QUALITATIVE STUDY AMONG RURAL NURSES OF ARMENIA

Master of Public Health Thesis Project Utilizing Professional Publication Framework

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EXECUTIVE SUMMARY

The rural health care system in the world has improved during the last years but there is a still need for further improvements. Generally, rural communities have fewer hospital beds, physicians, nurses and specialists per capita as compared to urban residents. The lack of health resources in rural areas and limited access to them continues to affect the health of rural communities (1). When comparing rural residents’ measures of health to urban residents, rural people rank lower (5). There are some diseases or conditions that are more prevalent in the rural communities than in urban communities. Examples of such conditions are injuries and accidents, chronic diseases and health damaging behaviors associated with them, high infant mortality (1). The health of people in rural areas of Armenia is similar to health of rural people around the world. Mortality rates in infancy and early childhood are higher in rural communities of Armenia than in the cities.

The rural health care system in Armenia is mainly provided by nurses working in 500 health care facilities called ambulatories, medical posts or feldsher’s stations. Typically each village has one medical post, which offers a nurse-led service that includes: basic care of children and adults, antenatal care, developmental checks for infants, prescription of drugs, first aid, 24-hour emergency coverage, home visits and preventive services such as immunization and health education (16). In most villages of Armenia health care facilities are in poor physical condition. In some villages, the nurses do not use the facilities because of their inadequate condition. Some have no health facilities (14).

This exploratory qualitative research was conducted among rural nurses of three regions of Armenia. The purpose of the study was to describe rural nursing practice in Armenia and its strengths and weaknesses. The results of the study are used for making recommendations for improving rural health care in Armenia.

Twenty-one in-depth interviews were conducted from June to September of 2003. The participants of the interviews were nurses working in ambulatories without physicians. Ten of those nurses worked in villages assisted by UMCOR (United Methodists Committee on Relief). UMCOR has a MMT (Mobile Medical Team), which travels to remote villages and provides free medical treatment to village people. Nurses assisted the physicians from MMT during patient examinations. The numbers of the participants from each region are the following: six nurses from Gegharkunik, eight from Lori, and seven from Tavush. All participants were females; the median age of experience is ten years in the rural ambulatory.

The study found that the nurses are not satisfied with their working conditions and availability of equipment and supply. They are concerned about the health of rural people and their ability of getting care on time. The nurses recognize the importance of continuing education of rural nurses.

The results of this study show that the available resources in rural health care in Armenia are not adequate to provide appropriate health care to village people. The following recommendations are needed for improving rural health care: furnish and equip the ambulatories, organize continuing education for nurses, and provide health education programs for rural people.
INTRODUCTION

Background

The rural health care system has changed dramatically over the last years in the world because of the general development of health care systems and the introduction of new technology. Despite these changes, resources that are necessary for sustaining rural health care systems remain relatively insufficient in many countries and are the focus of further improvement (12). Many rural communities in the world are isolated from the mainstream of their societies and experience challenges that are typical for only rural communities (29).

In the literature “rural” is defined in many different ways. One of the definitions found in the literature is a town of less than 2,500 residents (2). This definition takes into consideration the number of residents living in the area. In general, rural areas may be differentiated not only by the number of residents but also by the economies, social structure, and demographics of the area. The literature describes specific characteristics of a rural population as “more conservative, more self-directed, less well educated, older, poorer, more likely to be self-employed or unemployed, and more likely to have acute or chronic illnesses” (5).

About 32 percent of the Armenian population live in rural areas (15). At present Armenia has 930 communities, including 47 urban, 871 rural, and 12 district communities. There are 48 cities (including Yerevan city) and 952 rural settlements in the Republic of Armenia, 8 of which belong in city communities, while the remaining 944 villages comprise the rural communities (21).

The rural population of Armenia has some of the characteristics that are typical rural populations, described in the previous section, but there are differences also. The education level in rural areas is only slightly lower than the educational level of urban areas (23). According to national data, the prevalence of poor physical development among children is
higher in rural areas. Malnutrition and vitamin deficiency varied between 9.1% in urban areas and 15% in rural areas (30).

In general, rural people experience a higher mortality rate, and have poorer health status than suburban residents. People living in rural areas are also more likely to live in poverty, a major risk factor for poor health outcomes (1). In Armenia extreme poverty is higher in rural than in urban areas (22). Rural people are more likely to be self-employed and to be involved in different types of agricultural work.

Typically rural residents in many countries see physicians less often, and usually later in the course of their illness. When comparing rural residents’ measures of health to urban residents, rural people rank lower (5). One study conducted in the United States revealed that rural residents benefited from fewer preventive-care services but sought more therapeutic care. Rural residents tended to define health in relation to how it affects work activities (2).

There are some diseases or conditions that are more prevalent in the rural communities in the world than in urban communities. Examples of maladies that could affect the health of rural people are injuries and accidents. Death and disability from injury are higher in rural areas but fewer emergency services are available. People living in rural areas experience higher rates of chronic diseases and health damaging behaviors associated with them (1; 28).

In many countries infant mortality rates are higher in rural areas than in urban areas. Mortality rates in infancy and early childhood are higher in rural communities of Armenia than in the cities. In terms of infant mortality, rural rates 53 per 1,000 exceed the urban rates of 36 per 1,000. The overall prenatal mortality in Armenia is 29 per 1,000, and again, the rates for the rural areas exceed those in the cities (14). Home deliveries are very high in some of the regions of Armenia. In one of the regions up to 40% of women deliver at their homes (14).
While the urban areas in many countries have some of the best health care institutions and attract the most skilled health care professionals, such services are not equally available in rural areas. Moreover, rural residents lack access to them. Generally, rural communities have fewer hospital beds, physicians, nurses, and specialists per capita as compared to urban residents. Additional challenges such as transportation barriers in rural areas limit the access of rural residents to health care. The lack of health resources in rural areas and limited access to them continues to affect the health of these communities (1).

