

Lived experiences of pediatric oncology nurses in Armenia: A Qualitative Study

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By

MPH student Tamara Simonyan

Advising team:

Tsovinar Harutyunyan MPH, PhD

Dzovinar Melkom Melkomian DVM, MPH, MBA

Mark M. McRiley BSN, MPH, PhD (c)

Gerald and Patricia Turpanjian School of Public Health

American University of Armenia

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LIST OF ABBREVIATIONS

LMIC- Low and/or Middle Income Countries

HIC- High Income Countries

RN- Registered Nurse

SIOP- The International Society of Pediatric Oncology

PODC- Pediatric Oncology in Developing Countries Committee

YSMU- The Yerevan State Medical University

IRB- Institutional Review Board

WHO-World Health Organization

AMD-Armenian drams

Abstract

Childhood cancer is a global health issue worldwide. Annually about 200,000 children and adolescents are diagnosed with cancer. Approximately 80% of them live in resource limited countries. Childhood cancer treatment needs a multidisciplinary medical team, including physicians, nurses, pharmacists, social workers, and psychologists. The role of pediatric oncology nurses in the treatment process is fundamental. However, in less developed countries the provision of quality nursing care to pediatric patients is impeded by a number of limitations. The aim of the current study was to explore the experiences and needs and challenges of nurses working in pediatric oncology departments in Armenia.

Twenty-two in-depth interviews were conducted among pediatric oncology nurses and physicians from the National Center of Oncology, Hematology Center, and “Muratsan” University Hospital. Combined inductive/deductive approach was used to analyze the data.

The interviews revealed that nurses felt like they had a unique nursing specialty, and although many of them described their job as “difficult and stressful”, they stayed committed to their work and their patients. We found that even the basic requirements for the quality pediatric oncology nursing care in low and middle income countries set forth by Pediatric Oncology in Developing Countries (PODC) Committee is not seem to be met in Armenia. The nurses reported having limited opportunities for extending the scope of their knowledge and skills in pediatric oncology specialty. Also, many of them were dissatisfied with their working conditions and availability of drugs, equipment, and resources necessary for their practice. None of the nurses were present at the time of diagnosis or were involved in decision making process related to care. They were overloaded with the large number of patients and often felt overwhelmed and exhausted.

However, all nurses reported having excellent relationships with other nurses and physicians at the

department. According to them, the positive and collegial atmosphere in the department helped them to overcome the difficulties.

Dying process and deaths of children were described as the most stressful experience in nurses' practice. Despite having opportunities for getting psychological counseling from the specialists at the hospitals, few participants have ever approached them for help. Most of the nurses in our study saw the coping process as their personal responsibility. Positive coping was enhanced by the years of experience, good working environment and relationships with colleagues. Based on the study results we recommend expanding the opportunities for pediatric oncology nurses to enhance their professional knowledge and skills through specialty trainings. The current patient to nurse ratios in pediatric oncology departments should be adjusted to avoid overload and exhaustion among nurses, and prevent possible deterioration in the quality of provided services. Finding ways to engage nurses into seeking professional help from psychologists could help them to effectively cope with stress.

Introduction

Childhood Cancer

Childhood cancer is a major health issue worldwide¹. About 200,000 children and adolescents are diagnosed with cancer annually. Approximately 80% of them live in low- and middle- income countries (LMIC)^{1,2}. While in Europe and North America childhood cancers comprise less than 0.5% of the total cancer incidence, in developing countries they contribute to about 2% of all cancers^{2,3}.

Globally, the average five- years survival rate among children with cancer is approximately 80%⁴. Yet approximately 100, 000 children die from cancer before 15 years of age every year, with the vast majority of deaths occurring in resource-limited countries^{1,5}. Cancer is the second cause of childhood mortality in low and middle income countries⁵.

Most common types of cancer in children and adolescents are blood cell cancers (leukemia, 37%), brain tumors (25%), and lymphomas (24%). Although the risk factors of childhood cancer include genetic (5-15%) and environmental factors (5%), about 75% to 90% of causes of childhood cancers are unknown⁶. Some studies have shown that several genetic syndromes (neurofibromatosis, Gorlin and Li-Fraumeni syndromes), paternal smoking and history of receiving chemotherapy or exposure to ionizing radiation are risk factors associated with cancers. Ongoing studies are investigating the impact of early-life infections, maternal diet during pregnancy, use of contraceptives, exposure to environmental toxins and others agents as risk factors for developing childhood cancer^{7,8}.

Pediatric Cancer Care

The range of treatments completed by children with cancer includes chemotherapy, surgery, radiation therapy, bone marrow and peripheral stem-cell treatment⁹. The precise treatment depends on the type and location of the tumor, its stage and how it responds to therapy. Blood

transfusions and a wide range of other interventions are used to support the main therapies. During the last two decades, improvement of cancer treatment therapies and improvement of supportive care have resulted in increased long-term survival rates for childhood cancer^{2,10}.

Despite this overall improvement, the important anticipant factor for a child who has cancer is the country where he or she was born⁵. The major limitations in pediatric cancer care in LMICs are late diagnosis, inefficient health care system, and a higher proportion of coexisting conditions such as infections and malnutrition^{4,5}. In addition, a large proportion of countries, which have high childhood cancer rate do not have cancer registries, which are essential for surveillance and improvement of cancer control policies¹¹.

Childhood cancer treatment, including chemotherapy and palliative care needs a multidisciplinary medical team^{12,13}. The team often includes physicians, nurses, pharmacists, social workers, and psychologists¹⁴. The role of physicians in childhood cancer treatment is well described in the literature, however, little has been published about the unique role and experiences that nurses play in cancer care¹⁵.

The role of nurses in pediatric cancer care

A pediatric oncology nurse is a registered nurse (RN) who works in a pediatric hematology or combined pediatric hematology/oncology unit and provides care for children and adolescents who have cancer^{4,16}. The role of nurses in the palliative care team is fundamental^{17,18}. Nurses are very close with patients and their families; they are present at the bedside for prolonged periods of time and have the best opportunity to explore the needs of children and their families¹⁰. They help patients and families to understand the disease and the plan of treatment. Usually patients tend to refer to nurses first if they have any problem^{9,11}.

While hospitals in high income countries provide educational programs and trainings to newly hired pediatric oncology nurses, such programs are not available for nurses in LMICs^{9,12}. Studies in high

income countries (HICs) have concluded that well- educated nurses help to improve the outcome of disease and reduce mortality¹⁹.

Another issue in less developed countries is insufficient oncology nurse staffing, which leads to higher risks for complications, longer hospital stays and increased mortality^{10, 42}.

In 2010 The International Society of Pediatric Oncology (SIOP) established Nursing Working Group with the support from SIOP Pediatric Oncology in Developing Countries (PODC) Committee¹². The objective of the group was to promote the role of nurses in cancer care and protect nurses working in less developed countries. The Nursing Working Group developed a set of baseline standards for pediatric oncology nursing care in LMICs¹² in 2013.

According to the standards, pediatric nurses should remain in the pediatric oncology service and not rotate to other specialties. All new nursing employees must receive pediatric oncology educational programs with experienced nurse preceptor. The duration of the programs should be four weeks. Also the guidelines recommend a minimum of 10 hours of continued education for nurses per year. As members of multidisciplinary teams, nurses should be present during discussions of diagnosis and treatment plans. Finally, nurses should have all resources needed to provide pediatric oncology care¹².

