

Physician Leadership Development Program: A Proposal for a Pilot Project

Master of Public Health Integrating Experience Project

Community Service Grant Proposal Framework

By

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Executive Summary

The goal of “Physician Leadership Development Program: a proposal for a pilot project” is to develop strong leadership skills among family physicians to play an effective physician-leader role for better healthcare services. Armenia needs skilled and motivated physician-leaders to address various challenges and issues across the healthcare system, from out-of-pocket payments, implementing healthcare as a fundamental human right, to patient-centered care. In order to overcome these challenges, health institutions need physicians equipped with leadership and managerial skills in all levels of administrative positions in the healthcare setting. Physician-leaders are expected to be inspired by a shared goal, to be caring and supportive, to be engaged in an open and effective communication with patients. The other two key characteristics of physician-leaders are responsiveness and trust building with the patients. One of the main indicators of measuring patient satisfaction is a patient-physician relationship.

We propose to implement a Physician Leadership Development Program for family physicians of Heratsi polyclinic, which is under the administration of Yerevan State Medical University. During the program, the core training personnel will consist of two physicians who have taken “training of trainers” course. The first session of the training will be the introduction to the program. The other twenty sessions will equally divide into four sessions for each of the domains: Demonstrating personal qualities, Working with others, Managing services, Improving services, and Setting direction.

Evaluation of the Physician Leadership Development Program consists of one baseline and two follow-up assessments of both intervention and comparison groups. The target population of the intervention group is the family physicians’ patients who have registered in the Heratsi polyclinic and attained treatment; whereas, in the comparison group the family physicians’ patients who have registered in the Muratsan Polyclinic and attained treatment. The estimated the sample size of the evaluation program should be 1,262 in each group.

The data collection will be done through a self-administered questionnaire. The study team developed a structured questionnaire, which includes 30 close-ended questions about socio-demographic characteristics and patient perspective of patient-physician relationship. The dependent variable of interest is Patient-Physician Relationship percent score, which is a numerical continuous outcome variable. The main independent variable of interest is being from Heratsi (intervention) or Muratsan (comparison) polyclinics. The control variables suggested by the literature include participant’s sex, age, socio-economic status, educational status, and marital status. After data collection, data entry and cleaning will be done.

Descriptive statistics will be done to describe the study participants. Followed by Chi Square test and T-test. Then, bivariate linear regression analysis and multivariate linear regression analysis will be made to control for the confounders. The estimated budget of the project is 6,007,800.00 AMD. The estimated budget for this grant proposal is calculated based on optimal fixed and overhead costs. The anticipated duration of the project is 14 months. Institutional Review Board (IRB) of the American University of Armenia approved the study protocol.

1. Overview

The project is a Community Service Grant Proposal for a “Physician Leadership Development Program” among family physicians. The goal of this proposal is to develop strong leadership skills among family physicians to play an effective physician-leader role for better healthcare services. This goal can be achieved by offering 21 sessions of Physician Leadership Development Program to family physicians working in.

1.1 Objectives of the project

By the end of the Physician Leadership Development training Program, the physician will:

- Develop an effective patient-physician relationship
- Deliver better quality health care
- Deliver effective and cost-efficient health care
- Build leadership competencies to drive change, manage teams, and provide effective healthcare

2.1 Introduction/Background

Armenia is a lower-middle income country and a part of the former Soviet Union. It is in a transitional stage of development after going through a great economic crisis after independence in 1991.¹ Armenia inherited Semashko health care system from the Soviet Union.¹

Armenia needs skilled and motivated physician-leaders to address various challenges and issues across the healthcare system, from out-of-pocket payments, implementing healthcare as a fundamental human right, to patient-centered care. The future physician leaders will need more than a medical degree to make a significant impact on the Armenian healthcare system and their local healthcare administrative settings.

At present, medical educational institutions in developed countries are undergoing a process of significant changes because of health reform and financial constraints. The main components of this process are changes in the curriculum in medical education and administrative proceedings in healthcare centers.² In order to overcome these challenges, health institutions need physicians equipped with leadership and managerial skills in all levels of administrative positions in the healthcare setting. This need requires the development of special programs aimed at developing physicians' leadership skills to enhance the patients' experience.²

“I suppose leadership at one time meant muscles;

But today it means getting along with people.”

--Mohandas Karamchand Gandhi.

According to the World Health Organization's (WHO) Quality of Care report, there are six domain of quality of intervention to help policy makers to address the quality of health. In the WHO's Quality of Care report, leadership is the first and the most important domain for the need analysis of the policy on health care, determination of health goals and quality inventions in the healthcare.^{3,4} In the present day, a healthcare system is an organization with huge complexity, facing new challenges every day.^{5,6} In order to handle this complexity, effective leadership needs to be integrated into the system at all levels.^{5,7} Studies show that quality initiatives fail to realize the desired outcomes if there is no strong or consistent leadership support.^{3,4} In order to overcome the resistance to the change for improving overall healthcare outcomes, sophisticated leadership are required. The latter is often in short supply.⁸ Healthcare institutions around the world are trying to reach universal health coverage and improve the efficiency of the system to better utilize scarce resources. In

this ongoing battle in the healthcare system, there is an urgency for strong leadership in healthcare.^{9,10}

So far, definitions of the leadership were versatile, and a few might apply for the healthcare system.¹¹ Warren Bennis, pioneering in the field of leadership studies, defines leadership “a function of knowing yourself, having a vision that is well communicated, building trust among colleagues, and taking effective action to realize your own leadership potential”.¹¹

