The outcomes of health care process in Iran’s rural society

Manije Eskandari1, Abbas Abbaszadeh2, Fariba Borhani3

ABSTRACT
Background: Health care systems in rural areas face numerous challenges in meeting the community’s needs and adequate attention has not been paid to this problem. The aim of this study was to describe the outcomes of health care process in rural society.

Materials and Methods: Twenty-six participants including twenty-one rural health care providers and five clients were selected according to purposive sampling. The data were collected via semi-structured individual interviews and a mini focus group. Data were analyzed by using qualitative content analysis based on methods described by Granheme and Landman.

Results: Data analysis eventually led to formation of one category of inefficiency in health care process in rural society including subcategories such as arbitrary self-therapy, slow care process, dissatisfaction with the care process, superficial caring, job stress and burn out of caregivers, and ineffective caring relationship.

Conclusion: Outcomes in health care in rural society of Iran represents inefficiency of the current health care process. These outcomes are related to the cultural and social context of rural communities and the structure of the health system. These outcomes in health care in the rural society of Iran represent impairment of the current health care process. The necessity of modifying the existing care trend with new models designed to improve the health care process is felt.

Key words: Health care, Iran, manifestations of inefficiency, outcomes, rural community

INTRODUCTION

Health is the main objective of the World Health Organization. In recent years, Rural health issues have attracted much attention, and providing rural health care has become a concern and topic for international discussions.1,2 About half of the world’s 7 billion population still lives in rural areas. The health of these societies is a major concern for nurses, midwives, other health care providers and health care systems, and governments. If half of the world’s population lives in rural areas then considerable services are needed in those places.2,3 The rural population also deserve health care and a social system that provides care. People, regardless of their location, have the right of health care services.3,4 However, rural society experience various health problems compared to their urban counterparts.3,4

The primary health care program is used as a strategy to meet the needs of rural areas across the world.2 Although the concept of primary health care has remained a way to bring “health for all,” there is little uniformity in its implementation. Most of the primary health care programs in low income countries have used community health workers who were not competent for providing health services in poor rural areas. Many of these services have not been widely appreciated, therefore they were mostly considered as unsuccessful.5,6 The quality, effectiveness, and performance of health care services are mostly related to the people in charge of providing them. Only skilled and well trained professionals are able to provide high quality health care services.6

Iran has a population of more than 75 million people, 25% of which are in rural areas according to 2011 census.7,8 After the revolution the priority of rural and underserved areas has been the basic policy. Iran’s primary health care system has been established to improve access to health care for the deprived, and reduce the gap between health consequences of urban and rural areas.9 The health house, as the most basic unit of the primary health care network, is usually the only health facility for rural areas in Iran.10 These health houses are equipped with health staff known as behvarz that are employed from local communities. Behvarz have an essential role in the primary health
care system of Iran. In the past two decades the health indicators in Iran have been significantly improved due to the execution of primary health care programs. However, the health care system is still facing many challenges in dealing with the society’s needs in rural areas. Studies show that in addition to the primary problems, the primary health care system is facing new challenges. Iran is experiencing rapid changes in all aspects of life: Lifestyle changes, demographical changes, environmental, economic, social changes, and changes in the health and disease patterns, which is due to epidemiological transition. The health system should respond to these changes to achieve its mission.

Evidence related to international studies in health and health care in rural areas suggest that there are problems and challenges in these fields. Strasser believes that despite the differences between developed and developing countries they all face challenges in terms of primary health care in rural areas. Moreover, despite the claim to the efficiency of primary health care this approach has not been actually evaluated. Sadrizadeh has mentioned some weaknesses in the primary health care system in Iran, including weak inter- and intra-sector coordination, dissatisfied clients and suppliers, limited resources, and centralized decisions. Malekafzali has also noted some other issues in Iran’s health care system such as lack of attention to primary health care in medical education, incompatibility of the health data collection system with the new technology, lack of an evidence-based decision making culture, and lack of organization and community participation in decision making. These challenges are mostly related to the structure of the health care system, and are the result of a quantitative perspective toward the issues of health care in rural areas.