The standards establish the foundations for quality nursing care which is essential to sharpen the survival rate of children who have cancer in LMIC¹². However, the implementation of the standards is still challenging in many less- developed countries due to numerous barriers such as poor nurse retention rates and nursing shortage and inadequate financial resources^{2, 12}.

Stress among pediatric oncology nurses

The National Institute for Occupational Safety and Health defines workplace stress as an adverse emotional and physical reaction experienced when the requirements of the job do not meet the

capabilities or needs of workers²⁰. Professional stress is associated with a decrease in the quality of the services provided and increase in the number of errors¹⁴.

Nurses face innumerable stressful situations in their daily work²¹. Because of their closeness with patients and specific tasks they carry out, they are a vulnerable group for experiencing stress¹⁴.

Several studies suggested that stress among nurses is closely related to inadequate training, difficulties in relationship with medical staff and lack of information about the disease at the time of diagnosis¹⁴.

The major source of professional stress among pediatric oncology nurses is their distress with children's death and the process of dying¹⁴. A study conducted among oncology nurses in Greece has shown that one of the problems that nurses face during their experience is difficulty communicating with children and parents at the terminal phase of care²².

Often nurses, providing supportive care to patients are in need of support themselves. Oncology nurses are a vulnerable group to "burn-out"²¹. Burn-out is a work-related syndrome, which is a result of long-lasting high levels of stress, described by depersonalization and exhaustion^{23,24}. However the results of studies on this point are contradictory. Burn-out syndrome among nurses mostly exists in LMICs, while in high income countries high educational levels and working conditions help to cope with job strain²⁵.

Studies among pediatric oncology nurses in various countries have shown that being a pediatric oncology nurse may affect a person's quality of life, including its familial, psychological and environmental dimensions¹⁷.

Situation in Armenia

According to the report of the Ministry of Health in Armenia, there were 714 total cases of pediatric cancer between 2004 and 2013 among those aged 0 to 17 years²⁶. Compared to 2005, in

2014 the incidence of childhood cancer decreased by 25% and cancer mortality decreased by about 40%¹⁹.

According to the National Center of Oncology the most common types of cancers among children in Armenia between 2004 and 2014 were malignancies of the hematopoietic and lymphatic systems (40%), brain and central nervous system (15%), bone tissue (11%) and kidneys (7%)¹⁹.

There are three oncological hospitals in Yerevan which provide pediatric oncology treatment: The Center of Hematology, Muratsan Medical University Hospital and The National Center of Oncology.

According to the report from the Ministry of Health, the treatment of cancer for children from 0 to 7 years in Armenia is covered by the Government^{6, 26}. Since 2012 the care for children above 7 years is partially covered by co-payments²⁷.

Parents of children with cancer often face financial difficulties in the process of care, as many expensive drugs are not covered by the Government¹⁰. Moreover, some of the drugs are not available in the pharmaceutical market in Armenia, and parents are forced to buy them on their own from abroad¹¹. Some of the needed medicine for children with cancer is provided by the charity fund “Grant Life”¹⁰.

Another issue in pediatric cancer care in Armenia is poor physical conditions and facilities in some of the hospitals where children receive treatment.

The nursing care to children with cancer in Armenia is provided by nurses who received a three-year vocational education after high school in the state-owned colleges in compliance with educational standards, set by the Ministry of Education and Science. Two of the nursing colleges are located in Yerevan: Yerevan State Basic Medical College and Yerevan Armenian-American Medical College. In addition to this, nine other colleges exist in regions²⁸.

Yerevan State Medical University (YSMU) provides additional training for narrow specialties in nursing, including educational programs for hematology nurses. However, pediatric oncology nursing does not exist as a specialty in Armenia²⁹.

The challenges and the areas for improvement in the overall nursing practice in Armenia have been highlighted in the mixed qualitative and quantitative research, conducted by the School of Public Health at the American University of Armenia in 2015²⁰. The study revealed gaps in clinical skills and education of nurses and highlighted the distorted role of nurses and their overall poor involvement in decision making and clinical practice. The study revealed that in Armenia nurses are not perceived as independent health care professionals.

While the main difficulties experienced by nurses in all specialties and settings in Armenia are commonly acknowledged, little is known about specific challenges in the field of nursing care provided to pediatric cancer patients in Armenia.

This study described the experiences of pediatric oncology nurses in Armenia and explored their needs, concerns and limitations with the purpose of helping to improve the services provided to children with cancer in Armenia.

The study addressed the following research questions:

1. What are the experiences of pediatric oncology nurses in Armenia?
2. What are the needs and challenges of pediatric oncology nurses in Armenia?

Methods

Study design

The student investigator has conducted a qualitative study with semi structured in depth interviews. Purposive sampling has been used to enroll pediatric oncology nurses identified through clinical network. Qualitative approach was chosen because it can generate rich descriptions of phenomena and help to investigate previously unexplored complex issues.

Study population

Study population included registered nurses who have had a minimum of one year of experience in pediatric oncology nursing. More than one year criterion helped to ensure that participants were experienced enough to comment on oncology nursing practice.

The recruitment was conducted among oncology nurses, registered at one of three Hospitals, which provide pediatric cancer treatment in Armenia: The Hematology Center, Muratsan Medical University Hospital and The National Center of Oncology.

In addition, interviews have been conducted with one and/or two physicians from each hospital.

Study instrument

The student investigator used a semi-structured interview guide (Appendices 1-2), which consisted of open-ended questions. Interviews have started with collecting demographic information. Based on the literature review the core interview questions were grouped into the following main domains:

- a) The perceived importance of the role of oncology nurse and preparation for this role,
- b) Education, trainings and practice
- c) The routine tasks of nurses in the oncology departments,
- d) Working conditions in the hospitals,
- e) Relationships with other nurses and physicians,
- f) Relationship with children with cancer and their parents,

- g) Experiencing/coping with stress,
- h) Suggested ways to address the needs of oncology nurses.

The guide for nurses was slightly revised for use among physician respondents.

Data collection

After getting permission from the heads of oncological departments at the hospitals, the student investigator approached pediatric oncology nurses. The student introduced the purpose of the study and after receiving nurses consent to participate in the study, identified the most appropriate time and location for the interview. There were 22 nurses in oncology hospitals available for recruitment. Data collection continued until saturation was achieved.

Data collection among physicians started after achieving saturation with nurses. The same recruitment process was utilized to involve physicians in the study.

Data management and analysis

All interviews were audio recorded and transcribed into English. No personal identifiers such as name, address or phone number were used throughout the study.

Mixed inductive and deductive approaches were used for qualitative content analysis. The broader themes were identified based on the literature. During the data analysis some emerging subthemes were identified within major themes.

Coding process started with highlighting important words and/or sentences, after which similarly coded data were grouped into categories and subcategories. The informative quotes of participants supported the findings.

The trustworthiness of the study was ensured with appropriate training and preparation of the student investigator. The student reviewed the literature and had meeting sessions with advising team in order to get appropriate prevision about the study. All participants were informed and assured that they are free to refuse to participate in the study at any moment, which ensured the honesty in informants^{30,31,32}.

The information obtained from nurses was triangulated with the data provided by physicians working at the oncology departments, to understand the experiences and challenges of nurses through physician's perspectives. In order to sustain the reliability, data collection, analysis and results have been properly described in discussion part.

Ethical considerations

The student conducted the interviews after obtaining the participants' oral consent. The interviews were audio recorded after receiving permission from the participant. If a participant did not provide permission, then only notes were taken. The audio records and transcripts were safely protected till the end of the study, and only the student and her advising team have had access to them. After the completion of the study the audio files were deleted. The quotes of participants have been coded without including their personal identifiers.