Health care in rural Armenia is provided mainly by the nurses working in health care facilities called ambulatories, medical posts or *feldsher’s* stations. There are 500 medical posts or ambulatories in Armenia. Nurses are the main health care providers in rural Armenia but there are some villages where there are no nurses. There is a surprising shortage of information in the literature on the role of the rural nurses and their practice in Armenia. There are no studies that have been conducted among rural nurses. Typically each village has one medical post, which offers a nurse-led service that includes: primary care for children and adults, antenatal care, developmental checks for infants, prescription of some types of drugs, first aid, 24-hour emergency coverage, home visits and preventive services such as immunization and health education (16).

Since 1998 rural outpatient clinics in Armenia have come under the community (village) level. The village authorities were provided the opportunities to make decisions on health care provision in their villages. This subsequently gave rise to fears that rural areas were given too much authority. Still, no actions are taken by government in terms of supervision of rural health care system but this issue is at present under discussion (16).

Due to the recently imposed health reforms in Armenia, such as new payment mechanisms requiring that health care facilities cover the cost of premises, electricity, medical supplies, some of the small health facilities will close (16). Rural people do not pay
for the services they receive in the ambulatories. They do not pay because they do not have money to pay or they still expect free health care that was available in Soviet times. These problems are a barrier towards new type of health care in the country.

Services that people living in urban areas take for granted, such as timely notices or telephone calls from a health care facility, simply do not exist in some rural areas. There is lack of communication technology in rural areas in general. While urban health care personnel keep in touch with patients by telephones, e-mails or use other means of communication rural health care personnel pay home visits. Telephones and cell phones do not work in many rural areas.

In most villages of Armenia health care facilities are in poor condition. In some villages, the nurses do not use the facility because of its inadequate condition; sometimes there is no health facility in the village at all (17). The situation concerning equipment and supplies is not adequate to provide appropriate care to village residents. If present at all, medical equipment in rural areas is frequently antiquated or non-functional (17). Some villages lack potable water and even water for irrigation. Roads in and between villages and administrative regions are in bad shape, as are telephone and communication networks. Placing a call from one village to another can be a time consuming task (24).

**Literature Review**

The practice of rural nurses is often an effective and welcomed addition to the limited or absent health care system in rural areas (2). There can be no question then that rural and remote communities require confident and competent nurses: competent- to guarantee the highest quality of nursing care; confident-to guarantee reduced work stress and an enjoyment of the challenge for the nurse (6). Long and Weinert (1989), in their developing theory base of rural nursing, identified six key concepts, which help to define rural nursing (2):
1. The necessity to work within the health beliefs of the rural community.
2. Isolation and distance, which can increase autonomy while decreasing backup support.
3. Rural patients have increased self-reliance and tend to care for themselves before seeking outside help.
4. Lack of anonymity is common in rural health care and rural dwellers have fewer private areas of their lives.
5. The “insider/outsider” concepts, in which rural persons resist health care or assistance from those viewed as outsider and from agencies or public assistance programs.
6. Identifies the “old-timer/newcomer” idea and familiarity with persons is important for acceptance of services.

Nurses working in rural areas are in a close relationship with the community. High involvement and close relationships in the community are the cornerstones of rural nursing. This includes a high degree of positive visibility in the community, contributing to increased appearance of the nurse as an insider (2). Nurses are trusted by rural people. Rural people see the nurse as a person whom they can trust to meet their health care needs. Nurses in the rural areas create a closer rapport with their patients than those observed in urban areas (5). It is described in the literature that, “the rural nurse is more interested in the quality of care given to patients than to professional nursing issues”(9). These health care providers are valuable members of the communities in which they live and practice (4). In caring for underserved communities, human dignity, cultural respect, empowerment, self-determination, accountability, and advocacy are some of the operative values used by the nurse (3).

Health care services provided by nurses in the villages vary according patients needs. The nurse in a rural setting is a generalist in the true sense of word (8). The nurse may feel comfortable working in one clinical area (i.e. surgical nursing) but in the rural setting a nurse
is required to practice in areas where nurse may not feel comfortable (i.e. cardiac nursing). The age, urgency and diagnosis of patients vary. It is not unusual for the rural nurse to begin to assist in a delivery then perhaps help a person with a severe asthmatic episode (8).

The rural community is smaller and everyone knows one another. For example, it is not unusual to hear a rural nurse refer to the patient by their link to the nurse’s family. As a result, nurses frequently become emotionally attached to their patients and some patients are as close as family members (5). There is an important need to keep confidentiality.

Rural nurses must also creatively address the common rural problems directly related to health care, such as limited resources and equipment, rural economic changes and changes in rural way of life. Bigbee (1993) identifies the three most critical rural health care needs as prenatal care, self-care among the elderly and automobile accident and death prevention. Meeting these needs involves considerable patient teaching (2). The literature shows that rural people are satisfied with the treatment provided by nurses (11). They are satisfied with the procedures that are performed by rural nurses, advices, teaching and the counseling that nurses offer to people (2; 13; 27).

**PURPOSE OF THE STUDY**

A qualitative study was conducted among nurses working in rural areas of Armenia in 2003. The purpose of the study was to: 1) describe nursing practice in rural areas of Armenia; 2) describe health care provided in rural areas; 3) explore what are the major strengths and weaknesses of rural nursing; 4) serve as a base for making recommendations for improving rural health care in Armenia.

This study is aimed to answer the following research questions:

1) What is the typical nursing practice in rural health care facilities in Armenia?

2) What are the major strengths and weaknesses of rural nursing in Armenia?
3) What is the health status of the rural population from the rural nurses’ points of view?

4) What kinds of action should be taken to improve the rural health care system in Armenia?

