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Factors affecting community-based participatory research in Iran: a qualitative study on health sector stakeholders' view

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Abstract

Community-based participatory research is an important strategy to deal with public health challenges. However, the application of community-based participatory research in public health has encountered many challenges. This study was conducted to address academic perspective about the challenges and factors that are influencing on the community-based participatory research in Iran. A qualitative design using a conventional content analysis approach was employed to collect and analyze data. Twenty – one participants were recruited by using purposive sampling. The data were generated through semi-structured interview. In this work, we found that there are different factors that influence the community-based participatory research projects. These factors are categorized into four main categories: "interpersonal relationships", "readiness", "environment-conducive", and "institutional issues". This study yielded valuable results for researchers aiming at implementation of community-based participatory research in Iranian community. Further efforts should be directed towards improving academician capacity and creating systems to support this method of research.

Keywords: Community Participation, Community-Based Participatory Research, Iran

Introduction

Over the last few decades, health practitioners recognized the significance of community engagement in health research and put an emphasis on it [1]. Participatory research is an approach in which researchers are working along with the community to create evidence for action [2]. Community Based Participatory Research (CBPR) is the one which highlights individual, organizational, and social capability. In order to perform more successful health interventions and to create more stable changes, this approach takes away the power of decision making from the domain of experts and professionals and leads it to the common decision making with community representatives [3]. Comprehensiveness of CBPR has caused this approach to be more helpful in controlling different chronic health problems such as asthma, diabetes, cancers [4-6], smoking cessation, obesity, and heart diseases [7,8]. The key of CBPR lies on the community engagement and cooperation development between the academics and community [9]. For the purpose of planning, implementation and assessment, the researchers and community need to be

trained and to acquire skills [10]. Evidence suggests that creating community engagement and making cooperation development between the community and researchers are tricky and they are associated with numerous challenges [11,12].

Over the past decade in Iran, CBPR approach was considered by some researchers and health authorities in the field of health research. In this regard, Ministry of Health and Medical Education (MOHME) established 13 Population Research Centers (PRCs) in 2002 (which later were renamed to Social Development and Health Promotion Research (SDHPR) centers. These centers have chosen the CBPR approach as a strategy to deal with the health problems of the community. The PRCs have steering committees comprising of local community representatives, university researchers, health care administrators, and deputies of social organizations, following three perspectives:

1) Increasing community participation in the health promotion programs to achieve human development
2) Adopting community engagement strategy and empowerment
3) Conducting research towards development [13,14]

This study was a qualitative research study carried out to describe the experience of academic researchers and practitioners of PRCs about factors affecting collaboration development between community and professional stakeholders to clarify the challenges with which researchers and authorities are encountering when using the CBPR.

Method

Qualitative paradigm with conventional content analysis method has been used in this research to attain the participants' experiences. Content analysis is a kind of qualitative research method in which coding categories through inductive method is derived directly from raw data [15]. In this study, research population included health sector stakeholders who were experienced in CBPR projects. The subjects were selected using purposive sampling which was accomplished in two stages. In the first stage, to access the people having participatory experience, some health projects rested upon CBPR were chosen. The criteria for selecting the projects included: projects developed by PRCs rested upon CBPR approach, projects developed based on participatory needs assessment with local people, projects started at least six months earlier, and engagement of local people at all stages of the project according to the documentations. In the second stage, researchers, experts, and directors of the PRCs and university research vice chancellors who had direct engagement in the selected health projects rested upon CBPR included in this study.

In order to investigate more on the engagement process, some of the experts in charge of PRCs in Deputy of Research and Technology of Ministry of Health and Medical Education were also interviewed. All in all, 17 stakeholders with direct experience in the projects rested upon the CBPR approach, from five PRCs (Tehran, Zanjan, Kashan, Qazvin and Gonabad) [16-20] and 4 experts MOHEME included in the study. Sample size was determined through saturation of data. In order to collect data, the semi-structured interview method was used. The interview lasted between 50 and 70 minutes and interviews were recorded digitally. After selecting the participants, the interview was conducted individually by the first author in the PRCs or participants' workplace. The main focus of interview questions was on the explanation of the participant's experiences about community engagement and how the collaboration between local people and academic researchers was developed in the CBPR project. The interviews would begin with a genera question about the extension of the project and ended in more specific questions about developing collaboration between community members and professional stakeholders and factors affecting the collaboration among them.