The Institutional Review Board (IRB) of the American University of Armenia reviewed and approved the study protocol.

Results

Socio-demographic characteristics of participants

Seventeen nurses and five physicians participated in the in-depth interviews with the mean duration of 30 minutes. All interviews were conducted in the hospitals. There were no refusals among nurses, only two doctors refused to participate in the study because of the lack of time.

The mean age of nurses was 38, ranging from 21 to 56. All nurses have had professional technical education. Table 1 shows socio-demographic characteristics of nurses and physicians.

Table1. Characteristics of Participants

Characteristics	No. of nurses	No. of physicians
Gender		
Male		2
Female	17	3
Mean age	38	37
Marital status		
Married	9	2
Divorced	1	
Widowed	1	
Single	6	3
Years of experience		
1-10	6	
11-20	4	5
20-35	7	

The perceived importance of the role of oncology nurse and preparation for this role

The majority of interviewed nurses perceived their role as one of the most significant ones within the multidisciplinary medical team. Some nurses thought that they are “sisters of charity” and that they “give life to children”. Most of the participants mentioned that they have unique and difficult profession. One of the nurses stated that the role of nurses is most important in the process of adaptation of patients, as they are the first healthcare providers their patients refer to as they start the treatment.

Some of them mentioned that pediatric oncology patients are different from other patient populations psychologically, physically, and emotionally.

What refers to the role of oncology nurses in the overall health system in Armenia, according to some of the participants, during the last ten years positive changes in their work environment helped to increase the standing of oncology nursing. However, participants also mentioned that the majority of nurses still do not feel appreciated, as their important needs are not met.

“..It is more than just a work for me. We give life to children; at least we prolong life. Our work requires much care, gentle attitude and carefulness”.

P. 4 nurse

“..It is quite a difficult profession, both psychologically and physically. We work with children, we treat with serious drugs and any mistake can be fatal. There is a huge risk from even little fluctuation of the dose. I like my work, but it’s too complicated”.

P. 2 nurse

“.. Our work is not appreciated in Armenia. We work as much as the doctors do, but no one sees that”.

P. 11 nurse

Although almost all physicians stated that nurses play crucial roles in the process of care, they had limited expectations from them. They mostly wanted the nurses to simply follow their instructions. Also, one of the physicians stated that although he trusts nurses; he is always present at the time of administering chemotherapy and he supervises the dosage. In contrast, another physician mentioned that nurses should have appropriate skills, knowledge and experience to be able to make decisions themselves related to patients' care.

"..The role of nurses is one of the essential roles in the medical team. Nurses are supposed to do the main part of the work. Doctors should develop the general tactics of treatment, and nurses should follow their instructions.

P. 3 physician

"..We expect from nurses to perform doctor's prescriptions/ instructions properly and without delays, follow instructions in a timely, efficient and skillful manner. They should also be skilled enough to be able to make some decisions themselves to provide the needed assistance to patients."

P. 1 physician

Decision to work in the department

When nurses were asked how they have decided to become an oncology nurse, all of them stated that it “simply happened to them”. One participant commented that no one would want to work in the oncology department after graduation. She said that at first, you do not want to work as an oncology nurse, but after you start working, you do not want to leave. The majority of nurses explained this by their attachment to children. According to them the contact with children is one of the best things in their work and that children are the main reason for not changing the profession.

“..No nurse wants to work at pediatric department. First, you get admitted due to circumstances, then you do not want to leave. There were other opportunities, I have worked in the other departments, but I came back to my department again. It’s hard, but I work with pleasure”.

P. 6 nurse

“..When I graduated 30 years ago, the desire to become a pediatric oncology nurse was not so great. At that time, the government was appointing graduates [to workplaces] where there were vacancies, so I ended up here”.

p. 10 nurse

“..It’s so hard to work here [means in the department], but the presence of children make our work more pleasant and enjoyable. Relationships with children are the most beloved part in my work”.

P. 1 nurse

Education, training and practice

College education and pediatric oncology specialty education

Most of the respondents thought that nurses in Armenia have limited access to professional pediatric oncology or combined pediatric oncology/hematology nursing education. Most of the nurses stated that three years college education did not prepare them for working in the oncology field. Although all nurses reported participating in different educational programs and trainings, only two of them mentioned about receiving professional training for hematology/oncology nurses before being employed. The mentioned programs were provided by Yerevan State Medical University for narrow nursing specialties. The nurses stated that the programs were effective and helped to enhance their professional skills.

The majority of nurses highlighted the importance of professional education programs in their practice, and stated that they would substantially improve their practice and help to provide high quality care to patients.

Almost all of the physicians highlighted the role of specialty education and highlighted it as an unmet need for pediatric oncology nurses in Armenia. They stated that professional nursing education would help nurses better meet the needs of their patients.

“.. The education at college only provides general knowledge. We have not studied oncology nursing. For us to become more literate nurses, particularly to work in this department it is necessary to receive professional pediatric oncology nursing education, which does not exist [in Armenia]”.

P. 2 nurse

Continuing education

Most of the nurses mentioned that after graduation they are required to pass continuing education courses every five years for the so-called “diploma defense”. The courses are organized by the Yerevan State Medical University. These obligatory courses are focused on general nursing. They last four weeks and cost 50,000 Armenian drams (AMD).

Most of the nurses were dissatisfied with the courses they participated in and characterized them as impractical and formal.

The physicians supported those nurses who thought that continuing education programs are mostly useless. One of the physicians said that the nursing school as an institution does not exist in Armenia.

“..Yes, I have participated in [continuing education courses] at the National Institute of Oncology. In reality, they work in a very different way than we do, our working method is much better, I think. We have not received any new information; it was just for the check mark. Actually it gave us nothing”.

P. 10 nurse

“..I have recently participated in training at the National Center of Oncology, and I was not satisfied with the program. They should learn from us”.

P. 5 nurse

“..Today’s trainings, if you want me to be honest, are just done for the check mark, to pay money to the state. I do not consider it effective for sure. If you have been working for 30 years, why should you pay 50,000 drams for the continuing education and not learn anything? And the programs are obligatory, so I can’t refuse”.

P. 10 nurse

“..Nurses should always be in training process. However, in our case, that does not exist. The

only practice is their daily work. Once in 5 years they officially submit a certificate stating that they passed some 4 weeks' training courses, but actually it's just a formality”.

P. 5 physician

“..Physicians permanently participate in trainings, but we cannot say the same about nurses. And I do not mean courses for diploma defense [referring to continuous professional education].

P. 4 physician

“.. I would like the nursing system of abroad to be implemented in Armenia. They have various specialty nurses, we have just nurses, and that is all. When a nurse is hired, after some time, she should record career growth, which absolutely does not exist in Armenia. I wish there were conferences specifically for nurses, just for them to present. I wish that the whole nursing school existed.”

P. 1 physician

Drug seminars

All respondents talked about drug seminars and presentations, held in the departments at least once in a month, which they perceived as educational programs. Most of nurses expressed satisfaction with these seminars. Nurses stated that these seminars are important for achieving confidence and improving performance levels in their work.

“.. Yes, I have participated in many educational programs. For example, if there is a new drug in the market, the pharmacists arrange presentations and inform as about them or talk about the changes in the sphere”.

P. 6 nurse

Programs on first aid services

Nurses also mentioned about participation in first aid trainings. Nurses were mostly satisfied with the trainings.