METHODS

A qualitative research method was selected because it was most appropriate to explore the subjective inner world of the participants’ perceptions of the rural nursing. There is little known about rural nursing in Armenia, and coming to know requires a qualitative methodology (10). These data were gathered in semi-structured in-depth interviews allowing a varied and rich dataset to be collected on the subjects’ views and experiences (18). Also, the qualitative research interview was the approach considered the most appropriate method for data collection for this study because it is a highly flexible method, capable of producing data of depth, helps to gain a deeper understanding, and is one of the most widely used in organizational research (7, 10).

An in-depth interview format was used after domains and topics to be explored were identified (10). A field guide was developed, aimed to collect necessary information about the topic. Before starting interviews the field guide was pretested with two nurses working in rural areas. This procedure resulted in a number of minor refinements in a few of the interview questions. The interviews were followed by analysis and interpretation (7).

Informants

A sampling approach often used in qualitative research is systematic nonprobabilistic sampling. (10) Its “purpose is not to establish a random or representative sample drawn from a population, but rather to identify specific groups of people, who either possesses characteristics or live in circumstances relevant to the social phenomenon being studied” (10). Qualitative sampling procedures are considered as “purposeful” (19).
For this study, the sample includes twenty-one nurses working in Gegharkunik, Lori and Tavush regions. These three regions are similar to other regions of the country, and similar to each other. All three regions are located on the borders of Armenia. The three regions together have 276 villages but the study was conducted only in twenty-one of them (21). Participants in this study were nurses working alone without a physician in the health facilities of rural areas called ambulatories or medical posts. Rural nurses who work in the villages with physicians were excluded from the study. The reason for this exclusion was to explore the role of nurses in the villages without physicians since the majority of villages in Armenia are served by only nurses and it is important to describe their practice. When more than one nurse worked in a given village, only one was chosen for interview. Convenience method was used for recruiting the potential participants (whose house was close or whom was able to contact). Convenience sampling permits the specific selection of research participants who otherwise may be difficult to access (19). The eligibility criteria were not changed for recruiting all participants. Friends helped to find villages where it was possible to interview nurses. Some of the participants were recruited with the help of UMCOR (United Methodists Committee on Relief) staff.

The numbers of the participants from each region are the following: six nurses from Gegharkunik, eight from Lori, and seven from Tavush. Ten of the nurses worked in the villages, which received humanitarian aid from UMCOR in terms of free medical care provided by MMT (Mobile Medical Team). MMT consists of general practitioner, gynecologist, pediatrician and laboratory specialist. Usually it travels in the villages two or three times per months. MMT physicians examine sick people of the village and prescribe appropriate treatment. The nurses, who work in villages served by MMT, assist the physicians during patient examination.
All of the nurses interviewed were females (about 99% of nurses in Armenia are females). The experience of nurses ranged from two to thirty-three years in different health care facilities. The median number of years of experience in the ambulatories for nurses was ten years.

**Interviews**

Twenty-five nurses were contacted but four of them did not meet the inclusion criteria. After informed oral consent was given, twenty-one nurses were interviewed; nine of the interviews were conducted in the ambulatories and the rest of the interviews took place at the homes of the nurses. The eight of nurses lived close to the ambulatories and the interview was conducted in the ambulatories. Only the interviewer and the nurse were present during the interview. The interviews took place from June 2003 to September 2003. The same interviewer conducted all interviews.

A field guide for the interviews was used (Appendix 1). The interview guide consisted of four main domains (Table 1). The questions were generally developed as open-ended and were designed to cover necessary topics. The interview guide consisted of a total eighteen questions with the possibility of supplementary questions to allow clarification or deeper investigation of the issue. The interviewer was trained for conducting in-depth interviews. It is very important for the success of the interview that the interviewer is skilled at behaving in a sensitive, nonjudgmental and supportive way, so the interview is proceeding (7).

**Table 1. Domains of the field guide**

| 1. | Nursing practice and health care in rural area |
| 2. | Health needs of the population in the served area |
| 3. | The role of the nurse and available recourses |
| 4. | Recommendations for improving rural nursing |
Questions included in the field guide were aimed to explore the topics presented above. The interviewer or interviewee often spontaneously raised topics related to these questions. Notes were taken during the interviews, and transcribed after each interview. The interviews were in Armenian and later were translated into English. The interviews lasted 40-65 minutes.

ETHICAL CONSIDERATIONS

The research protocol was reviewed and approved by the Institutional Review Board of the American University of Armenia for compliance with accepted standards and safeguards of human subjects. Before conducting the in-depth interviews, an oral consent form was presented to the nurses (Appendix 2). The consent form presented the necessary details about the study and described the study process and the nurses’ roles in the study. Assurance was provided that confidentiality and anonymity for the subjects would be protected. Subjects did not have any benefit from participation. They had right to withdraw from the study at any stage. Notes were taken during the in-depth interviews.

RESULTS

Data were manually analyzed. Themes were identified inductively through the systematic analysis of transcripts. When the themes were developed, the transcripts were grouped together by theme. The transcribed interviews were read several times in order to get general picture of what the respondents said. The table 2 presents the topics that will be discussed in the results section.

Table 2 Topics identified during the analysis

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<td>Main responsibilities</td>
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1. Typical working day for the nurse in the village

The first question that the nurses were asked was to describe their usual working day in the village. The purpose of asking this question was to gain an understanding of the workload of rural nurses. Although each day was likely to be different, the question was found to be a good way of encouraging respondents to describe their work and to start the conversation.

Most of the nurses mentioned that they do not have planned activities in their workplace. Some days the nurse starts the work by making home visits or seeing patients at her home. Only a few of nurses mentioned a working schedule. Not every nurse went to the ambulatories everyday.

“My usual working days start differently. If patients have problems I start looking them at their homes or at my home or at ambulatory.”