There have been no studies with a qualitative approach on health care of rural areas, whereas understanding the process of health care in terms of social and cultural complexities is not possible within the proof oriented paradigm with its scientific and experimental approach. A care phenomenon is related to its surrounding social context. Therefore, the best method to understand it is to study it in its natural environment. This view is compatible with the nature-oriented approach or an interpretation which attempts to study phenomena and processes in their natural environment. Qualitative research methods have been specified as suitable methods of studying health and other areas of social researches in rural areas. The qualitative methods have the capacity to produce data that can determine the effects of social context on health. Application of qualitative approaches in primary health care research is essential when the researcher wants to focus on the experiences of the participants. Considering these viewpoints and the limited understanding of health care phenomena, due to its social and cultural complexities, this research aimed to describe the experiences of health care workers and people of the process of health care in rural areas.

**Materials and Methods**

This study was a qualitative research with content analysis and aimed to describe the process of health care consequences in rural areas of Iran in 2011-2012. Research environment was the rural areas of Arsanjan in Fars province of Iran. 26 participants were chosen including 21 health care providers (13 behvarz, 2 family physicians, 2 midwives and 4 nurses in the rural area), and 5 patients from that area. They were chosen based on the aim of the study and having experience in providing health care in rural areas (at least 2 years of experience) and the tendency to express their experience. The main participants of the study were behvarzs, who had a key role in the process of health care in rural areas, and according to need their experience was used to complete the data.

Data collection was conducted through semi-structured interview with open questions and small group discussion (one session with four nurses). The interview took place in the health houses, health care centers, and the people’s houses in rural areas. The questions started with “From your experience what are the processes of rural health care?” and “What challenges did you face in this process?”. All the interviews were written down after recording them. Each interview was analyzed before performing the next interview. The duration of the interviews was 60 min.

All the ethical considerations were followed including written consent, right to withdraw from the study, maintaining anonymity, and confidentiality. The form about the mentioned facts was given to the participants before the study and the process of the study was explained, then the forms were signed by the participants. Explanation about recording their voices during the interview were given and permission was obtained. The time and place of the interviews were agreed between them.

Data analysis was performed using qualitative content analysis approach based on the descriptive method by Granheme and Landman. This approach included open coding, classifying, and abstract construction. The interviews were read sentence by sentence and freely coded by the researcher so that all the aspects of the content were described by the respondents. Next the codes which were
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Table 1: An example of the data analysis process

<table>
<thead>
<tr>
<th>Semantic units</th>
<th>Summarized semantic units</th>
<th>Sub levels</th>
<th>Main levels</th>
</tr>
</thead>
<tbody>
<tr>
<td>Patients do not refer because they do not trust the health house</td>
<td>Patients distrust of the health house</td>
<td>Distrust in care process</td>
<td>Ineffective care relation</td>
</tr>
<tr>
<td>We tell the authorities what issues exist but they do not understand</td>
<td>Specialists not understanding the problems</td>
<td>Mutual misunderstanding</td>
<td></td>
</tr>
</tbody>
</table>

Table 2: Participant’s demographical characteristics

<table>
<thead>
<tr>
<th>Profession</th>
<th>Working place</th>
<th>Number</th>
<th>Working experience</th>
<th>Education</th>
<th>Sex</th>
</tr>
</thead>
<tbody>
<tr>
<td>Behvarz</td>
<td>Health house</td>
<td>13</td>
<td>3-20 years</td>
<td>Secondary-diploma</td>
<td>9 female 4 male</td>
</tr>
<tr>
<td>Family doctor</td>
<td>Rural health care center</td>
<td>2</td>
<td>2-3 years</td>
<td>General doctor</td>
<td>2 male</td>
</tr>
<tr>
<td>Midwife</td>
<td>Rural health care center</td>
<td>2</td>
<td>5-6 years</td>
<td>Associate</td>
<td>2 female</td>
</tr>
<tr>
<td>Nurse</td>
<td>Rural health care center</td>
<td>4</td>
<td>2-11 years</td>
<td>Bachelor</td>
<td>2 female 2 male</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Rural area patients</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number</td>
</tr>
<tr>
<td>5</td>
</tr>
</tbody>
</table>