During these trainings the nurses learned how to provide general help to patients during the emergency situations. Participants mentioned that they exchange their newly learned knowledge and skills on first aid with nurses from other departments.

“.. They taught us how to provide emergency help and first aid service in critical situations. The program was very informative for me. It was conducted for all specialty nurses, but it helped me a lot in my profession too”.

P. 1 nurse

Trainings abroad

Only two of the nurses participated in professional education programs abroad. Although both of them highly valued the effectiveness of the programs they stated that very little of what they have learned could be implemented in Armenia because of the lack of resources. One of these two nurses explained that the main difference between Armenia and abroad is that the departments abroad are technically developed and have much better conditions compared with the settings where they work.

Other nurses mentioned that although hospitals provide them with opportunities to be trained abroad most of them refuse to go because they are not fluent in English.

Physicians agreed that hospitals provide opportunities for nurses to participate in various training courses abroad, but it is about those nurses who are ambitious and master foreign languages. One of the physicians stated that knowledge of foreign languages is important for nurses, because they need to use the literature in other languages to be aware of the recent developments in their field. Another physician was convinced that all educational programs for nurses should be held abroad, particularly in European and American clinics, where the programs are appropriately and well organized.

“.. I participated in various conferences and events. I have been to India and America for trainings. Sure, it was effective and gave a lot of knowledge. After coming back I taught other young nurses how things are done there. The difference between the practice here and abroad is not so big from the perspective of treatment, but it is more technically developed there. The conditions and nothing else. The drugs and performing methods are almost the same. A machine does everything there, while here everything is done by the nurse”.

P. 9 nurse

“..Training courses, either for nurses or for doctors, should be held abroad. This is my honest opinion. In addition, it is not a secret that the work abroad, in European and American clinics, is much better organized. That is why if a person should be trained, she should go somewhere she really has something to learn from, not just for the check mark. Nursing itself is a practical work. They should be sent to the best clinics”.

P. 2 physician

Learning from experience and colleagues

Some of the nurses told that work experience and help of colleagues are the best methods of learning. Several nurses stated that the best training is learning from experience.

The newly hired nurses highlighted the role of physicians and experienced nurses in helping them to understand their responsibilities, especially at the beginning of their careers. One of the nurses stated that she mostly learned from the doctors and nurses and she always feels comfortable to approach them with questions.

“.. You know, the education does not ever prepare well enough for any department. The theory is quite different, practice and the process of work is completely different. Mainly physicians helped us. In our department none of the nurses work independently, we do everything under the doctors’ supervision”.

P. 9 nurse

“..Not the education, but practice prepared us. Approximately once a month, seminars are held in the hospital for nurses, and we take part in all of them. In case there are some new drugs, or there is anything new [in the field], they definitely inform us”.

P. 3 nurse

“..Although, I was trained in this department before starting my work and got training courses at the National Institute of Oncology, most importantly, our nurses and physicians helped us”.

P. 12 nurse

“..Three years of education was the only thing that college gave us. We never studied oncology at advanced level. Whatever I have learned I have learned from nurses here.”

P. 2 nurse

Routine work in the oncology department

While exploring the nurses' routine tasks in the departments, it was found that their work is often overloaded. Most nurses reported that usually they have 5 to 10 patients per shift, but sometimes the number of patients may be up to 30 children and adults. Although all the departments were pediatric, there were adult patients as well.

Based on the hospital requirements, nurses' main responsibilities in the department include taking samples for laboratory tests, preparing and administering medications, measuring vital signs, and supporting patient's families. When participants were asked about nurses' main responsibilities, one of them stated that showing caring attitude toward patients is her primary responsibility. Mostly one or two nurses work in the department per shift, which lasts 24 hours. The head nurses work part time and mainly do the paper work.

"..Our work is overloaded. Nurses in other departments may have a cup of coffee three times a day, while we may not have even one. Of course, it is more relaxed on any floor above [means other departments]. How is it possible to compare the pediatric chemotherapy with the surgery department, where they may give some antibiotics twice a day, and then sit with crossed legs and have rest?"

P. 8 nurse

"..There is one nurse in the whole department, while we might have 5, 6, up to 10 patients, depending on a day. This is about children, but we also have adults. Yes, the department is pediatric (smiling)."

P. 10 nurse

"..The department is pediatric, but we also have adults. All of them get chemotherapy treatment. We have assignments to complete, medication is prescribed, [we do] whatever is necessary for every

patient at that moment, for that day.”

P. 4 nurse

“..We are not present at the time of patient's diagnosis. We may ask about it just for interest.”

P. 6 nurse

Working conditions in hospitals

Working conditions of nurses varied largely depending on a particular hospital. Generally, nurses evaluated their working conditions as comfortable, not perfect but enough for their work. However, the problems with the physical conditions of the facilities and the availability of necessary equipment and medication were also mentioned. For example, several nurses mentioned that they might lack some simple equipment like tonometer or some basic means, like syringe or cotton.

One of the nurses reported that conditions in the hospital are enough for them to work but not comfortable enough for patients. Another nurse, while talking about conditions, stated that the only room that was reconstructed recently was the playing room for children, while other rooms in the department also need renovation, which discourages her in her work.

Several nurses had complaints about availability of chemotherapy drugs. They told that these drugs are not provided by the hospital. Children's parents have to buy them on their own and nurses have to listen to their complaints every day.

Almost all nurses from one of the settings were highly satisfied with their working conditions. They told that after moving to the new building, their working environment has changed and created opportunities for better work. They stated that their department is equipped with all necessary devices and equipments.

“..I would like to be provided with all medications, equipments and tools. When we have them, our work becomes easier. We would not have to go and ask whether they have bought this or that drug, or ask them to give us the necessary amount. Instead, we would ... immediately provide those to patients. It is as if we go and request it for ourselves”.

P. 16 nurse

“..The conditions are much better in the new building, including the equipment. In the old one the conditions were not conducive to work, and you did not want to do anything. Now, patients say, they do not even feel like they are in a hospital.”

P. 1 nurse

“..Our conditions are very good, we just need financial means. Everything is expensive, including drugs. They must be provided without any payment.”

P. 2 nurse

“..There are so many little things that you have to ask the patient (to bring), you are even embarrassed to ask. I feel uncomfortable when I ask them to bring cotton or alcohol, as it happens that in the hospital even basic things are missing. And we hear many complaints from parents about this”.

P. 7 nurse

Inadequate reimbursement and denied vacation requests

One of the main concerns related to working conditions among nurses was inadequate reimbursement. All 22 participants without exception agreed that nurses receive insufficient salaries, which do not correspond to the responsibilities they have. Moreover, one of the nurses with more than 30 years of experience expressed her embarrassment about the fact that she receives the same amount of

money as the newly hired nurses do. The physicians agreed that the salaries of nurses should be increased to match their responsibilities.

Another common concern among nurses was not having an opportunity for vacation. One of the nurses observed that she could not take a vacation during the last two years because of the work overload in the department. Another nurse expressed her disappointment related to the absence of opportunities to have a social package from the Government, which includes health insurance, child's tuition fee and other services. She continued that social package would address the social needs of nurses and would give them the opportunity to arrange their holiday in Armenia.

“..Our salary is too small. I would like to have a salary that would let me take a vacation and travel somewhere far from the current atmosphere and routine. To let my mind relax and refresh. Nurses do need rest”.

P. 7 nurse

“..I wish everything was improved. Concerning the payments I wish we had the abundance of means and equipment that nurses working abroad enjoy. I wish I could serve 2 or 3 patients a day and not 20. I wish we had technically equiped rooms so that we don't have to take a patient from one room to another because there are few monitors to check the pressure, for example.”

