



Original Article

Community Health Assessment to Identify and Prioritize Health Problems

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Abstract

Background: Community health assessment is a process in which researchers achieve a proper understanding of the community health status through the community active participation. The present study was conducted aiming to identify and prioritize health problems of Meshkin Tappeh village with people's direct involvement.

Methods: This study was conducted using the community assessment method in Meshkin Tappeh village in the city of Bueen Zahra, Iran, based on the North Carolina model. One person was selected from each household, and a total of 271 people were entered into the study. The community health assessment process was performed in 8 stages and problem prioritizing was also carried out using Hanlon's scoring matrix method.

Results: At the village level, 32 problems were identified in 6 areas, including problems related to health area (31.2%), municipal services area (21.8%), educational and cultural area (15.6%), economic and employment area (12.5%), social and citizenship rights area (12.5%), and security area (6.4%). Based on the matrix table scoring criteria, the problem of drug peddlers (15 points), poverty and low income (14 points), dropping out of school (13 points), emergency preparedness in unexpected events (12 points), and non-financial support for many health costs (12 points) were identified as 5 main problems at the village level.

Conclusion: In this research, a broad spectrum of social, cultural, economic, and health problems were identified. Although the selected priority for further assessment was allocated to the problem of drug peddlers, solving all these problems requires the consultation and cooperation of all public institutions and organizations and the people.

Keywords: Community assessment, Community health, Health prioritization

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Introduction

Every healthcare system across the world is responsible for solving the needs and problems related to community health (1-3). Health is dependent on all aspects of individuals' lives, particularly on social factors (4). The community needs may manifest as felt needs, i.e., needs that are recognized by the community members or specified in the form of real needs by the specialized investigation of the community. Addressing community problems requires consideration of different dimensions (5,6). To achieve this goal, proper planning should be performed based on the available resources to solve the problems that are prioritized regarding importance and seriousness (4).

In this regard, community health assessment is a process through which community members properly understand the community's health, worries, and healthcare system (7). Community assessment is indeed the basis for establishing strategic policies for policymakers and managers in the health area so that they

get a better view of the community problems, worries, and cons and pros and their management domain (8,9). Community health assessment aims to collect health problem-related data, analyze data and draw conclusions regarding the required capacities to supply the necessary resources to solve problems and promote health (10-13). In community health assessment, as is common in the North Carolina community health assessment process, community members have a leadership role. Within this framework, the assessment process begins with the people who live in the community and take the primary responsibility of determining community health assessment at all levels, including data collection and interpretation, assessment of health resources, determination of health problems, and development of strategies to deal with these problems. From this perspective, community assessment is performed by the community not on the community (14,15). The outcome of this process is to address the needs of people by taking into account the researcher's perception of the region's



problems, public opinion, and the region's priorities by providing an operational plan (1). Every community has its unique set of goals, aspirations, resources, history, and future possibilities. Therefore, a thorough evaluation of each community can prove to be beneficial in making informed decisions for different scenarios (4).

Given that similar studies have been conducted in this regard in some different cities in the country, and no study has been conducted on health needs assessment in this region so far, and, on the other hand, traditional needs assessment methods have not been able to take effective measures in determining the region's health needs and priorities and they have lost their place with the passage of time, we decided to conduct a study aiming to identify and prioritize the community health problems in Meshkin Tappeh village in the city of Bueen Zahra with the direct participation of the local people and using the North Carolina study model.

Methods

The current research is a community health assessment study conducted after obtaining the code of ethics (IR.SBMU.SME.REC. 1402.018) from the National Committee of Ethics in Biomedical Research and the necessary permits by complying the confidentiality principle in Meshkin Tappeh village in 2023. Meshkin Tappeh village is located 12 kilometers away from the city of Bueen Zahra, Qazvin province, Iran, with a population of 784 people and 271 households. This study was conducted based on the North Carolina Health Community Assessment Model a well-known and advanced method (16). Based on this model, the community assessment was performed in 8 stages.

In the first stage, the community assessment team, which was responsible for the community assessment process, was formed. The group members consisted of the staff of the comprehensive health service center and were local key and prominent individuals. We tried to select individuals in this team who had sufficient incentive to act as representatives for a broad spectrum of the community and present the worries and demands of different community groups in a suitable way.