RESULTS

The participants in this study were 26 people; including 21 people from health care team and 5 rural patients. Their demographic characteristics are given in Table 2. By analyzing the data a level was formed and named inefficiency of care process in rural area, and this level had sub-classes such as self-arbitrary treatment, slow process of care, burnout and stress, dissatisfaction with care process, superficial view to care, and ineffective care.

Self-arbitrary treatment

The results showed that self-treatment and excessive drug use were very common among rural participants.

Behvarz number 3 stated that “self-treatment can be seen very often in a way that in every house you go to you can see lots of drugs without prescriptions.”

The participants explained the reason for this was not having enough access to physicians and the inability of the health houses in providing drugs.

Participant number 17 stated that “the health house does not have medications when there is no physician and people will go to drug stores and get cold stops and painkillers.”

Furthermore, cultural factors are another reason for self-treatment.

Behvarz number 2 stated in this regard that “people demand medication due to their wrong culture and we do not have that medication, so they go to the drugstore and buy it.”

Slow process of care

The results indicated that another reason for inefficient care process is the slow process of care and this is from both the patients and the health care providers. The quality of care registration system (old registration system, recording one
problem in many places, and the many forms and frequent replacement) and behvarz’s inadequate health capabilities are the reasons for delays of health care providers.

Midwife number 5 explained that “the behvarz’s are very slow, for example they would delay a pregnant lady’s checkup by two to three hours just because it is time consuming.”

Participant number 16 stated that “he has to spend a whole day for a simple matter in the health care center since they are very slow in performing their duties.”

There is also delay from the patients’ side in seeking care.

Behvarz number 8 stated that “when a child has vaccination they delay coming to the center so we have to go to their house.”

In many treatment cases patients do not refer to the health center on time.

A nurse in the group discussion argued that “in rural areas people go to the health center very late, for example a man had chest pain for three days and did not know that the pain was related to his heart.”

Burnout and stress
Results showed that job stress is another reason for inefficient performance of health care providers. This stress is due to the high workload.

Behvarz number 6 stated that “since we have lots of work to do the pressure is very high and it influences our personal life.”

The large increase in population over time has also affected this matter.

Behvarz number 7 said that “we have to deal with all kinds of people from their birth to the day they die, and it is really frustrating.”

Other factors such as the patients’ and the authorities’ high expectations from behvarzs have influenced their stress level.

Behvarz number 10 stated that “we are trapped between the patients and the authorities, on the one hand the patients expect from us and on the other hand the authorities want us to warn them and this causes a lot of discomfort for us.”

The stress results in depression and fatigue in health care providers.

Behvarz number 13 declares that “I am tired of this job, every day there is a new problem.”

Dissatisfaction with care process
Dissatisfaction is one of the consequences of inefficient care process which can be seen among patients and care providers. Patients’ dissatisfaction has various reasons such as behvarz’s inadequate capabilities, their disability in meeting patients’ needs and providing medications, and the quality of existing services and its accessibility.

Participant number 18 stated that “the health house does not perform what they should do; they only measure people’s blood pressure and check their height and weight, which we can do ourselves, therefore we are not satisfied.”

Behvarz number 8 said “for a simple illness they refer to the center and they complain why there is no medication in the center.”

The obligation to respect the referral system is another problem.

Behvarz number 12 stated that “people are not satisfied with the referral system; they expect us to do something which we cannot since it is set by the ministry.”

Behvarz’s are also dissatisfied due to the high workload, and authorities not respecting and understanding their work.