P. 9 nurse

“..If you observe the workers at the chemotherapy department, you will see that if they do not get rest during a year, they will be sent to madhouse, because they are psychologically exhausted. But in this institution, we have been requesting a vacation for two years, and we have always been rejected”.

P. 2 nurse

Relationships with colleagues and physicians

According to our participants, professional, respectful and collaborative relationships existed between the nurses and physicians in each hospital. The sentence “We are feeling like a family” was the most frequently used one. Almost all participants stated that they are in warm relationships, based on trust, respect and friendliness with physicians. Some newly hired nurses said that their staff is special, and the behavior of experienced nurses is supportive. One of the nurses mentioned that the encouragement from the senior staff helped her to adapt to her new job and responsibilities very quickly.

All interviewed physicians agreed that the relationships in the departments are very positive. One of the physicians commented that in the field of oncology, nurses become a family. He added that nurses celebrate good outcomes and grief for bad ones together.

One of the interviewed physicians mentioned that in their department nurses and physicians are members of one team. They have regular team meetings, where they discuss complex work-related issues, with the primary focus on patient's needs and how to adequately meet those needs. Another physician said that the relationships among nurses are mostly positive, because of difficult profession and overloaded work.

“..Generally, we work together without any troubles. We are like a family, where everyone helps you. When someone makes a mistake, no one detracts her, we just help each other. And this is the same both with doctors and nurses”.

P. 6 nurse

“..In our department we provide care to children with cancer, we see seriously ill little persons, we see deaths, and to be honest, nurses do not have time for any intrigues. They are like a family, they support each other and meet all new employees with open hands”.

P. 3 physician

Relationships with children

Love, support, and attachment to children

According to our participants, their relationships with children are highly personal, based on love, support and attachment. None of the nurses have had difficulties or any problems with children. Nurses provide all opportunities for children to feel comfortable and safe. Several nurses reported that they always feel attached to children, as they stay at the hospital for prolonged periods of time.

“..The relationships with children are very warm. We never face problems with them, especially with children of young age. Sometimes we get so close with the children that we feel attached to them, as they may stay at the hospital for months”.

P. 5 nurse

“..The relationships with children are exceptional. They even cry and do not want to go back home at the end, due to connection formed between the staff and the patients, especially with nurses.

P. 8 nurse

“.. Caring for children is the best thing in my work. I like to play with them, it’s impossible to be stiff with them”

P. 1 nurse

Relationships with parents

Difficulties at the beginning of treatment

Many nurses mentioned that one of the unique characteristics of pediatric oncology is the presence of children's parents during the treatment. Nurses stressed that parents of children and their family members need adequate support and compassion from nurses, as they are shocked, especially at the beginning.

Most of the nurses mentioned that they may face some difficulties with parents at the beginning of the treatment process. They highlighted the importance of demonstrating respect, empathy and interest in children and parents' needs, as well as belief in the positive outcome of the treatment at the beginning and during the treatment process, since their level of stress is quite high during that period. The nurses stated that they feel responsible for listening to parents' opinions and feelings and addressing their concerns.

The nurses provide the parents with information about the treatment process and the disease. Some difficulties exist at the beginning of the treatment since parents might be aggressive and offensive, because of the shock. However, after some time, when the shock passes, the relationship with family members recovers.

"..There are difficulties at the beginning. When they first come, they [referring to parents of the patients] are aggressive. Therefore, we have to speak to them and explain what to expect. They change their attitude with our help, as we support them. Our support is more important, because we are in contact with children and their parents all the time".

P. 4 nurse

"..There might be difficulties with parents. At first, we are like enemies for them. Then, as they see

our approach, we become members of one family.”

P. 9 nurse

Experiencing and coping with stress

Children’s deaths as the most stressful events in pediatric oncology nursing practice

All nurses described pediatric oncology nursing profession as one of the most stressful specialties. Almost all of them admitted that children’s deaths are the most stressful events in their practice. Emotional exhaustion and anxiety were the most common stress expressions among the nurses.

One of the nurses said that, after each death she seeks a reason not to come to work, because the atmosphere in the hospital reminds her about the child. One participant stated that she feels stressed when the patient’s condition worsens, and she feels that she can no longer help the child. At that time, she experiences a deep sense of helplessness. Nurses with 10 or more years of experience noted that the number of deaths has dramatically decreased compared with ten or fifteen years’.

“..Oh, the deaths are the most stressful trial in my practice. In 1983, 84 when I worked here, 2 or 3 people died each week. Now it is not that bad. I do not know, maybe we have already become accustomed. It was too hard at the beginning”.

P. 10 nurse

“..A child’s loss is the hardest thing in my experience. Sometimes you become so close that you go to a child’s burial”.

P. 9 nurse

Coping strategies

Most of the nurses talked about the need for finding a good strategy to overcome stress and emotional challenges in their work. The majority of nurses stated that they cope with stress by themselves. Five nurses, with more than 30 years of experience, reported that they have already adapted to the situation and added that they now perceive everything more calmly. One of the participants commented that their work is so overloaded that they do not have time for stress. Another respondent mentioned that doctors and nurses helped her a lot, and usually they overcome everything together.

Although there is a psychologist in each hospital, only two nurses reported seeking them out for help. Several experienced nurses suggested to provide psychological support to all newly hired employees, since many years ago they needed it, but the hospital did not have such opportunities.

“..We have a psychologist, but I have never visited one. Besides, there was no time to understand whether I need psychological help or not.”

P. 10 nurse

“..Usually, when an incident occurs [means the death of patient], we come, sit, and start discussing it. We do not see a psychologist for help, we mostly adapt by ourselves”.

P. 9 nurse

“..You experience stress when you closely connect to children and one day they die. We have a psychologist, I visited her at the beginning, but it does not matter. You work here and you are in this process all the time. When you go on a holiday, you forget them for a month, you are happy and smiling, but when you come back, it is again the same. It is quite different from the maternity

hospital, for example, where everyone is happy and smiling”

P. 1 nurse

“..I have never liked psychologists, and I have never seen one. I am sorry, but you won't find a better psychologist than me”

P. 11 nurse

“..We have a psychologist, and I want to see her, but I do not. There may be questions I will not discuss with her, because we work together. I would like to see a psychologist ... someone who does not work with me and does not know me personally. The psychologist should be a person whom you do not know personally. This is what I think”.

P. 15 nurse

“..It is necessary to have psychological support in the beginning. I mean to have psychologists' visits. New employees need it, as we needed many years ago. Though, we also help them to come out of stress”.

P. 4 nurse

“.. My coping mechanism is just talking to someone about the child. The staff helps me a lot. I can't go home bearing those thoughts in my mind”.

P. 8 nurse

Changing personal outlook

Several newly hired nurses noticed that the experiences they have lived made them revise their life values and perspectives. Some of them, while talking about the most important experience in their nursing practice, reported that stress and feelings that they felt during their work, had completely

changed their life. One of them mentioned that now she believes in God and faith. Another nurse commented that being here and seeing what the children and families go through made her appreciate everything that she had. She added that her view of life has changed completely.

“..I was convinced that God really exists, there is faith. The difficulties have been very helpful in many aspects of life. Anyone who works here, can easily work anywhere else”.

P. 13 nurse

“..One and a half years ago, everything was quite different from now. The perception of life has completely changed. You see everything in a different light”.