In the second stage, the community assessment team proceeded with collecting data in a convenience method at the village level, which the sample size consisted of all households under coverage by the health center, in such a way that from each household one person meeting the inclusion criteria, including living in Meshkin Tappeh village for at least one year, having above 18 years of age, and being inclined to cooperate in the project, was included into the study. Finally, 271 people were included into the study. The exclusion criteria included non-cooperation and inability to understand the community needs and problems. At this stage, according to the performed notification, all households were referred to

and the study objective was clearly explained to each of the interviewees; then, the community problems and needs were identified and collected using the Community Health Survey Questionnaire, including a checklist containing demographic information, and also the required data in 6 sections, including quality of life description, community progress, health information, personal health, access to family health care, and emergency preparedness. This checklist is a standard questionnaire in English and Persian languages containing 46 various questions through which the data were collected directly from the residents of the region. This questionnaire has been pre-tested in previous community health assessment investigations, and its validity and reliability have been confirmed in the Community Health Assessment Manual (17) as a standard questionnaire. In previous studies, this checklist has also been used by Rahmani et al. to assess the community and prioritize village problems (3).

Afterward, a group discussion session was held to collect qualitative data using a questionnaire designed as a guide for questions, including the starting question, introductory questions (healthy life methods, health behaviors, and sources of gaining health information), key questions (the most serious health problems in the village, community health obstacles, suggested solutions, and introduction of at-risk groups), and the final question (materials that participant is inclined to add regarding the session topic) with the presence of the assessment team and 11 key individuals from among the village people. This 90-minute session held at the health center was guided by a mediator (from the assessment team) who used open questions that were carefully designed and focused on specialized topics to encourage individuals to participate in the discussion. During this session, individuals were encouraged to express their problems and needs through brainstorming. Finally, the obtained data were analyzed using the content analysis method.

The third stage was the stage of collecting and analyzing health data obtained from secondary data sources (the Health Network of Bueen Zahra). In this stage, the community assessment team extracted all health information from the health management panels and the SIB system (the integrated health system) with the cooperation of a healthcare worker and the supervising healthcare provider in the health center and compared in the form of health indices along with the health indices of Bueen Zahra health and treatment network, which are geographically under its supervision, to obtain a picture of what is happening in the community and finally to determine the community's probable problems.

In the fourth stage, the secondary data obtained from the health center were combined with the data and needs obtained from the second and third stages and were assessed. The two lists were then compared, and duplicates were deleted from the lists and a comprehensive list of

problems was prepared. In the fifth stage, the community assessment team reported its assessment results, which encompassed a list of all health problems in the village, to the regional health authorities.

After identifying the problems and to prioritize them, in the sixth stage, with the presence of the group members and using Hanlon's matrix method, the village's ten main priorities were specified (18,19). In this method, the working group members were provided some forms, and the members scored the items of these forms, including the problem extent, the consequence intensity, and the correctability, for each title. Finally, the mean scores for each title were calculated, and the village problems were listed in the order of the highest mean score. The need with the highest total score was selected as the most priority need and other needs were also numbered in order.

In the seventh stage, the community assessment team prepared a documented report of the assessment process along with its complete findings and submitted it to the community members, including regional health authorities, and several trustees in order to make the authorities and the people aware of the activities performed by the community health assessment team and the achievements obtained during the assessment process, to engage community members in this process through publishing the assessment results, and to plan to solve the problems with their help and consultation. In the last stage, the community assessment team presented operational programs to solve the problem that possessed the highest priority among other problems in the region.

Results

In this study, a questionnaire was filled out for 270 residents concerning identifying the village problems and needs (Table 1). The mean age of the participants was 42.7 ± 11.12 years for women and 39.11 ± 2.82 years for men; 95 people (35.2%) were male and 175 people (64.8%) were female, and 234 people (86.7%) were married and 36 people (13.3%) were single or divorced. At the end of the fourth stage, when the data were collected and interpreted, and after deleting duplicates, a total of 32 problems were jointly determined and recorded among