“I do not go to the ambulatory every day. I usually go 2-3 times per week but it does not mean that I am not available for village people.”

“Usually I come to the ambulatory every day around 10 o’clock. If patients have injections or need some kind of help they come to the ambulatory. Then I go for lunch around 12 o’clock and I start to pay home visits. Then I come to the ambulatory around 4 pm and stay till 5 pm.”
2. **Place for providing health care and conditions in the health care facilities**

The homes of the nurses or the patients were the places where most of the care was provided. People come to the nurses’ homes when they feel bad no matter the time of the day. Almost all nurses mentioned that either patients came to their homes, or the nurse goes to the patient’s home. The ambulatory was used by most of the nurses as a place for vaccination of children. Only one nurse mentioned the regular schedule when the ambulatory was open and the village people came to the ambulatory for help. The nurses justified not using the ambulatories because they are in very bad physical conditions, are not equipped or furnished or the conditions of the ambulatories did not allow for provisions of safe health care. A few of the nurses who worked in the villages assisted by UMCOR said that currently UMCOR helped them to renovate some of the ambulatories.

“**Village people can call us in the middle of the night and we should go and help them.**”

“**Mainly I serve people at my home or they call me for home visit because we do not have ambulatory in the village**”.

“**...if the rain comes the roof allows rain to flow inside of the ambulatory**”.

The majority of the nurses said that ambulatories are closed in the winter because there is no way to heat them. Also, they mentioned that some of the ambulatories do not even have electricity. Most respondents said that there is no running water in the ambulatory, as well. The nurses have to carry in. Some of nurses said that they do not have ambulatories in their villages and people always come to their homes. They complained that it is not possible to provide good care at nurse’s home or provide private environment for the patient.

“The ambulatory is a room in the club building and it is not convenient for the ambulatory. We have very old furniture here that I got from the previous nurse and some pieces I asked for from the school director.”

“In the summer time it is possible to work there but in the fall and winter time it is even impossible to make vaccination. It is very cold in the building and I cannot go and work in the ambulatory.”

“Before there was an old ambulatory in the village with equipment but currently the ambulatory is destroyed and nothing is there.”
3. Availability of equipment and medical supply

On the question “How would you evaluate the equipment and supplies available at your ambulatory?” almost all nurses answered that they do not have anything in the ambulatories that will allow them to provide adequate health care to village people. Some of the nurses mentioned that what they have in the ambulatory is very old and not useful. The only thing that they have is the old blood pressure cuff, which does not allow an accurate blood pressure measure. The nurses said that a blood pressure cuff is the most widely used equipment in the village. At least five or seven people each day come to the nurse for measuring their blood pressure.

The nurses were satisfied with the availability of the supply that is needed for immunization of the children. The supply was obtained from the regional sanitarian—epidemiologic station, which is responsible for immunizations in the region.

“As I said I do not have anything on hand to help people—no medications, no medical supplies. I do not have blood pressure cuff or thermometer.”

“The ambulatory does not have things that are necessary for the nurse to provide good care.”

“Actually I do not have too many things on hand to help people. I mainly use my personal medications and equipment. I use my own blood pressure cuff and thermometer because the blood pressure cuff that ambulatory has does not work properly.”

Some of the nurses from the villages served by UMCOR mentioned that they received blood pressure cuffs and thermometer from UMCOR, but they do not have medications, and that is very important for the village nurse, too. Almost all nurses mentioned the importance of medications in the village. All nurses said that they feel confident to help when they have medications on hand; otherwise they feel powerless and cannot help the patients. All nurses mentioned the importance to allow nurses working in the villages to prescribe medications because if the patient needs medication they cannot go to the physician for a prescription. This is because there are no physicians in the village or the patients need the medication immediately. The nurses named some of the medications that nurses should be able to
prescribe such as pain medications, antipyretics, antihypertensive medications and some types of widely used antibiotics.

This problem somehow was solved in the villages where the MMT provided help to village people. MMT physicians prescribed and gave free medications to sick people, and the nurses working in these villages helped to administer the medication. But nurses from these village also mentioned that it is very important to allow nurses to prescribe some types of medications because MMT comes to their village only twice per month and it is not enough. It is very hard for the patient with severe pain to wait for fifteen days until MMT comes. Some of the nurses mentioned the ways to deal with this problem. They recommended organizing trainings for nurses that will allow them to be able correctly prescribe above-mentioned types of medications.

“I have problems when people call me for help, I go but patients do not have any of medications. What can I do without medications?”

“I do not have first aid materials and medications.”

“For example, patient comes to me and says that “I have headache or toothache”, for such simple thing should I send them to the doctor or should I give medication to the patient and patient goes home with no pain? If I say patient with headache or toothache to see a doctor, anyway the patient will not go to see a doctor. Because it is far from village and it costs money. People do not go to physician even if they have very severe problems and you cannot imagine that they will go if they have toothache.”

“I need mainly medication…”

The nurses mentioned that in the conditions that they work it is necessary that village nurse should be allowed to prescribe medication. Almost all nurses said that they need medication for providing appropriate care to village people. One of the participants said, “What could I do without medications?” Most of the villages do not have pharmacies and village people have to obtain it from the pharmacies of the closest towns.

“There was a case in my village when the patient was very sick, he had very severe pneumonia but he did not have money. UMCOR physicians should come after twelve days and during these twelve days the patient condition would get worse. I prescribed antibiotics and administered injections.”

“It is very important to know what kind of medications will be helpful.”
“Antihypertensive drugs, analgesics, antipyretics. I need medications for helping people. I just need these medications no more.”

“I need medication for providing first aid.”