P. 1 nurse

“..After starting to work here, every day I see the life line and I realize that there is no guarantee for anyone to wake up tomorrow or to wake up healthy. You should live only for that day. This is what my work gave me”.

P. 2 nurse

Discussion

To the best of our knowledge, this is the first qualitative study which explored the experiences of pediatric oncology nurses in Armenia.

The study revealed that nurses perceive their role in the process of care as a very important one. According to the interviews' narratives, nurses felt like they had a unique nursing specialty. This has been reflected through the description of the work they do and its unique characteristics. Although the majority of nurses described their practice as “difficult and stressful” or “overloaded and overwhelming”, almost all of them had a sense of passion and great emotions related to their work. The perceived importance of the nurses' role in the care process, emerged in our study, is consistent with findings reported previously in the literature. For example, the study exploring the experiences of oncology nurses in Salt Lake City in US found that nurses describe their profession as a unique practice with unique patient population and a prerequisite for the best outcomes³³.

As in many other resource-limited countries pediatric oncology nursing as a profession with required specialized knowledge and skills does not exist in Armenia^{20, 12}. The results of the present study highlight the importance of building opportunities for nurses to extend the scope of their knowledge, practice and skills. Currently such opportunities are limited for Armenian nurses. Most of the nurses receive educational programs only for general nursing practice and first aid service or exchange experiences with oncology nurses from other hospitals. Moreover, many nurses are dissatisfied with the above mentioned programs. Meanwhile, the literature highlights an importance for pediatric oncology nurses of being knowledgeable about all types of childhood cancers and treatment mechanisms to manage the side effects of treatments^{34,35,36}.

Specialized education has a huge impact on achieving standards identified for pediatric oncology nursing and providing comprehensive and quality care to patients^{28,37}. A study, conducted among

Tanzanian hematology nurses has shown that specialized trainings in basic hemato-oncology nursing have increased nurses' confidence and their participation in decision-making³⁷.

According to the recent policy changes, nurses in Armenia should obtain 140 continuing education credits every five years to get permission for continuing their professional practice²⁸. However, none of our participants fully understood the purpose of this policy, and most of them were dissatisfied with this requirement.

Another finding which emerged in our study was that many nurses had misconceptions about professional education in their field. Some participants perceived drug presentations as educational programs. They did not see the difference between educational programs and clinical practice or drug seminars, which might mean that the objectives of some of the educational programs were not adequately delivered to nurses.

Consistent with the literature, the responsibilities of pediatric oncology nurses greatly vary based on the departments where they work. However, basic responsibilities of all nurses in our study included collecting samples from patients for analysis and laboratory tests, implementation of chemotherapy procedure, preparing prescribed medication, measuring blood pressure, providing palliative care to children, and providing information and support to the family members. No one of nurses reported being present at the time of disease diagnosis and/or participating in decision-making process with regards to care. Nurses get assignments and instructions from doctors and work according to them. The scope of nurses' responsibilities and lack of their participation in decision-making process revealed in our study are in line with the results of the study conducted among nurses of various specialties in Armenia in 2015²⁰. In contrast, pediatric oncology nurses in more developed countries have strong oncology knowledge, leadership and interpersonal skills, which allow them to work autonomously^{38, 39}.

We found that nurses in our study had strong emotional connection with their pediatric patients, explained by the unique nature of the disease and long hospitalization periods. The study conducted among Iranian pediatric oncology nurses reported similar findings¹⁵.

Taking care of children with cancer requires specific skills and expertise, as the child and his family experience tremendous stress during the treatment process^{40,41,42,43}. All of the nurses who participated in our study stated that they are in good relationships with the parents and family members of children. Nurses are frontline healthcare providers who are responsible for satisfying clients' needs and concerns as soon as they enter the hospital^{44,45}. Our study showed that oncology nurses have a supportive and encouraging attitude towards patients and their families and are ready to manage the tension and difficulties during the first contact with children's family members.

Our findings related to experiencing, coping and resilience to stress among pediatric oncology nurses have substantial similarities with the results of other studies on this topic⁴⁶. Dying process and deaths of children were described as the most stressful experience in the nurses' practice, with great level of emotional involvement^{26,47}.

Interestingly, most of the nurses saw the coping process as their personal responsibility. The main strategy for overcoming stress was developing coping abilities on their own. This is in line with the study conducted among oncology nurses in Portugal^{20,19,48}. Similar to the results of the study conducted among Iranian nurses, in our study positive coping was enhanced by the years of experience, good working environment and relationships with colleagues⁴⁸. Although all the participants of study perceived pediatric oncology nursing as a stressful profession, collegial support helped them to overcome the difficulties. Studies show that lack of adequate support from colleagues might contribute to the work-related stress for some nurses¹⁹.

Although there seem to be opportunities for getting psychological support from the specialists in the hospitals, few participants have ever used their help. The literature states that appropriate psychological support among nurses not only decreases the effects of stress and anxiety, but also helps in providing psychological support to families by themselves^{6,49,50}. The participants of our study reported sharing emotions and stories with their colleagues, since their team members are most likely to understand their

thoughts, feelings and experiences. This finding is also supported by the literature and is not unique to Armenian nurses¹⁵.

We found that even the basic requirements for the quality pediatric oncology nursing care in LMIC's do not seem to be met in Armenia, particularly in the areas of recommended patient-to-nurse ratios, specialty training programs, participation in decision making process and necessary means, equipment and technical resources. The implementation of these standards has been highlighted by the Pediatric Oncology in Developing Countries Committee as an important prerequisite for enhancing the quality of provided care and survival rate of children with cancer⁴³. The implementation of these standards in Armenia could be a milestone in a way of addressing the major needs and challenges of pediatric oncology nurses.

Study strengths and limitations

This is the first study which explored the pediatric oncology nurses' experiences in Armenia. The qualitative design allowed collecting comprehensive and detailed information to address the research questions. The enrollment of most of the pediatric oncology nurses currently working in oncological hospitals in Yerevan helped to extend and generalize our findings for Armenia. Also, we triangulated the information provided by nurses using physicians' perspectives, which improved credibility of our study findings.

One of the study limitations was insufficient time allocated by some of the nurses to the interviews. Although the interviews were conducted at the time and place most convenient for them – in the hospital wards - they often had to interrupt interviews to perform work-related tasks. In addition, responses to questions related to working routine or conditions could have been affected by the hospital setting.

Recommendations

The results of the study stress the importance of providing opportunities for nurses to receive professional specialty trainings, which could enhance their professional development and help them in becoming a valued member of the multidisciplinary medical team.

We suggest increasing the number of nurses working in the pediatric oncology departments, as current level of staffing makes their work overloaded and might affect the quality of provided care. Finally, we recommend examining various ways of helping nurses to deal with stress using professional psychologists' services.

Future investigations should explore the perspectives of parents of children with cancer about services provided by nurses, which could offer further insights into ways to improve pediatric cancer care in Armenia.

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3. How has your education prepared you for the role of an oncology nurse? Have you participated in any educational programs specifically designed for nurses working at oncology departments before being employed here? Have the physicians provided training in your work post-employment or help for you to handle your responsibilities? How/ what have they taught you?

4. Can you tell me what working here has given you? What was the most meaningful or important experience in your oncology nursing practice?

Routine tasks at the department

5. Can you tell me what your main responsibilities are during your working day?

6. What is the most difficult/unpleasant task/responsibility for you? Why? The task you perform with pleasure? Why?

Working conditions in the hospitals

7. Can you tell me about facilities and conditions of place where you work? Do you have all resources (rooms, equipment, staff) needed to provide high quality oncology care?