the villagers, and the problems and needs proposed and identified by the study participants were categorized in six areas (Table 2), among which the greatest problem of the village with 10 problems and 31.2% of the total regional problems belonged to area health (Table 3). In the next stage, with the help of the community assessment team, all problems were assessed and analyzed specifically and then the problems were prioritized. Finally, 10 problems were identified as the village's main problems, including dropping out of school, poverty and low income, lack of community support, drug peddlers, control of stray dogs, lack of recreational facilities for families, nutrition problems, physical inactivity, Non-financial support for many health costs and lack of insurance coverage for many treatment cases, and problems in residents' emergency preparedness in unexpected events and crises, were selected as the most crucial and frequent problems at the village level and entered into the matrix table. In the matrix table, each problem was assessed and scored based on the scoring criteria of problem extent, consequence intensity, and correctability. For the final summarization, scoring, and prioritization of problems, the opinions of 12 people, including community assessment team members and the village's key individuals, were used. Overall, the minimum and maximum scores of each problem were equal to 3 and 15, respectively (Table 4). According to the scores obtained from the matrix table scoring criteria, the problem of drug peddlers (15 points) and the problem of poverty and low income (14 points) were identified as the main problems at the village level.

Discussion

The present research identified 10 priority problems in Meshkin Tappeh village in the city of Bueen Zahra as drug peddlers, poverty and low income, dropping out of school, residents' emergency preparedness in unexpected events, Non-financial support for many health costs and lack of insurance coverage for many treatment cases, nutrition problems, lack of recreational facilities for families, physical inactivity, and control of stray dogs, respectively.

By comparing the study results of the present study with the results of other studies, it is found that although the problems found in these communities are more or less similar in some cases (economic, social, cultural, healthcare, health, and environment), the diversity of the proposed problems in each area in these communities is rooted in the difference in the social, economic, and cultural variables of different societies. This highlights the need for needs assessment and identification of community problems by the people of that community (20-22).

Moreover, since the current study was conducted in a village, the difference between its results and the results of studies conducted in the city appears normal (22,23).

Table 1. Demographic information of participants

Variable	Variable levels	No. (%)
Gender	Male	95 (35.2%)
	Female	175 (64.8%)
Marital status	Married	234 (86.7%)
	Single	17 (6.3%)
	Other	19 (7%)
Education	Diploma and under diploma	259 (96%)
	Associate and higher	11 (4%)

Table 2. Categorization of identified problems based on 6 different areas

Categorization of problems in different areas	Problem title
Health area	Nutrition problems- Physical inactivity- Obesity- Difficulty in residents' emergency preparation in unexpected events and crises- Depression stemming from dropping out of school- Limited days of doctor's presence at the health center- Blood pressure- Non-observance of oral and dental hygiene- Bread low quality- Keeping cattle in houses around the village.
Educational and cultural area	Dropping out of school- Lack of recreational and sports halls and facilities- Lack of library- Low level of literacy- Low level of health literacy.
Economic and employment area	Expensiveness- Poverty (low income)- Overcharging some sellers (low purchasing power)- Unemployment of gardeners and farmers due to lack of water required for agriculture.
Social and citizenship rights area	Non-financial support for many health costs and lack of insurance coverage for many treatment cases- Lack of recreational facilities for families- Lack of community support- Migration of young and working human forces to cities (lack of job opportunities).
Security area	Drug peddlers- Insecurity of some streets for children.
Municipal services area	Stray dogs- Lack of parks and green spaces- Darkness of some passages at night- Lack of urban sewage network- Lack of fruit shops- Inadequate garbage cans- Dirty and dusty alleys and passages.

Table 3. The results of categorization of identified problems based on 6 different areas

Area	Percentage
Health area	31.2
Municipal services area	21.8
Educational and cultural area	15.6
Economic and employment area	12.5
Social and citizenship rights area	12.5
Security area	6.4

Although the impact of modernity and urbanization on the people's lifestyle and behavior in the mentioned village is bold and tangible, since most of the villagers are still engaged in animal husbandry and agriculture, they face similar problems encountered by rural communities in Iran. For instance, the problem of unemployment, chosen as one of the priorities, can be observed in most of the villages in Iran, which factors such as changing people's lifestyles, shortage of agricultural water, improper planning and consideration by authorities regarding job creation, and lack of recognition and improper use of the village's capacities contribute to the high unemployment rates in this village and other villages (1).

The results of this study indicated that a considerable amount of problems proposed by the people was in economic and social areas. Since 75%-80% of a community's health is influenced by economic and social factors (23-25), we should not ignore them and the ground for solving these problems should be prepared through proper planning. In this regard, the reason for the success of some countries in improving health indices has been the establishment of strong inter-departmental communication in order to address social factors affecting health, which thereby they have been able to promote the health indices of the community and particularly meet the needs of vulnerable groups (26-28).