4. Main responsibilities of village nurse

Almost all nurses mentioned that they are responsible for all types of health care activities in the villages. They help everyone with health problems; the top four responsibilities for nurses are immunizations, administering injections, measuring blood pressure and provision of first aid. The majority of the nurses mentioned administering injections as their main responsibility. Nurses said that almost everyday they have patient who needs some type of injections. Nurses working in the villages served by MMT mentioned that now the number of patients needing injections has increased. MMT physicians prescribe injections and the nurses administer them.

Disposal syringes were used for making injections, which patients obtained from the closest pharmacy. But often these syringes were used several times for injecting the same patient. None of the nurses mentioned about their assistance in administering medications in other ways, except injections. Oral administration of medications was viewed as not “helpful” mean of medication administration. Some of the nurses said that medications administered by different types of injections helps patient better than oral pills. The nurses mentioned that some of the patients come to the ambulatory or their homes for injections. If the patient is not able the nurse goes to the patient’s home for administering injections.

“I provide every type of medical help for everyone in the village. Mainly I provide first aid for all types of problems.”

“It is already a week when I go to the patient’s home every night at 4 o’clock for injecting Penicillin.”

“Everyone comes to me with every type of health problems.”

The nurses working in the villages served by MMT mention as one of their responsibilities assisting physicians during patient check-up.

“Now my responsibilities are wider because I assist UMCOR physicians.”
5. Population served by nurses working in the villages

Almost all nurses mentioned that they take care of all people living in their villages. Nurses who serve more than one village mentioned that they take care of patients living out of their villages. But some of them said that it is not appropriate when one nurse serves more than one village because it is not good either for nurse or village people. In this case, village people are not be able to get adequate care on time and the nurses are not able to provide that care because there is no transportation between villages, and traveling is a problem for nurses and for village residents as well.

“I serve to everyone in the village- children, adults. I am the only nurse working in this village.”

“I serve all people living in my village and even I serve people living out of my village. But that is not good…”

“I serve everyone in the village. They know me and know that I am nurse and they come to me…. “

The majority of the nurses mentioned that the number of the patients varies everyday. On average they serve about four to five patients per day. There are more patients in the winter than in the summer. They explained this difference as in the summer the village people have to be involved in agricultural work in the gardens and generally do not have time to take care of themselves. Other nurses said that in the winter diseases become worse and poor living conditions in the village contributes to that. The nurses said that not everyone in the village could afford to heat their houses in the winter. There were nurses who mentioned that they sometimes have more than ten patients per day in the winter.

“Ohh, at least ten people in the winter. Some of the patients require bad care and are not able to get out of it and I have to pay home visits ... Typically four to six patients ...”

“It depends. Sometimes 4-5 patients per day…”

“If I consider those who want me to measure their blood pressure I have more than ten patients per day”
Most of the nurses who work in the villages served by MMT said that MMT physicians see on average twenty-twenty-five patients each day with various problems when day visit the village.

“They see about twenty-twenty-five patients per visit.”

6. General health characteristics of village people

Figure 1 presents the most prevalent diseases among adult rural population of villages mentioned by nurses. The most prevalent is hypertension. There are many patients in the villages. The proportion of sick patients in the villages is high compared to the total village population. People suffer from a variety of health problems. Some of the nurses said that almost everyone or 80% of village residents are sick with some type of diseases or have some type of complaint.

“People are very sick. There are many patients who need treatment.”

“Almost everyone over 45-50 have high blood pressure about 170–190.”

“Too many cases of bronchial asthma...we have many cardiac patients.”

“Bronchitis, bronchial asthma...currently there are many cases of strokes, myocardial infarctions...”

Some of the nurses said that the most common problems among children in the villages are diarrhea, flu and cough. The majority of the nurses explain many cases of diarrhea among village children due to poor quality of drinking water, or children eating unclean and unwashed fruits and vegetables.

“…the quality of the water used in the village is bad.”

“...children eat not clean foods or drink not clean water and they get diarrhea. This is very common. Children also eat not clean fruits and vegetables...”
Most of the nurses explain that there are so many cases of diseases in the village because village people do not go to physicians on time. Usually they go when there is little could be done for treating the diseases. Usually physicians treat complications. Many of the nurses explain that obtaining late medical care by village people is due to financial problems. Nurses from MMT served villages were very positive about the help of MMT and how necessary it is to treat people who are not able to pay.

7. Knowledge of village people on health education/promotion

In general, most of the nurses evaluated the knowledge of people on health education/promotion as low. The nurses report that people lack knowledge about prevention of illnesses and improving their health. Almost all nurses mentioned that people do not know even the very basics about nutrition.

The majority of the nurses recommend teaching village people about nutrition and childcare. They mentioned that parents are not educated about childcare and they do not know how to take good care of their children. The nurses justify their choice of health topics saying that nutrition is the most important factor determining the health of people and
children are the future of the country. Also, few of the nurses from UMCOR team reported that an Armenian kitchen is very salty and fatty, and it is well known that salt and fat are risk factors for hypertension and cardiac diseases. Some of the nurses mentioned that village people do not have time for thinking about their health. They are busy earning money for their living.

“They do not know what to eat and what to do…”

“…they are not well informed what they can do for preventing diseases or improving their health.”

“……parents do not know how to take care of their children.”

“It is very important to teach about nutrition, hygiene and childcare.”

Most of the nurses found that it is very important to help sick people because they need help the most. They said that they give advices to sick people on how to take care of themselves when they come to the nurse. The nurses did not mention any health education activities that healthy people are involved.

8. Strengths and weaknesses of the rural nurses

Most of the nurses said that they are confident in giving different types of injections. Injections are the most popular way of administering medications in the villages. Some of the nurses report that they are proficient in taking care of patients with prevalent diseases. Thus, taking care of a patient with hypertension is easier because there are lots of cases of hypertension and nurses know how to deal with that. The nurses describe taking care of patient with hypertension as giving antihypertensive medications, recommending special herb-teas that will low the blood pressure and putting feet in the warm water.

