and attraction of volunteers is the one of the effective indicators to evaluate the social management operation (11).

Conclusion

Based on our findings, it can be concluded that the Health Volunteer Programs from the initial stage of development by the Ministry of Health and Medical Education to implement phase in the city, region and, the countryside has many problems. Many people in this program are not aware of their duties correctly. Beside, the lack of awareness, some organizational charts for this program are not well defined too, various inter-sectoral dissonances are evident in the implementation of this program and finally, there is an insufficient oversight by the Ministry of Health for the proper implementation of this program.

These cases reduce the likelihood of health promotion and create motivational problems for the volunteers to stay in the program. Therefore, the Ministry of Health has to increase the level of inter-sectorial cooperation by adopting appropriate policies to designing a rigorous, coherent and, targeted program, which address the above issues. This includes regular evaluation of the program efficacy, and qualitative and quantitative improvement of the training program that should be provided to empower volunteers.

Implications for Policy & Practice

- This study provides a transparent framework for identifying the challenges of the national program of health volunteers in Iran.
- The results of this research can be used by policymakers and health managers and help them to identify the participation challenge of health volunteers in the field of the health.
- Many economic, social, and, educational needs of the health volunteers were not met in the national heath volunteers` programs in Iran
 Conflict of Interest: The authors declare no conflict of interest in the current study
 Funding: The authors received no financial support for the conduct of the study

References

 Yansaneh Al, George AS, Sharkey A, Brieger WR, Moulton LH, Yumkella F, et al. Determinants of Utilization and Community Experiences with Community Health Volunteers for Treatment of Childhood Illnesses in Rural Sierra Leone. Journal of community health. 2016;41(2):376-86.

- https://doi.org/10.1007/s10900-015-0107-0 PMid:26507650
- Taguchi A, Murayama H, Murashima S. Association between Municipal Health Promotion Volunteers' Health Literacy and Their Level of Outreach Activities in Japan. PLoS One. 2016;11(10):e0164612. https://doi.org/10.1371/journal.pone.0164612 PMid:27736942 PMCid:PMC5063291
- 3. Tabassum F, Mohan J, Smith P. Association of volunteering with mental well-being: a lifecourse analysis of a national populationbased longitudinal study in the UK. BMJ open. 2016;6(8):e011327. https://doi.org/10.1136/bmjopen-2016-011327 PMid:27503861 PMCid:PMC4985873
- zareipour M, Fattahi Ardakani M, Sotoudeh A, Tasouji Azari M. The Importance of Tele Education of Family Health Ambassadors in COVID -19 Prevention. Journal of Health Literacy. 2021;6(1):9-12.
- 5. Jafari Y, Tehrani H, Esmaily H, Shariati M, Vahedian-shahroodi M. Family-centred empowerment program for health literacy and self-efficacy in family caregivers of patients with multiple sclerosis. Scandinavian journal of caring sciences. 2020;34(4):956-63. h tt ps://doi.org/10.1111/scs.12803 PMid:31985862
- 6. Byrne F, Grace R, Tredoux J, Kemp L. Structured social relationships: a review of volunteer home visiting programs for parents of young children. Australian health review: a publication of the Australian Hospital Association. 2016;40(3):262-9. h tt ps://doi.org/10.1071/AH15057 PMid:26456798
- Kharaghani K, Habibpour ghatabi K, Barandeghi B. The Role of Tehranian Citizens' Participation in Realization «Tobacco-Free Tehran Programme». Iranian Journal of Health Education and Health Promotion. 2020;8(1):82-92. https://doi.org/10.29252/ijhehp.8.1.82
- 8. Dolovich L, Gaber J, Valaitis R, Ploeg J, Oliver D, Richardson J, et al. Exploration of volunteers as health connectors within a multicomponent primary care-based program supporting self-management of diabetes and hypertension.

 . Health Soc Care Community. 2020;28(3):734-46. doi: 10.1111/hsc.12904. Epub 2019 Nov 28. PMID: 31777125. h tt p s://doi.org/10.1111/hsc.12904
- 9. Gaber J, Oliver D, Valaitis R, Cleghorn L, Lamarche L, Avilla E, et al. Experiences of integrating community volunteers as extensions of the primary care team to help support older adults at home: a qualitative study. BMC Fam Pract. 2020;21(1):92. doi: 10.1186/ s12875-020-01165-2. PMID: 32416718; PMCID: PMC7231411. https://doi.org/10.1186/s12875-020-01165-2 PMid:32416718 PMCid:PMC7231411
- 10. Rezakhani Moghaddam H, Shojaeizadeh D, Taghdisi M, Hamidzadeh Arbabi Y, Savadpour M. Journal of School of Public Health and Institute of Public Health Research. The effect of education by community health volunteers on choice of delivery kind in pregnant women based on the Behavioral