In this research, data were analyzed

simultaneously with the collection of data. In order to analyze the data, tape recordings of the participants' interviews were transcribed immediately word by word. To be familiarized and overwhelmed with the data and in order to achieve understanding and new insights, the data were studied several times. In order to identify the key concepts and sentences, the text was studied verbatim and a code was given to every meaningful sentence. In the initial coding, participants own words and indicative codes were used and by this means preliminary codes were identified. In the next stage, the codes were studied many times and by utilizing constant comparative techniques, the same codes were classified in a group. Depending on the relationship between subcategories, a number of them were organized in other categories. In order to increase the rigor and acceptability of data, different methods were used. To establish the credibility of the data in data analysis, member check and simultaneous analysis were used. Thus, two researchers familiar with the methods of qualitative analysis studied the coding process and researcher's interpretation. In addition, after analyzing the data, to approve the coded interviews, they were given to the participants. Having the maximum of variation in sampling, setting the inclusion criteria for selection of samples, using daily diaries during the collection and analysis of data (recording the researcher's comments and ideas during the process of making the research) were other measures for increasing the rigour of data.

Results

132 initial conceptual codes extracted from research data were classified into four main categories including interpersonal relationship, readiness, environment-conducive, and institutional issues.

Interpersonal relationship category gave three subcategories, readiness category two subcategories, environment-conducive two subcategories, and institutional issues four subcategories, as follows:

1) *Interpersonal relationship:* Interpersonal relationship was one of the categories resulted from conceptual analysis of interviews with academic stakeholders in relation to affecting factors on community involvement. The positive interpersonal relationship was an important factor in developing collaboration between community and professional stakeholders. This category included three subcategories such as communication, trust, and respect. The majority of participants stated that making a relationship by dialogue was an effective factor in creating mutual relationship and collaboration among partners. One of the academic staff said: "In the Recycling project through holding various meetings and making dialogues, we could change municipal officials' views for collaboration in the project". In spite of the significance of dialogue in developing the collaboration between community and professional stakeholders, a number of participants expressed that making clear, comprehensible relationships with community was challenging and emphasized that at present there is not sufficient relationship among health researchers and community. One participant who was the head of one of the PRCs expressed: "I saw during instructing research method for local people, they did not much understand me... consider that each group has its own view of literature… I, as a doctor, do not speak with people by their own language". Another researcher working at a PRC also pointed out, "After instructing for two or three sessions, I understood that we cannot solve the problem of relationship between the community and ourselves in short-term" and "in order to overcome the problem in relationship with community, we instructed a number of locals and used them to train the research method to the local people… Well, these people solved our problems considerably" he added.

Among the factors related to interpersonal relationship, almost all participants identified the mutual trust among stakeholders as an important factor in community engagement especially at the beginning of the projects. According to stakeholders' view, lack of trust

at the beginning of the participatory projects was one of the significant challenges which caused the process of starting the projects to progress in slow paces. One of researchers, who were the staff of PRC, said: “One of the most important challenges that I should highlight is the lack of trust between community and us”. The trust among stakeholders was influenced by the feedback that community members received from previous participations and attitudes that community members had towards inviting organization to participation. In this regard, one participant who was a researcher and staff of PRC stated: “When we came to people’s houses in order to fill out the primary community need assessment form, the people asked us first to deliver them the report of blood test which was taken before (related to the project of Healthy Heart) and then come to gather new information”. Another researcher working at a PRC reported the same statements: “At the start of the project, building the trust was the hardest task because some of the managers had started a project in the past and got involved the community in the project but when they were finished, the next manager doesn’t follow the former manger’s project, so the community members don’t benefit from their participation”. Another participant who was also a researcher and staff member of a PRC expressed, “I remember that in south area of the country, we started participatory project concerning addiction with the help of a state organization, well, this organization distributed sterile syringe in order to prevent AIDS and hepatitis, but these syringe were not collected well throughout the city and this problem caused the distrust of community towards us”. Researchers utilized various strategies to improve the community trust. The majority of participants believed that being honest with community is the most significant strategy to attract the trust of community in participatory projects. In this regard, the head of one a PRC said: “when the PRC started to work, numerous local youth came to the center while they thought they can be employed in the center but I told them we don’t have the possibility of employment, so many of them abandoned the center”.