Few of the nurses explained that they are weak of taking care of patients with an unknown medical diagnosis. It is better for the nurse to know the medical diagnosis of the patient and then start care otherwise it is very difficult.

“I am very well from giving different types of injections.”
“I am strong in taking care of people with hypertension....”

Most of the nurses said that they feel “weak” [not being able to help] when they do not have anything on hand to help the patient. Mainly they mean medications. Also, some of the nurses explained that they feel “weak” when they have to assist during delivery. Usually in the villages nurses try to refer deliveries to the nearest clinic but it is not always possible either because of transportation problem or it is too late. The nearest clinic for most of the villages is about fifteen to twenty kilometers far and it takes about forty-five to sixty minutes to get the clinic, generally because the roads are in very bad conditions. Some of the roads are even closed from the fall until the first months of spring because of snow.

“If I have necessary medication I’ll help...”

“I feel weak when I have to assist during delivery...”

9. Educational needs of the rural nurses

Almost all nurses mentioned the importance of continuing education of rural nurses. The nurses assisted by UMCOR said that UMCOR organized training courses for them, which was very helpful and supported them in providing improved care to village people. A few of other nurses reported that they participated in some trainings organized by UNICEF about vaccination, however there were nurses who have never participated in any trainings since graduation from the nursing school. Most of the nurses in both groups express desire to participate in the trainings about specific diseases such as liver, kidney, heart diseases, etc. The majority of the nurses from UMCOR assisted villages and the other villages mentioned the importance of training on medication prescription. Almost all nurses find that to be able to prescribe medication is not only important but also necessary taking into consideration the circumstances of isolated villages. The majority of nurses mentioned the importance of the
professional literature, which could inform nurses about new achievements of medicine and nursing.

“...I would like to participate in training from time to time”

“I would like to learn more about gastric ulcer, diabetes, kidney problems.”

“The training that were organized by UMCOR helped me a lot.”

10. Salary situation

All nurses laughed when the interviewer asked them to describe the current salary situation. All nurses mentioned that the salary is very low. Some of them mentioned that they couldn’t say that “it is payment for their work” because only “waking once in the middle of the night” in one month costs more than what they receive as a salary. Most of the nurses mentioned that they had not received salary for last few months. The majority of the nurses said that the salary is not enough even for meeting very simple needs.

“...not enough even for paying my electricity bills ....”

“I spend all my days and nights doing my work but this is even not enough for buying very simple things. Moreover, I received my last salary three months ago.”

“This is nothing compared with the efforts that I put in my work.”

“...actually it is few drams and I cannot say that I work because I receive salary.”

11. Enjoyment and discomforts of the nurse work in rural setting

Most of the nurses said that although it is very hard to work as a nurse in the villages, it is a very rewarding job. They feel proud that they can help people when they need help. Some of the nurses said that their job in the village is very responsible. They enjoy of the fact that they are helpful and village people trust them. A few nurses said that they are somehow linked to the village people as friends, neighbors, classmates or relatives.

“I like it very much, it does not matter that it is so hard to work in the village as a nurse. If I did not like my job I could not survive as a nurse and I have already quit it.”
The feeling that you can at least not completely but even partially to help people and the understanding that people need you makes you proud of yourself.

Most of the nurses mentioned that they do not like their job when the patient comes to them and they do not have necessary medications or supply to help the patient. Few of the nurses reported that they did not feel comfortable when they have lots of to do during very short period of time. One of the nurses said that she does not like to pay home visits because houses of her village are far apart “My salary even is not enough to buy shoes for walking so long distances for paying home visits.”

“I do not like when I have to many calls for home visits during very short period of time.”
“Everything I do by my self It is very hard.”

12. Suggestion/recommendations for improving rural health care

The majority of nurses mentioned the need for a well-furnished and convenient ambulatory. They think that it is necessary for the nurse to work in an improved facility, and it is good for patients to be served in a nice and comfortable atmosphere. Nurses working in the village without ambulatories, expressed desire to have ambulatories where village people can get help.

Almost all nurses mentioned that improving rural health care it is necessary to provide nurses with necessary medical supplies and materials for providing help to village people. The nurses name some of the necessary materials as medications, thermometers, blood pressure cuffs, dressing materials, etc. Some of the nurses also mentioned about increasing the salaries, which could motivate nurses to work better. Few of the nurses recommend having at least one physician in the ambulatory, which could diagnose the diseases and prescribe medications.

“If the nurses working in rural areas were provided adequate amount of supplies and medications and get good salary appropriate with the efforts that they put in their work…”

“…for making better health care in the villages to have at least one doctor in the ambulatory…”
“If the ambulatory will be equipped with necessary supplies and equipment it will be better for nurses to work.”

DISCUSSION

The purpose of this study was to describe rural nursing practice in Armenia, and to make recommendations to improve rural health care. The responses of nurses from three regions were similar in terms of the needs and the information they provided. There were no specific differences identified between the three regions in terms of provision of health care. The nurses working in the villages assisted by UMCOR reported differences in terms of availability of medical supplies and equipment. The health care needs in all three regions were similar. Most of the nurses from the three regions were unsatisfied with their working conditions. They complained of the ambulatories, which are in very bad condition and are not adequately furnished or equipped. The available resources and working conditions do not allow rural nurses to provide adequate health care to village people. The ambulatories do not have electricity and the majority of the ambulatories do not have running water. Most of the villages where the interviews took place with ambulatories they were most recently renovated ten or twelve years ago.

The complaints of nurses have an objective base. According to the recent reforms of the health care system, health care facilities should operate from health care services revenues. Many ambulatories cannot pay their electricity bills because they do not have revenues. Having no revenues does not mean that there are no patients served in the villages. The high unemployment level in rural areas and high poverty rates keep people from paying for health services. Thus, the recent reforms are an issue for rural health care.