Behvarz number 1 said: “We do all this work and no one even sees and respects it; we do not even receive any appreciation for what we do.”

The necessity of continuing follow up of the patients is another dissatisfaction factor.

Behvarz number 12 declared: “You have to continuously track the patients which is very difficult since the work is too much.”

The quality of care registration system is also a problem.

Behvarz number 13 stated: “The written work is too much and everyone is complaining about it.”

Superficial view to care
Results showed that there is a superficial view to the care process and care is not performed the way it should be in rural areas. What is being performed is a quantity based and ineffective system.
Quantity based services

The findings showed that another consequence of inefficient care process was quantity oriented and paying attention to the appearances and figurative numbers.

Number 1 behvarz stated: “As I said it’s all about quantity not quality, we should just make files, our section has become a statistical section.”

The care providers feel that the aim of the health care system is not about providing care in its actual meaning, but it is about paying attention to the appearances and extracting statistical and figurative numbers.

A nurse in the group discussion declared that “most of the work is paper work and the statistical information does not help the patient.”

Inefficient care

Most of the performed services are felt to be ineffective.

Behvarz number 10 stated: “It does not matter how much training we provide, since the people are not trained, it would not be effective.”

Behvarz number 2 said: “What kind of care is this, everything is paper work, and nothing is effective.”

Ineffective care relation

Findings showed that an effective relationship does not exist in the health care process of rural areas. Distrust and lack of understanding are the consequences of this ineffective care relationship. One reason that patients do not refer to health houses is their distrust.

Behvarz number 2 stated: “People do not trust the health house; therefore, they do not refer to it. Why don’t they trust it?”

This distrust exists among the people and care providers, and also the authorities do not trust the behvarzs.

Midwife number 5 said: “All the statistical forms are in my handwriting, I don’t trust the behvarz, and they always have problems.”

Misunderstanding also exists among people and behvarz, or between the specialist and behvarz.

Behvarz number 14 stated: “I keep explaining to the specialist that people in rural areas have problems, they cannot even provide food for their families, how can you expect them to have a sanitized bathroom, they won’t understand.”

Care providers believe that the authorities do not fully understand the issues that exist in rural areas.

Behvarz number 11 said: “A couple of people in the ministry provide programs without considering the issues, they do not know how rural areas are and they won’t listen.”

Discussion

The findings of the present study showed the inefficiency of the process of health care in rural areas. The consequences of this inefficiency can be seen in different aspects of the care process for people and care providers. One aspect of these consequences was the self-treatment of patients and using excessive medications. This matter was due to the culture of rural areas and the value of self-reliance and independence. But the main reason was not having access to care facilities, disability of health houses in providing care, and medication and the patient’s financial problems. These results were consistent with the study by Fouladbakhsh et al.[22] Arbitrary self-treatment in rural areas is associated with the structure of the health system and the cultural context of rural populations.

The findings also indicated that there was delay in the process of health care system from the staff and also from the patients. Delay from the patients was related to their not following treatment and failure to refer to the health center on time. Other reasons such as culture, economic status, and health care system’s quality and accessibility were also effective. These findings are consistent with the study by Mason that showed people in rural areas do not follow their treatment, and by the time they refer to the health center their illness has become severe. Rass also indicated in his study that people do not refer to health care center unless their illness is severe and then they need to be hospitalized. The delay in health care system from the staff was related to the traditional registration of health care system such as the huge amount of files and information that need to be recorded, the time that it takes and being inadequate. The results were consistent with the study of Mohammad-Alizadeh et al. They showed that registering all the information takes most of the health providers time and it is the main obstacle for the service quality. Overall, the results of this study indicated that both health care structure and economic and cultural factors are involved in delaying the people’s treatment follow up. However, for the care providers this delay is mainly due to the health care system structure especially the health care system registration.