Developing short-term projects on the basis of local people’s interest was one of the other strategies to attract the trust of community towards professional stakeholders. One of the interviewed researchers from a PRC declared that “my colleagues and I before starting the main project, defined and performed a short-term project regarding the revival of traditional games through local people’s participation. Well, this project largely solved the problem of distrust between the community and us”. In order to improve the trust and facilitate making relationship with local people, some of the local Women Health Volunteers who had the experience of involvement in community health care projects were used by some of researchers. In this regard, one of the academic staffs said: “I got Women Health Volunteers to engage in the project since they were more skilled in keeping relationship with community and most importantly, they were known and trusty for the most of the local people”.

Respect was the third subcategory of interpersonal relationship which affected the relationships among stakeholders. The topic of respect was influenced by difference of power and feeling of inequality between community members and professional stakeholders. In this respect, a General Practitioner (GP) who was the staff of a PRC and also worked as a researcher assistant told: “In a meeting with local people, some of my colleagues considered themselves superior to the local people and behaved like that the people were their subjects. Well, this view does not let them behave politely with people… Sometimes the community members told me that all of you are doctors and engineers and we are not at ease to take part in the meetings”. Some of the participants believed that respect was one of the encouraging factors to start community participation and its continuity. One participant who was the head of a PRC said: “You think why this young man spends such a much time on the project of Safe Path

Development for the Motorcyclists. Because we care for and respect him and he knows that whatever his view is I respect and consider it".

2) *Readiness:* Readiness was the second category resulted from data analysis which was a factor affecting stakeholder's engagement in health projects on the basis of CBPR approach. Readiness was composed of two subcategories of motivation and capacity. Motivation was a vital factor for the researchers to develop the participatory projects. Self-satisfaction was one of the reasons for some academicians to develop such projects. Some of the researchers defined engagement in such projects as satisfying and enjoyable. One researcher who was an academic staff and had the experience of developing numerous participatory projects mentioned, "One of my reasons for engagement in PRCs was my interest in the dealing with the society. Working with people is fascinating to me. When you help people to solve their problems by themselves you do feel satisfied and happy".

For a number of professional stakeholders who were heads of PRCs, the stimulus for involvement in CBPR projects was the promotion of community health quality. One participant who was a key informant from MOHME said: "The current health care program is no longer work for public health care needs. We can't be successful in decision making, health care policy making, and reducing health care costs when the users of public health services are not involved in decision making of health care programs". Accessing the resources and knowledge was another stimulus for developing CBPR projects. One academic staff stated: "Solving health care problems is beyond the government capability. For the time being, people's literacy has been improved. They themselves have solutions for their problems. Through community engagement, we can access to community solution and localize them".

Capacity includes stakeholders' knowledge and skills in connection with the concept of involvement and its methods. The majority of participants believed that the capability of all partners is effective in their engagement. According to researchers' points of view, CBPR projects provided historic opportunities for their personal and professional development. One participant who was a researcher in PRC stated: "This type of research was very modern and attractive and it helped me to work with an important part of the community and be familiar with new methods like qualitative research".