At the end of the study and during the final stage, assessment documents were prepared and solutions and suggestions to solve the regional priority problem were

Table 4. Matrix table for scoring and prioritizing community identified needs

Health problem title	Scoring criteria			
	Problem extent	Consequence intensity	Correctability	Score
Drug peddlers	5	5	5	15
Poverty and low income	5	5	4	14
Dropping out of school	5	5	3	13
Residents' emergency preparedness in unexpected events	4	4	4	12
Non-financial support for many health costs and lack of insurance coverage for many treatment cases	4	4	4	12
Nutrition problems	3	4	4	11
Lack of recreational facilities for families	3	3	4	10
Physical inactivity	3	3	3	9
Control of stray dogs	3	3	3	9
Lack of community support	3	3	2	8

proposed as follows: Drug addiction, this social cancer, has been one of the most crucial health and social crises in the last few decades. If some time in the past the extensive migration of young and active human forces from villages to the city established the basis for human resource poverty, today social harms, such as drug addiction, have established the basis for the annihilation of the few remaining human capitals in the villages. The most influential method to prevent addiction is community-based intervention that encompasses a broad spectrum of causes. This method includes reinforcing a reciprocal attitude within the community, such as the family institution, educational and academic institutions, and other environments in the community. This preventive approach includes all steps, such as problem determination, prioritization, intervention design, implementation, assessment, and correction for the next implementation. This intervention can be carried out by a public or non-public facilitator with the help of self-

help groups, local associations, and benefactors (29).

The relationship between health and socioeconomic status and poverty has its own complexities. A higher income leads individuals to have access to information and health care, proper nutrition and healthy water more easily, live in healthier environments, and benefit from higher quality healthcare services in case of occurring illness or health problems (2,4). In general, people's health is more dependent on social factors, such as security, nutrition, access to healthy food and water, housing and place of residence, transportation, employment, and social support, rather than on health care; thus, it seems that one of the fundamental concerns of health science policymakers and planners should always be identification and reduction of the mutual effects of poverty on health (3).

The problem of dropping out of school among school-aged students is one of the educational problems in our country, influencing many families annually. This problem is more evident in rural and less developed regions. Despite setting the scene for education for all people in the country, the phenomenon of dropping out of school in villages, particularly for girls, is still more pronounced (30).

According to the findings, the principal factor in dropping out of school among students is environmental poverty (the village's family and educational environment), which is influenced by numerous factors, such as the village's cultural beliefs, the use of male teachers, the effects of peer groups, economic poverty, parents' illiteracy, gender discrimination, student's employment at home, distance to school, and mixed schools. Considering the detrimental consequences of students' dropping out of school, including depression, non-participation in society, reduced job opportunities, unemployment and hard occupations, moral corruption and humiliation, waste of social capital, etc., this problem needs authorities' attention and consideration (31). By investigating each of these cases, solutions can be suggested to prevent this problem.

Lessons learned from previous incidents in Iran and outside it have demonstrated the importance of individual responsibility in disaster preparedness more than ever. Local people are the first individuals who must perform protective activities at the time of an accident. These individuals can help their family and neighbors before the arrival of specialists. Various studies have indicated that citizen involvement is regarded as a central factor in lowering the risk of natural disasters. A study conducted in 2015 to estimate household preparedness against disasters in Iran estimated this preparedness to be low and about 9.3%. This preparedness was better in the villagers than the residents of the cities. Therefore, placing more emphasis on training villagers in disaster prevention by health centers and cooperation of village

authorities in this regard will greatly help solve this problem (32).

Although the universal health coverage aims to increase the number and variety of services for patients, many services for special patients, palliative care, dental services, and optometry services are not covered by basic insurance in Iran. In order to realize universal coverage, policymakers should proceed with expanding infrastructures, human resources, and health services, increasing insurance coverage, expanding insurance benefits, reducing people's participation in paying expenses, using payment methods such as per capita and quality-based payment (33). On the other hand, identifying vulnerable and low-income individuals can help implement the universal health coverage plan. It is also necessary to revise the basic health services package to induce unity of direction and uniform the insurance coverage-related rules (34). This problem exists across the country and the solutions mentioned above should be considered at the country level. The problems concerning nutrition, physical inactivity, and control of stray dogs are among the cases that should be considered by the relevant sectors of the regional health network and be placed among the priorities of the annual interventions of this village.

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Competing Interests

The authors declared no conflict of interest in this study.

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