- Intention Model BIM. 2013;10(3):27-40.
- 11. Farsar AR, Younesi M, Fattahi L, Ahmadnia H, Mohammadinia N, B. K, et al. Comparison of the Performance of Health Volunteers in the Health Centers of Shahid Beheshti University of Medical Sciences. Community Health. 2014;1(1):11-20.
- 12. Kuule Y, Eric Dobson A, Woldeyohannes D, Zolfo M NR, MR, Edwin B. Community Health Volunteers in Primary Healthcare in Rural Uganda: Factors Influencing Performance. 2017:62. https://doi.org/10.3389/fpubh.2017.00062 PMid:28424765 PMCid:PMC5372810
- 13. Rezakhani Moghaddam H, Allahveripour h, Matlabi h. Successful recruitment and retention strategies for women health volunteers: viewpoints of the volunteers' supervisors and relevant researchers. Journal of Multidisciplinary Healthcare 2018;11:621-34. https://doi.org/10.2147/JMDH.S180544 PMid:30464495 PMCid:PMC6208547
- Ratelle JT, Sawatsky AP, Beckman TJ. Quantitative Research Methods in Medical Education. Anesthesiology. 2019;131(1):23-35. doi: 10.1097/ALN.00000000002727. PMID: 31045900. https://doi.org/10.1097/ALN.0000000000002727 PMid:31045900
- 15. Guba EG, Lincoln Y. Effective evaluation: improving the usefulness of evaluation results through responsive and naturalistic approaches. San Francisco: Jessey- Bass; 1981.
- 16. Javanparast S, Baum F, Labonte R, Sanders D. Community health workers' perspectives on their contribution to rural health and well-being in Iran. Am J Public Health. 2011;101(12):2287-92. https://doi.org/10.2105/AJPH.2011.300355 PMid:22021303 PMCid:PMC3222427
- 17. Hoodfar H. Health as a context for social and gender activism: female volunteer health workers in Iran. PopulDev Rev. 2010;36(3):487-510. https://doi.org/10.1111/j.1728-4457.2010.00343.x PMid:20882703
- 18. Kok MC, Kane SS, Tulloch O, Ormel H, Theobald S, Dieleman M, et al. How does context influence performance of community health workers in low- and middle-income countries? Evidence from the literature. Health Res Policy Syst. 2015;13(13):doi:10.1186/s12961-015-0001-3. https://doi.org/10.1186/s12961-015-0001-3 PMid:25890229 PMCid:PMC4358881
- 19. Maher D, G. C. Research on community-based health workers is needed to achieve the sustainable development goals. Bull World Health Organ. 2016;94(786):doi:10.2471/BLT.16.185918. https://doi.org/10.2471/BLT.16.185918 PMid:27821877 PMCid:PMC5096357
- 20. Kambarami RA, Mbuya MN, Pelletier D, Fundira D, Tavengwa NV, RJ. S. Factors associated with Community Health Worker performance differ by task in a multitasked setting in rural Zimbabwe. Glob Health Sci Pract. 2016;4:238-50. doi:10.9745/GHSP-D-16-00003. https://doi.org/10.9745/GHSP-D-16-00003 PMid:27353617 PMCid:PMC4982248

- 21. Vareilles G, Pommier J, Kane S, Pictet G, Marchal B. Understanding the motivation and performance of community health volunteers involved in the delivery of health programmes in Kampala, Uganda: a realist evaluation protocol. BMJ Open. 2015;5:e006752. doi:10.1136/bmjopen-2014-https://doi.org/10.1136/bmjopen-2014-006752 PMid:25631314 PMCid:PMC4316434
- 22. Singh D, Negin J, Orach CG, Cumming R. Supportive supervision for volunteers to deliver reproductive health education: a cluster randomized trial. Reprod Health. 2016;13(126):doi:10.1186/s12978-016-0244-7 https://doi.org/10.1186/s12978-016-0244-7 PMid:27716313 PMCid:PMC5048471
- 23. Mercader HFG, Kyomuhangi T, Buchner DL, Kabakyenga J, JL. B. Drugs for some but not all: inequity within community health worker teams during introduction of integrated community case management. BMC Health Serv Res. 2014;14(Suppl 1):S1:doi:10.1186/472-6963-14-S1-S1. https://doi.org/10.1186/1472-6963-14-S1-S1. PMid:25078968 PMCid:PMC4108853
- 24. Naharuddin NM, Sadegi M. Factors of workplace environment

- that affect employees performance: a case study of Miyazu Malaysia. Int J Independent Res Stud (2013;2(66).
- 25. Kok MC, Dieleman M, Taegtmeyer M, Broerse JE, Kane SS, Ormel H, et al. Which intervention design factors influence performance of community health workers in low- and middle-income countries? A systematic review. Health Policy Plan. 2015;30:1207-27. doi:10.093/heapol/czu126 https://doi.org/10.1093/heapol/czu126 PMid:25500559 PMCid:PMC4597042
- 26. Kawakatsu Y, Sugishita T, Kioko J, Ishimura A, S. H. Factors influencing the performance of community health workers in Kisumu West, Kenya. Health Care Res Dev. 2012;13:294-300. doi:10.1017/S1463423612000138. https://doi.org/10.1017/S1463423612000138 PMid:22717333
- 27. Turinawe EB, Rwemisisi JT, Musinguzi LK, de Groot M, Muhangi D, Mafigiri DK, et al. Towards promotion of community rewards to volunteer community health workers? Lessons from experiences of village health teams in Luwero, Uganda. Res Health Sci. 2016;1(85): doi:10.22158/rhs. https://doi.org/10.22158/rhs.v1n2p85