Though involvement in such projects was considered positive in the researchers' points of view and was accompanied by learning new methods, the majority of participants believed that lack of sufficient knowledge about this type of research was one of the most significant experienced challenges. A GP who was working at a PRC as staff claimed that "This type of research method varies from the traditional one. I, as a general practitioner in the course of academic education, had no idea about this kind of research…. There were times that we did not know what to do next and we proceeded with trial and error". Another researcher from a PRC told: "Transferring health care knowledge to people and creating changes in the society is difficult… Community is different from hospital because you don't have control over the community… For developing such projects, you need knowledge in the field of social sciences, too". Some of the participants believed that lack of knowledge about CBPR approach caused a delay in carrying out the projects. Another researcher stated: "As a G.P, I got to know the concept of health promotion and engagement in my course of education somehow but I did not take any training courses about CBPR… I didn't have even work experience in community field. So, advancing in the CBPR project was very difficult for me and the project was ongoing very slowly… well, working with community involves its special skills". Another participant who was the head of one of PRCs said: "Well, you know at the outset of PRC's, we did not know the concept of engagement. I remember that when I supposed to give a speech about engagement, I used the book "Community

as a partner" and found out that engagement is such a vast concept and there are too many theories regarding participation. Then, I got that I didn't know anything about participation and engagement at all". Lack of capacity even affected establishing partners' interpersonal communication so that some of participants expressed that one of the main reasons for communication challenges between the community and academics was due to the lack of knowledge about principles of establishing a relationship with local people among the staff project. One of the researchers working at a PRC made a comment in this regard, "I had problems in instructing research method and need assessment for local people. The people didn't understand me. We "academics" don't know how to talk to people in their language at all". The participants believed that it was not merely academics' knowledge and capacity with regard to CBPR approach and participation process which affected the development of collaboration between community and professional partners but people's capability impacted the process of participation, too. Some of the participants had a belief that an effective engagement in the project involves they acquire a series of primary skills such as team work skills and be familiar with civil rights, and be aware of local health problems. One of the academic staff said: "By holding a workshop on research method and need assessment, people only could identify their local needs. They didn't acquire enough capability for collaboration in interventional projects so my colleagues and I wrote a series of pocket books regarding identified health problems and distributed them to the local people".

In order to deal with the lack of capacity of local people, some of the researchers involved in their projects Women Health Volunteers who had participation background in health related programs. One of academicians said: "I got local Women Health Volunteers to enter my project since they had some years of experience in health education in the community; they were familiar with health problems and they were able to establish a relationship with people somehow".

3) Environment-conducive: The findings showed most of the participants believed that the level of community participation was affected by the environment-conducive. Environment-conducive is divided into two subcategories including recognition and consistency.

The recognition of a community member by professional partner was a factor which influenced the collaboration between community and professional partners. Community engagement level and to make decisions was not similar at all stages of the project. The highest level of engagement was at the stage of need assessment and CBPR projects selection. The review evidence and documents revealed that all the selected projects were developed according to community need assessment based on collaboration of all partners; but during planning and implementation phases, community engagement level varied from recruiting as the workforce to involvement in the implementation stage of project and having the right to make decisions in selecting educational interventions.

The lowest level of engagement was regarding the writing of the project, reporting, and publication of the results. Although the academicians stated that the community members can engage in publication of the results at the local level, a number of them believed that there is no need for community engagement in publication of the results in the form of articles. One of the academic staffs stated in this regard that, "Well, writing an article is a scientific task which is in the qualification of academicians; when common people have not ability to do such a task, why it is necessary to involve them in such activities?".

The consistency among stakeholders was another factor affecting community engagement. The consistency is formed when there are common points of view between the stakeholders regarding the aims and outcomes of the project. Achieving the consistency

among stakeholders has some challenges. One of the reported challenges in this context was related to the social organizations which didn't show enough collaboration in providing the resources of projects because they preferred to allocate their resources on their organizational priorities rather than community needs identified by the CBPR projects. One participant who was a researcher and staff in PRCs told: "when the PRC just started its activities, we wanted to develop Sport project for local women according to area need assessment; then, we called for the cooperation from Physical Education Organization but the director of the organization told that our priority for this year is to buy sporting goods for our gyms and women sport developing program is not our preference in this year". Reaching an agreement was possible when the partners in the development of CBPR projects focused on the common aims instead of considering the organizational priorities, one participant who was the head of PRC remarked that, "In Recycling project, the collaboration was better since all partners including researchers, municipality representatives, and community members agreed on the project goals… This project was developed based on the result of local community participatory need assessment and the issue of garbage recycling was of interest and preference for municipality department, too".