Relationships with colleagues

8. Please describe your relationships with other nurses and physicians. What are the challenges? What are the positive sides? What do you think cause these issues (related to negative relationship) and how can they be addressed?

Relationships with children and their parents

9. Please describe your relationships with your child patients and their parents. What are the main challenges? What are the positive moments?

Experiencing/coping with stress

10. What was the most stressful experience for you in your practice? Could you describe how you felt? Do you often feel stressed because of this job? In general, how do you cope with work-related stress? Do you have an idea about how other nurses cope with it?

Needs of oncology nurses in Armenia

11. What could be done for you to feel better in your role as an oncology nurse?

12. In your opinion what are the needs of oncology nurses in Armenia in general? How these needs can be met?

Appendix 2. Interview guide for an in-depth interview with nurses (Armenian version)

ID:

Վայր _____

Հարցազրույցի սկիզբ _____

Հարցազրույցի ավարտ _____

Հարցազրույցավար _____ « » _____ 2017թ.

1. Ծննդյան տարեթիվ: _____/_____/_____

2. Ձեր ամուսնական կարգավիճակը
 1. Ամուսնացած
 2. Բաժանված
 3. Ամուսինը մահացած
 4. Չամուսնացած

3. Ձեր կրթական աստիճանը
 1. Միջին մասնագիտական
 2. Բարձրագույն
(ինստիտուտ/համալսարան)

4. Ք՞ անի տարի է, որ Դուք աշխատում եք որպես մանկական ուռուցքաբանության բուժքույր: _____ տարի

Ուռուցքաբանության բուժքույրի դերի / կարևորության ընկալումը

1. Կարող էք ասել ինչ է Ձեզ համար մանկական ուռուցքաբանության բուժքույր լինելը: Ի՞նչն էք ամենից շատ սիրում ձեր աշխատանքում: Արդյոք այն տարբերվում է այլ մասնագիտության բուժքույրների աշխատանքից:
2. Ի՞նչպես Դուք որոշեցիք դառնալ մանկական ուռուցքաբանության բուժքույր:
3. Ձեր կրթությունը բավարար նախապատրաստել է Ձեզ ուռուցքաբանության բուժքույր դառնալու համար: Դուք երբևիցե մասնակցել էք որևէ նեղ մասնագիտական վերապատրաստման դասընթացի, որը նախատեսված է ուռուցքաբանության բաժանմունքում աշխատելու համար մինչև Ձեր աշխատանքի անցնելը: Արդյոք բժիշկները օգնել են Ձեզ հասկանալու Ձեր պարտականությունները, ի՞նչ են Ձեզ ասել և ինչպե՞ս:
4. Կարող էք պատմել այն մասին, թե ի՞նչ տվեց Ձեզ աշխատանքն այստեղ: Ի՞նչ էք կարծում, ո՞րն է ամենակարևոր փորձառությունը, որ Դուք ձեռք բերեցիք Ձեր աշխատանքի ընթացքում:

Ընթացիկ խնդիրները բաժանմունքում

5. Կարող էք պատմել՝ որոնք են Ձեր հիմնականն պարտավորությունները աշխատանքային օրվա ընթացքում:
6. Ո՞րն է ամենաբարդ խնդիրը Ձեր համար: Ո՞ր պարտավորություններն էք Դուք կատարում հաճույքով: Ինչու՞:

Աշխատանքային պայմանները հիվանդանոցում

7. Կպատմե՞ք Ձեր պայմանների և հարմարությունների մասին այն բաժանմունքում, որտեղ աշխատում էք: Դուք ապահովվա՞ծ էք այն բոլոր միջոցներով, որոնք անհրաժեշտ են որակյալ ուռուցքաբանական բուժում ապահովելու համար:

Հարաբերությունները աշխատակիցների հետ

8. Կարող էք պատմել Ձեր հարաբերությունների մասին Ձեր աշխատակիցների և բժիշկների հետ: Ի՞նչ դժվարություններ կան: Որո՞նք են դրական կողմերը:

Հարաբերությունները երեխաների և նրանց ծնողների հետ

9. Ինչպիսի՞ն են Ձեր հարաբերությունները բուժում ստացող երեխաների և նրանց ծնողների հետ: Որո՞նք են դժվարությունները, որո՞նք են դրական կողմերը:

Մթերևի փորձառություն /հաղթահարում

10. Ո՞րն է ամենասթրեսային փորձառությունը Ձեր պրակտիկայի ընթացքում: Կարո՞ղ եք պատմել ինչպես էիք դուք Ձեզ զգում: Հաճախ եք զգում լարվածություն Ձեր աշխատանքում: Ինչպե՞ս եք հաղթահարում աշխատանքային լարվածությունը: Դուք տեղյա՞կ եք թե ինչպես են հաղթահարում այն այլ բուժքույրերը:

Ուռուցքաբանության բուժքույրերի կարիքները Հայաստանում

11. Ի՞նչ կարելի է անել Ձեզ համար, որպեսզի Դուք ավելի լավ զգաք՝ որպես ուռուցքաբանության բուժքույր:

12. Ի՞նչ եք կարծում, որո՞նք են ուռուցքաբանության բուժքույրերի հիմնական կարիքներ Հայաստանում: Ինչպե՞ս դրանք կարող են վերացվել:

Appendix3. Interview guide for an in-depth interview with physicians (English version)

ID:

Date:

Time:

Interviewer:

Demographic information

1. Date of birth _____/_____/_____

2. What is your marital status?
 1. Married
 2. Divorced
 3. Widowed
 4. Single

3. How many years have you worked as a pediatric oncologist? _____ years

The perceived importance of the role of oncology nurse

4. What do you think about the role of pediatric oncology nurses in hospitals in general? Can you describe what are the main expectations from them? Do you meet or not these expectations?

5. What do you think about specialty oncology nursing education programs in Armenia? Are these programs essential to provide high quality oncology care? What in your opinion can help to improve nursing practice?

Routine tasks at the department

6. What do you think are the main responsibilities of nurses during their working day? What is the most difficult task for them? What task they perform with pleasure?

Working conditions in the hospitals

7. In your opinion, do nurses have all resources, needed to provide high quality oncology care?

Relationships with colleagues

8. Please describe your relationship with nurses. What are the challenges? What are the positive sides?

Relationships with children and their parents

9. How would you describe the relationships of nurses with patients and their parents? What are the main challenges? What are the positive moments?

Needs of oncology nurses in Armenia

10. What do you think could be done for nurses to feel better in their role of oncology nurse?

What are the needs of oncology nurses in general in Armenia?

Appendix 4. Interview guide for an in-depth interview with physicians (Armenian version)

ID:

Վայր _____

Հաղորդագրության սկիզբ _____

Հաղորդագրության ավարտ _____

Հաղորդագրության ամսաթիվ _____ « » _____ 2017թ.