The fact that most part of the health care in rural areas is provided either in the nurse’s or the patient’s house is an issue. Arranging an adequate environment for care or performing
some procedures in homes is not always possible. The issues include patient privacy, prevention of infections, quality of care could suffer from home-provided care in some cases.

The health condition of the people from the villages of the three regions were similar. Village people of these regions are mainly involved in agricultural work. The prevalent diseases were similar for the three regions. The most prevalent health condition mentioned by the nurses from three regions was hypertension.

The nurses were concerned about the health of village people and the ability of village people to get adequate truly care on time. When ill, most of the people did not go to health professionals for help because of financial issues. Generally, people cannot afford to get help on time because either the cost of the services are too high compared with average income of families, or the transportation is difficult and costly. It should be noted that most patients in Armenia (91% in 1999) are obliged to make “informal” payments either in cash or in the form of food, especially in rural areas (30). People go to the health professional when they have very severe health problems otherwise they are concerned with more what they perceive as “serious” [earning money] things than treatment and prevention. Many curable diseases, prevalent in the villages develop potentially life-threatening complications.

The village people lack knowledge about health promotion and disease prevention. Mainly they get very late therapeutic care and little preventive care. Almost no actions are taken by village people to improve their health or to prevent diseases. It is well known that prevention is always better than treatment. The only preventive services provided by nurses in the villages is immunization and minimal counseling. Most of the diseases prevalent in the villages such as hypertension, cardiac problems require considerable patient teaching. The nurses do not perceive their role as a teacher. The most important role of a nurse in the rural setting perceived by nurses is a treating of sick patients.
The fact that nurses are not prepared and not allowed to prescribe medicine is very concerning. In reality, nurses give medications to the patients because they are the only professional who has some knowledge about medications. The medical assistance is very limited in some of the rural areas. Village people anyway go to the nurse for pain or for other types of medications. The suggestions of the nurses about educating rural nurses to prescribe some specific groups of medications such as pain medications, antipyretics, antihypertensives, widely used antibiotics can be one of the options to deal with this issue.

Lack of continuing education and professional literature is a major problem for the rural health care system. Rural nurses who assume as variety of responsibilities need to be continuously educated and prepared. The literature that some of the nurses use is very old. The majority of the nurses who participated in the study completed one or two trainings organized by humanitarian organizations. There is no systematic continuous education for the rural nurses.

Finally, the salary that nurses receive is very low compared with the monthly income that is needed in Armenia to cover living expenses. All nurses had other sources of income such as farming. To achieve high quality care it is very important to compensate the nurses’ efforts with an adequate salary. Rural nurses are the only health professional in rural Armenia and it is necessary to improve their working conditions and help them to help others.

As a summary, irrespective of the hard working conditions existing in the rural health care system of Armenia, rural nurses are always ready to help village people and they do their best for improving the health of rural communities.

LIMITATIONS

Limitations of the study are typical for qualitative research in general, especially the subjectivity of the data. An over-reliance on people’s interpretations of phenomena and
events related to their own social reality is also problematic. It is possible that people will misinterpret those phenomena and events (20). The interviews and the analysis of the data were done by one researcher. The study was conducted in twenty-one villages of three regions of the Armenia and the findings cannot be generalized to all of rural nurses in Armenia.

CONCLUSION

This study is the first qualitative study conducted among rural nurses in Armenia that looked at nursing practice in the rural areas. The study found that the available resources and the working conditions of nurses do not allow them to provide adequate health care in rural communities. It is very important to take immediate action to improve working conditions of nurses and the health care system in rural areas of Armenia. The results of the study could be used for supporting rural nurses with training, supplies and equipment, which will enable them to provide adequate health care to rural population.

RECOMMENDATIONS

Considering the results of qualitative study among rural nurses of Armenia the following is recommended:

1. To provide villages with adequately furnished and equipped ambulatories, which will enhance the provision of high quality of health care in rural areas of Armenia.
2. To conduct need assessment of rural population for organizing educational program for nurses according to the needs of served population.
3. To organize continuing education for rural nurses about new achievements in medicine, health and nursing, and to provide rural nurses with updated professional literature.
4. To conduct further qualitative and quantitative research among rural populations about specific health topics for obtaining information about their knowledge on specific health topic.

5. To organize health educational programs for rural residents for several health topics such as nutrition, childcare and disease prevention.

6. To distribute health educational materials to village people regarding nutrition and childcare.
REFERENCE:


30. World Health Organization, National Health Information Analytical Centre, Ministry of Health of Armenia. Highlights on Health in Armenia: January 2001
APPENDIX 1. Field guide

*Title of the study*: Nursing Practice in Rural Areas of Armenia

**In-depth Interview Guide**

**Topic of Interview:**

**Date of Interview:**

**Total years of nursing experience:**

**Number years in current position:**

**Location:**

**Language:** (not clear what this means? Please, clarify)

**Description of the participant and the setting.**

**Nursing Practice and Health care in rural area**

1. Describe your usual day's work in the village. *Probe.* What are your major responsibilities?

2. Tell me about the ambulatory (age of facility; funding; services, staffing, and frequency of visit by MD?)

3. What types of medical/nursing interventions are provided in the ambulatory?
   - Tell me what you enjoy most about the job?
   - Tell me what you enjoy least about the job?

**Health Needs of the Population in the Served Area**

4. Which population do you serve? On average, how many patients per day/month/year do you usually see? How would you generally characterise the health status of the population? What are the most common health problems?

5. What are the most common diseases/health conditions encountered in the following population groups in your area:
   – children under 7
   – pregnant/reproductive age women
   – adults (men and women)

6. In your opinion, what contributes to the development and distribution of these diseases?
7. Which of these diseases/health conditions are you able to provide adequate and complete health care at your facility (without referring to other facilities)?