Another factor affecting consistency among partners was various expectations and perspectives of the partners about the purpose and outcomes of the projects. Different perspectives among partners sometimes caused helplessness and despair among them. One of the participants who was a researcher and staff of PRC stated that, "We pursue to localize our solutions while organizations pursue their interests and people expect that by conducting the project their health problems are solved in a short period of time".

4-Institutional issue

Institutional issue was the fourth category which composed of subcategories such as institutional benefits, institutional structure, institutional valuation system, and organizational stability. The development of CBPR projects had some benefits. In relation to these benefits, academicians believed that CBPR approach provided an opportunity to train the students in the field of society. From the interviewee's standpoint, the relation established among researchers, social community organization, and community during this kind of projects was beneficial. The participants believed that involving in such projects improves the relation between universities and communities and it helps the academician and other professional stakeholders to access better social resources. One academic staff stated that, "The students whom I involved in the field of society got the experience to work with people. They learned how to communicate with people and social organizations. Well, such experience is not achieved by working at hospitals and clinics. To enhance the community based medicine and university development, we need these experiences".

Although some of participants believed that CBPR approaches is a way to improve and maintain the relation of universities with community, the majority of participants expressed that organizational structure of scientific institutions and social organizations were the most significant obstacles which restricted community engagement possibility and development of collaboration among stakeholders. From their points of view, in the existing form of organizational structures, collaboration of social organization depends more on managers' attitudes rather than organizational tasks. One of the interviewed researchers from PRC told that, "There is no definite organizational structure for community participation in organizations. That is why if a manager's attitude is positive towards the community engagement, we are at ease to attract intersectoral collaboration but if managers' attitude is not positive towards the community engagement, there is no sufficient support for participatory projects".

The institutional valuation system was another affecting factor on CBPR projects in

the domain of organizational issues. Although academicians and other health care workers have key roles in developing and proceeding CBPR projects, the present institutional valuation system of academicians is not provocative for them to develop such projects. The following sentences were expressed by one academic staff “you should take a glance and see that the participatory projects are very difficult and time- consuming and sometimes the results of a participatory research study cannot be published easily… My head of department asks for an article to give me a promotion… Well, I should pursue a project with which I can publish articles sooner”.
One participant with master degree in nursing working at PRCs remarked that, “I spent plenty of time at a PRC and was involved in numerous participatory projects. Our center among type 2 universities acquired the second place in developing health project based on CBPR approach, but when I returned back to my office I didn’t feel they are proud of me at all because my boss never appreciated me. I think that such research activities are not of importance for them at all”. The majority of the participants believed that the support of CBPR approach requires a change in institutional valuation system of faculty members. One academic staff stated: “As long as, the criteria for evaluating the members of faculty are publishing articles rather than a change in society health, they won’t have enough motivation to develop participatory approach… The evaluating system of faculty members needs a change”.
Changes in the structure and management of the organizations were other subcategories of institutional issues. According to the participants’ experience, frequent changes of managers were one of the reasons for slowness in conducting participatory projects and insufficient support of social organizations for the participatory projects. One of the researchers working at PRCs said, “The crucial problem with which I encountered during the participatory project was the frequent changes of managers. When a a manager of organization involved in a CBPR project changed during the project, justifying the new manager to collaborate sometimes took days and weeks, so implementation of the project was interrupted”.

Discussion

The result showed that community engagement and collaboration development among academic researchers and people are affected by various factors at individual and structural levels. Developing such projects like other projects based on CBPR approach in the PRCs had advantages and challenges. The most reported challenges by researches in the process of developing collaboration among the community members and academicians and other professional partners included communication problems, inconsistency with different partners’ perspectives, professional partners’ lack of knowledge and ability about CBPR approach, and organizational obstacles. Speaking with whole participants, all of them emphasized the significance of comprehensive continuous communication based on trust and respect among community and professional stakeholders; something that encounters challenges at present. The communicative challenges between community and academics has also been reported by other researches [9,21,22]. Of course, as the results showed, health researchers by engaging in the projects learnt how to work and overcome the challenges through showing honesty, employing local Women Health Volunteers, and developing preliminary short-term projects. The findings showed although a number of researchers acknowledged that developing participatory projects made some opportunities for their profession and personal development, the findings imply that their learning in some cases was gained through trial and error. Professional partners’ lack of knowledge regarding participatory approaches to improve health promotion has also been reported by other researchers [23,24]. According to the principles of CBPR approach, capacity building and mutual learning of partners

are the main criteria for evaluating the CBPR projects [23]. Therefore, a potential need for capacity building is felt in relation with CBPR approach; also, acknowledging a position for this kind of research in the curriculum of public health researchers will be useful.