Համաձայնության ձև ներկայացում

1. Ծննդյան տարեթիվ: _____/_____/_____

2. Ձեր ամուսնական կարգավիճակը
 1. Ամուսնացած
 2. Բաժանված
 3. Ամուսինը մահացած
 4. Չամուսնացած

4. Քանի տարի է, որ Դուք աշխատում _____ տարի եք որպես մանկական ուռուցքաբանության բժիշկ :

Ուռուցքաբանության բուժքույրի դերի ընկալում

1. Ի՞նչ կարծիք ունեք հիվանդանոցում ուռուցքաբանության բուժքույրի դերի մասին: Կարո՞ղ եք ասել, թե որո՞նք են Ձեր հիմնական սպասումները նրանցից:

2. Ի՞նչ կարծիք ունեք Հայաստանում նեղ մասնագիտական ուռուցքաբանության բուժքույրերի վերապատրաստման դասընթացների վերաբերյալ: Արդյո՞ք այդ դասընթացները առաջնային են որոկյալ բուժում ապահովելու համար: Ի՞նչը Ձեր կարծիքով կօգնի բարելավել բուժքույրերի փորձառությունը:

Ընթացիկ խնդիրները բաժանմունքում

3. Ի՞նչ եք կարծում, որոնք են այն հիմնական պարտավորությունները, որոնք ունեն բուժքույրերը իրենց աշխատանքային օրվա ընթացքում: Որո՞նք են ամենաբարդ խնդիրները նրանց համար: Ի՞նչն են նրանք անում հաճույքով:

Աշխատանքային պայմանները հիվանդանոցում

4. Ձեր կարծիքով արդյոք բուժքույրերու ունե՞ն բոլոր անհրաժեշտ ռեսուրսները որակյալ բուժում տրամադրելու համար:

Հարաբերությունները աշխատակիցների հետ

5. Ինչպե՞ս կնգարագրեք Ձեր հաարբերությունները բուժքույրերի հետ: Ի՞նչ դժվարություններ կան,որո՞նք են դրական կողմերը:

Հարաբերությունները երեխաների և նրանց ծնողների հետ

6. Ինչպե՞ս կնկարագրեք բուժքույրերի հարաբերությունները բուժվող երեխաների և նրանց ծնողների հետ: Որո՞նք են հիմնական դժվարությունները, դրական կողմերը:

Բուժքույրերի կարիքները Հայաստանում

7. Ի՞նչ եք կարծում, ի՞նչ կարող է արվել բուժքույրերի համար, որպեսզի նրանք իրենց ավելի լավ զգան իրենց դերում, որպես ուռուցքաբանության բուժքույր:
8. Որո՞նք են ուռուցքաբանության բուժքույրերի հիմնական կարիքները Հայաստանում:

Appendix 5: Consent form for nurses (English version)

American University of Armenia

Institutional Review Board #1 Consent form

Hello, my name is Tamara. I am a pharmacist and the graduate student of the Master of Public Health program at the American University of Armenia. As part of my thesis project and with help of my faculty members I am conducting a study to explore the needs and challenges of pediatric oncology nurses in Armenia.

You are invited to participate in this study, as you are a registered pediatric oncology nurse, who works in one of the Oncology Hospitals in Yerevan. Your contact information has been obtained from the department where you work. Your participation in this study is voluntary. If you willing to participate we will conduct face-to-face interview, which will last up to 1.5 hours. Interview will be conducted once in place and time that is convenient to you. There is no judgment if you refuse to participate in the study. You may skip any question if you do not want to answer or you can stop the interview.

Your participation in this study is valuable for us, because it will help us to understand the challenges and needs of pediatric oncology nurses in Armenia and will help to suggest appropriate solutions to cope with them.

The information that you will provide during the interview will be confidential and will be used for the study only. Your name or other contact information will not be seen on the questionnaire, only some quotes will be presented in the general findings without your name.

If you permit, I will record our interview to not miss any important information that you provide. But if you feel uncomfortable you have right to ask to turn off the recorder at any time during the interview.

If you have any questions regarding to my study you can ask me or you can contact to the member of the research team Dr. Tsovinar Harutyunyan at (060) 61 25 60

If you feel you have been hurt to joining the study or you have not been treated fairly you can contact Dr. Kristina Akopyan, AUA Human Subject Protection Administrator (060) 61 25 61

If you agree to participate could we continue?

Do you agree to audio-recording?

Signature

Date

Appendix 6: Consent form for nurses (Armenian Version)

Հայաստանի Ամերիկյան Համալսարան

Հանրային առողջապահության բաժին

Գիտահետազոտական էթիկայի թիվ 1 հանձնաժողով

Իրազեկ համաձայնության ձև

Բարև Ձեզ, իմ անունը Թամարա է: Ես դեղագետ եմ և միաժամանակ սովորում եմ Հայաստանի ամերիկյան համալսարանի Հանրային Առողջապահության մագիստրոսական ծրագրի ավարտական կուրսում: Որպես իմ թեզային աշխատանքի մաս, ես և իմ բաժինն իրականացնում ենք հետազոտություն, որի նպատակն է հետազոտել թե ինչ խնդիրներ և կարիքներ ունեն քաղցկեղով հիվանդ երեխաների և դեռահասների հետ աշխատող բուժքույրները:

Դուք հրավիրված եք մասնակցելու այս հետազոտությանը, քանի որ Դուք գրանցված բուժքույր եք և աշխատում եք Երևանի Ուռուցքաբանական հիվանդանոցներից մեկում: Ձեր կոնտակտային տվյալները վերցվել են այն բաժնից, որտեղ Դուք աշխատում եք: Ձեր մասնակցությունն այս հետազոտությանը կամավոր է: Եթե համաձայն եք, Ձեր մասնակցությունը սահմանափակվում է մեկ հարցազրույցով, որը կանցկանվի Ձեզ հարմար ժամին և վայրում և կտեվի մինչև 1.5 ժամ: Դուք կարող եք հրաժարվել պատասխանել ցանկացած հարցի կամ ընդհատել հարցազրույցը ցանկացած պահի: Ձեզ ոչինչ չի սպառնում, եթե Դուք հրաժարվեք մասնակցել հետազոտությանը:

Ձեր մասնակցությունը այս հետազոտությանը շատ կարևոր է մեզ համար: Այն կօգնի մեզ ճիշտ պատկերացում կազմել այն կարիքների մասին, որոնք ունեն բուժքույրները և կօգնի առաջարկել համատապասխան լուծումներ հետազոտում:

Ձեր կողմից տրամադրված ինֆորմացիան կպահպանվի գաղտնի և կօգտագործվի միայն հետազոտական նպատակներով: Ձեր անունը կամ այլ կոնտակտային տվյալներ գրված չեն լինի հարցաթերթիկների վրա, միայն որոշ մեջբերումներ կներկայացվեն վերջնական զեկույցում՝ առանց նշելու Ձեր անունը:

Եթե համաձայն եք ես կձայնագրեմ մեր հարցազրույցը, որպեսզի բաց չթողնեմ կարևոր ինֆորմացիա: Սակայն եթե Դուք անհարմարություն զգաք, Ձեր իրավունքն է հետազոտության ընթացքում ցանկացած պահի խնդրել անջատել ձայնագրիչը:

Այս հետազոտության վերաբերյալ ցանկացած հարց ունենալու դեպքում Դուք կարող եք հարցնել ինձ կամ կապ հաստատել հետազոտության անդամ Շովինար Հարությունյանի հետ, հեռկայալ հեռախոսահամարով՝ (060) 61 25 60:

Եթե Դուք կարծում եք, որ Ձեզ որևէ կերպ վնասել կամ Ձեզ հետ ճիշտ չեն վարվել հարցազրույցի ընթացքում, Դուք կարող եք դիմել Էթիկայի հանձնաժողովի համակարգող՝ Քրիստինա Հակոբյանին տվյալ հեռապիտոսահամարով (060) 61 25 61:

Եթե համաձայն եք մասնակցել, կարո՞ղ եմք շարունակել:

Դուք համաձայն եք, որ ես միացն եմ ձայնագրիչը:

Ստորագրություն

Ամսաթիվ