8. Which diseases/health conditions do you refer patients to physicians, hospitals, or other health facilities? *Probe:* Which are the most common health problems, which you refer? Do patients follow through and accept the referrals?

9. How will you evaluate the knowledge of people about health education/health promotion and disease prevention? In your opinion, is there a need to educate people about health education/health promotion and disease prevention? If so, what topics would you recommend?

**The role of the nurse and available recourses**

10. Discuss your preparation to provide medical/nursing assistance. Describe your nursing strengths. Discuss your nursing weaknesses.

11. What knowledge and skills do you think are important for your practice to be able to provide adequate care given that there are no physicians at your health care facility and you are the only health care providers in your area? Why is this knowledge or skills/knowledge important? In what areas do you believe you would benefit from more knowledge?

12. What knowledge and skills do you think are important for your practice to be able to provide appropriate care given the health conditions of the patients you have?

13. In your opinion, what do you need in order to provide adequate care to patients? *Probe:* Would you like to participate in additional educational offerings? *Probe:* In which areas/fields would you like training to be?

14. How would you evaluate the equipment and supplies available at your ambulatory? *Probe* Is it possible to provide adequate care for the mentioned diseases/areas given the condition of the equipment/supplies in your ambulatory?

15. How would you describe the current salary situation? *Probe:* Is it adequate for the amount of effort that you put into the job?

16. What kind of assistance do you need in order to provide better health care to people? *Probe* What additional help do you need?

17. If something could be improved about your job, what would it be? *Probe:* Tell me more.

18. **What suggestions/recommendations do you have for improving nursing practice in rural areas?**

Thank you very much.
Հիմնագիտական անվտանգություն
Առարկային գործունեություն
Հայաստանի զարգացման ծրագիրի փաստաթղթեր

Հարցազրույցի նպատակներ

Հարցազրույցի ծնունդ:
Առարկային գործունեություն
Հարցազրույցի սարքավորում:
Առարկային գործունեություն
Սարքավորում փոփոխ (ավելացած նյութեր).
Զավեր:
Նախագիծ:
Սարքավորում բոլոր նյութերի և էներգետիկի նիշապատման

Առաջնորդներ և առաջնորդականության դերեր գլխավորում համար

1. Առաջնորդներ դեր տեղակայված պաշտպանության օրյա գլխավոր: Նախագահ
Որպես ՀՀ կառավարության պաշտպանության ագուստ հարցազրույցի նախագահները:

2. Առաջնորդ ավագինգության մարմին որոշում պետական ծրագիրը տեղիվանդակություն է մականուն-
համակարգչային սարքի, ծանոթական կողմեր, անձատուցի և պետական արդյունք համակարգչային համակարգչային և միջազգային հատկություններ:

3. Գլխավոր պետական գործունեության գլխավոր: Որպես ՀՀ կառավարության պաշտպա
արբականություն:
- Առաջնորդ հենց է ձեռք բերված փոփոխ սարքի արդյունք ավագինգության մեջ;
- Առաջնորդ հենց է ձեռք բերված գլխավոր փոփոխ սարքի ավագինգության մեջ:

Աստվածային տարբեր ազդեցությունների ազդեցությանական կարևորություն

4. Գլխավոր պետական գործունեության հետ ազդեցություն: Մինչև այժմ, բացի գլխավոր պետ
միջազգային գործունեության օրինակ/ամենա/առավազ/միջազգային յուրաքանչյուր զարգացման ավագինգություն, և
այդպիսով պետական և միջազգային ազդեցությունների ազդեցության ստացումը
Առաջնորդ մեծ աշխատանքերի համար ազդեցություն պատմություն վերականգնել:

5. Առաջնորդ են առաջնորդականեր համայնքի հետազոտություններ/առաջնորդություն կարևորության դեր ավագինգության տեսական ռուսական ազդեցությունների ճնշումը հայտնելու:
- որպես 7 տարիկան իրենց թիվհավանություն;
- որպես միջազգային իրենց թիվհավանություն
- որպես միջազգային իրենց թիվհավանություն (50-ից բարձր)։

6. Առաջնորդ են առաջնորդական համայնքի հետազոտություն/առաջնորդություն կարևորության դեր ավագինգության տեսական ռուսական ազդեցությունների ճնշումը հայտնելու:

7. Որ հետազոտություններից մեկը առաջնորդներ համար ազդեցություն կարևորության դեր ավագինգության ազդեցություն գործունեության (առավազ հետազոտություն երկու բոլոր հետազոտությունների նոնցուց)
Hello, I am Lusine Poghosyan. I am a student in the Public Health Program at the American University of Armenia. You are invited to participate in a research study: “Nursing Practice in Rural areas of Armenia”. The purpose of this study is to describe the nursing practice in the rural areas of Armenia.

You have been included in the project because you are a nurse who works in a rural area and provide health care to village people. You are asked to participate in the interview, which will take about 1-1.5 hours. Your participation is your voluntary choice. Please, feel comfortable in answering the questions. You may not answer the questions that seem sensitive or uncomfortable to you and skip those questions. Any information that you provide will be kept confidential. Your name or name of your village will not appear in the report. Only aggregate data will be presented in the report. Any other information that may identify your self is not required.

There is no risk for you as a participant in this study. You will not receive any monetary or other benefit from the participation. Your participation and the information that you will provide is valuable for our study.

You have the right not to participate or drop out from the interview anytime. Whether or not you will participate in the interview will not affect on you or on your job. You are welcomed to ask any questions about the study or about the interview. If you do not mind I can take notes during the interview in order not to loose any information.

Is this information clear to you or you need additional explanations? If you believe that you have not been treated fairly or have been hurt by joining the study you should contact the American University of Armenia Dr. Yelena Amirkhanyan (51 25 68) and Dr. Michael Thompson (3741) 51 25 92.

Thank you very much for your participation.

Interviewer Signature ____________                                        Date ______________