To establish successful communication with partners, it is recommended that in training researchers for CBPR projects, it should be focused on the skills such as communicative and team-work skills, institutional skills like the ability to work in different type of power structure, and learning strategies for interpersonal conflict resolution. The CBPR approach has not been included as a research method in the curriculum of medical and public health fields so far. At present, a few universities throughout the world have taken clear steps so as to support and encourage the academicians to involve in CBPR projects. Unfortunately, there have not been established organizations to support the communication between university and community yet in Iran except for these PRCs. Some of sophisticated researchers proposed that strengthening CBPR approach requires reinforcing incentives and capacity building in public health researchers and amending promotion regulations of academicians [22].

Recognizing the community as a colleague was another factor which affected the level of community engagement and the collaboration formed among community and other professional stakeholders in the CBPR projects. According to the results of the study, the highest recognition of community members was in the process of need assessment and planning and the least in the phase of publishing the results. Lack of community recognition by professional partners was reported also by other researchers [1,28]. The results of this study showed that one of the reasons to the lack of community members' recognition by this group is that the professional partners have no positive attitude towards the capacity of community to make such a research [28]. The issue of lack of recognition may also be due to difference of power among community and professional partners. In the present study, discrepancy of power between community members and researchers may be due to the difference in knowledge [1]. So, decentralization of power is vital in order to involve common people who have not enough research knowledge in the process of CBPR project [29].

The inconsistency among stakeholders was another factor affecting community engagement and collaboration among partners. As the results showed in frequent cases, one of the reasons for inconsistency was the emphasis of social organizations on their priorities. Whenever organizations have inflexible regulations, utilizing the approach emphasizing decentralization of the power and improving the equality among partners is difficult [30]. Anyway, it is logical that in CBPR projects, partners have different points of view regarding the projects but what is important is that the involved partners should express openly their views at the outset of the project [28].

The results also showed that lack of definite position for community engagement in organizational structure of social organizations and the superiority of top-down approach were the challenges in providing enough support for participatory projects, whereas inter-organizational collaboration for CBPR approach is vital [31]. Therefore, the results of this study emphasized this idea that top-down organizational structure did not provide enough support for participatory approach [32]. Engagement is often used as a means in top-down organizational structure while in CBPR approach engagement is considered at the empowerment level [25]. So, the findings of the current study emphasize other researchers' suggestions which stated that academic institutions and researchers should comprehend the difference of organizational resources between CBPR and traditional researches [7,9]. Lack of definite organizational positions, obvious circulars and regulations for community engagement were reported by other researchers [33]. At present, there is a dire need for more

studies so as to identify and allocate necessary organizational infrastructures for profound, effective reinforcement of CBPR approach.

Conclusions

This study generated useful information about affecting factors and challenges regarding CBPR approach in Iran. Based on the findings of this study, community involvement and collaboration between community and professional partners were influenced by various factors such as interpersonal relationship, readiness and capacity of partners and recognition of community member by professional partners .In addition to the above factors, at the organizational level factors such as institutional structure, institutional valuation system, and organizational stability affected on the collaboration between people and the partners. The development of collaboration between the community and professional partners has been associated with numerous challenges.Inordertoovercomethesechallenges professionals have employed various strategies but it seems that applying these approach to the current organizational structure requires the development of capacity and competency in professionals and academics. However, in addition to enabling professional partners, to reinforce the community action empowering of community should be considered too.

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Study design: NB,RM, RH, IF, HA
Data collection and analysis: NB, HA
Manuscript preparation: NB

Conflict of Interest

"The authors declare that they have no competing interests".

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