According to the study, the outcome of inefficiency in the process of health care in rural areas is the stress and burnout of the staff. This stress is related to the amount
of workload. Other factors such as the patient’s and authorities’ expectations from the care providers and the contradictory expectations of the care system also influence behvarzs’ stress and depression. These results were consistent with the study of Nasiripour et al.\textsuperscript{25}. Their study also showed that many of the health care providers in rural areas had medium to high stress level due to the increase of workload and role confusion. The stress from workload was associated with the high population that each care provider had to cover compared with the standards, and the new health care programs which were added to their duties over time. Their role confusion was related to the lack of unity of commands from the health centers in rural areas.\textsuperscript{25} Lloyd et al. also noted in their study that organizational factors such as work pressure, workload, role confusion, and communication with supervisors are the predictors of social workers’ stress and exhaustion.\textsuperscript{26} On the other hand Malakouti et al. indicated in their study that despite the increase in the behvarzs’ workload during 30 years their stress and burnout has not increased.\textsuperscript{27}

The results of the present study reveal dissatisfaction on both sides of the care process. Dissatisfaction of the care providers was related to their workload. These results were consistent with the study of Arab et al. which showed that the model of overall job satisfaction of primary health care providers indicated that they are dissatisfied with their job.\textsuperscript{28} Kebriaei et al. stated in their research that the number of care providers who were dissatisfied with their job was more than the number who were satisfied. This was due to the long hours of work.\textsuperscript{29} The dissatisfaction of the patients in the present study was related to insufficient capabilities of care providers, the quality, and accessibility of services, and the obligation to comply with the referral system. These results are consistent with the study of Nasiripour et al.\textsuperscript{30} They believe that people in developing countries, such as Iran, will not be satisfied by the health care services due to the care system structure, characteristics of care providers, distribution of resources and payment methods, the mechanism of the referral system, and health information management. The results of both studies confirm the effects of the characteristics of health care providers and referral system on the people’s satisfaction with the care process.

The results showed that the care process in rural areas was superficial and due to the care system being quantity oriented and its paper works has been detached from its aim which was to improve people’s health. Most of the care providers believe that the care actions are not effective. These results were consistent with the study of Mohammad-Alizadeh et al.\textsuperscript{6} They also noted in their study that there was a common complaint among the participants about the high amount of paper work; most of the records were unnecessary and redundant, lack of coordination between different parts of a client’s case, the care providers had to record all the provided services in different parts including the patient’s file, different papers, and report tables. Some of the care providers stated that the high amount of recording was the reason that they could not provide their services efficiently and it reduced the quality their work.

Lack of provided care in relation to distrust and lack of mutual understanding in the process of care in rural areas was another outcome of the inefficient health care process. Gilson showed in his study that ensuring health and care depends on the patient’s cooperation, and care providers and health system factors.\textsuperscript{31} Interaction between caregivers and patients is the heart of health care provision. A relationship based on mutual trust can facilitate this collaboration in different levels.\textsuperscript{31} Patient’s confidence in the health care system and health care staff is a prerequisite for the effectiveness of health care system, and an important requirement for a good communication, treatment success, and acceptance. However, the reliability of health care has declined in recent decades.\textsuperscript{32} The results also showed the lack of mutual understanding among caregivers, authorities, and expert supervisors. These results were consistent with the study of Lloyd et al.\textsuperscript{26} They reported conflict between the values of managers and caregivers as a source for stress, and that care givers felt frustration due to the misunderstanding of their role by others, lack of understanding of their skills and values, and not being appreciated for what they do.\textsuperscript{26}

**Conclusion**

Overall, the findings of the present study indicated dysfunction and inefficiency in the current health care process of rural areas in Iran. This inefficiency has been found in different aspects of the care process such as the care quality, quality of interactions, people and caregivers’ satisfaction, stress and burnout, and arbitrary self-treatment. Inefficient health care process outcomes showed difficulties in the current health care system in rural areas of Iran. These consequences are rooted in the cultural and social context of rural areas, and are associated with the constituent elements of the health system such as the quality of care system registration, the ability of health care providers, the service quality and accessibility, and the referral system.

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