2.2 Leadership in Healthcare

The very definition of leadership can confuse and derail efforts to engage physicians as healthcare leaders since the terms “leaders” and “leadership” are often confused.¹² Kumar (2013) suggests “leaders can truly be seen as change agents, placing the concern and development of others above themselves. This may be far more beneficial for health service improvement. Engaging professionals to buy into a vision and allowing them to lead the process of change is likely to be more successful than other approaches. Rather than toppling resistance to change, transformational leadership acknowledges and deals with it”.¹¹ Stogdill (1948) wrote “Leadership may be considered as the process (act) of influencing the activities of an organized group in its efforts towards goal setting and goal achievement”.¹³

Physician-leaders are expected to be inspired by a shared goal, to be caring and supportive, to be engaged in an open and effective communication with patients.^{11,14,15} The other two key characteristics of physician-leaders are responsiveness and trust building with the patients.^{4,16,17} Physicians trained in leadership can help to engage other professionals at different levels to embrace the organization’s mission and vision. They empower themselves to lead, execute team orientation and development in organizational culture through vision, enthusiasm, and passion. It is critical to march forward leadership in today’s healthcare system.^{11,18}

2.3 Leadership Development for Physicians

Physicians' engagement is a psychological state established through an interactive relationship with patients and working environment conditions in three frames: structural, political, and cultural. These frames can empower and depower them.¹⁹ Empowering physicians, attaining greater freedom, and enhanced accountability are innovative strategies to improve the quality of healthcare. However, these strategies are not sufficient to attain quality healthcare. Here comes the need for developing leadership for physicians.⁴ Leadership development programs among practitioner or physicians, nurses, and health care administrators have shown a significant change in the overall outcomes of the health care.^{3,4,10,18}

Physician leadership development programs have been created and implemented in many countries around the world. For instance, after a similar program, Jönköping County Council in Southern Sweden, showed 2-3 times better performance than all other Swedish peers on all health status outcome indicators.²⁰ This Council, where the CEO, the physician and board chair developed a good working relationship and transparency through open communication, good financial performance and thorough trust building where the board interference in day-to-day operations does not exist.²⁰

Another example of the importance of physician leadership development is from Denmark. Physicians in Denmark take a mandatory leadership course at the post-graduate level. Moreover, completion of leadership development program is a requirement for all medical directors on the boards of hospitals and heads of clinical departments. This requirement was enacted in order to more effectively address day-to-day administrative challenges observed in the healthcare system.^{20,21}

One of the world's best competency frameworks for physician leadership development was established by the Academy of Medical Colleges and National Health

Service (NHS), Institute for Innovation and Improvement, United Kingdom (UK).²⁰ Some authors suggested that NHS was the first system to adopt leadership development approach at all levels for its healthcare personnel in the world.²² This leadership development approach at all levels of the NHS provides Continuous Quality Improvement (CQI) and Total Quality Management (TQM) for the healthcare organizations.²² The NHS's "Leadership Academy" is committed to connecting better leadership to better patient care.²³ Besides committing for quality of patient care, programs at Leadership Academy, NHS, Leadership Academy's leadership development program is to create the culture that makes physicians and clinicians the ownership of the budgets, expenditure accountability and financial performance of service.²⁴

3. Methodology

3.1 Conceptual Framework

According to the World Health Organisation's (WHO) definition, health systems include "*all the activities whose primary purpose is to promote, restore or maintain health*".²⁵ The WHO's Conceptual framework suggests that the ultimate performance goals of health systems are "health", "fairness in financial contribution" and "responsiveness" (Appendix 1).²⁶ For this project, the basic assumption from the WHO framework suggests that investment in leadership trainings will improve the quality of healthcare and eventually improve responsiveness of provided care.

Responsiveness of health systems is defined as the client's legitimate expectation regarding the non-health dimension of the population's interaction with the health system.^{26,27} Responsiveness also contributes to the promoting utilization of the health system.²⁵ Responsiveness has two key components; those are "respect of persons" and "client orientation".²⁶

According to the WHO Quality of Care report, the leadership development programs have shown improvement in overall quality of care, client orientation, and in organizational behavior in the healthcare settings.³ As the literature shows, leadership development programs for physicians improve the overall responsiveness of the system and the patient-physician relationship.^{4,26-29}

“The Patient is the center of the medical universe,

Around which all our works revolve and towards which all effort tend.”

- John Benjamin Murphy

3.1.1 The Patient-Physician Relationship

One of the main indicators of measuring patient satisfaction is a patient-physician relationship.³⁰ The latter is an integral part of successful healthcare delivery.³¹ Although the concept of patient-physician relationship has not been clearly defined,³² it plays a great role serving as a “window mirror” model.³³ A window-mirror model for patient care and patient-physician relationship exists when there is mutuality of caring between patients and physicians, each respecting the other for their mutual benefit.³³ The patient-physician relationship is the most sensitive indicator of the persistence of difference and delivery of the care.^{3,30} A good relationship motivates physician to do well and the patient to cooperate better.³⁰ The person who seeks care can also be defined as “client” or “customer” rather than as a patient.³⁰ If the patient has a possibility of choosing the provider, the patient-physician relationship plays a critical role in the success among the competing providers. According to WHO’s Quality of Care report, engagement of patients and the population is a critical domain when building strategies for quality.³ The consumer or the patient is considered the center of the health care services,²⁵ and their first contact with healthcare is the physicians.^{3,25,30}

3.2 Implementation Plan Synopsis

3.2.1 Program

We proposed to implement the Physician Leadership Development Program to the family physicians of Heratsi polyclinic, which is under the administration of Yerevan State Medical University. During the program, the core training personnel will consist of two physicians who have taken “training of trainers” course. These physician trainers should have a Master of Public Health (MPH) degree from the American University of Armenia. The trainers will take the free online course “Edward Jenner Program” provided by Leadership Academy in National Health Services, United Kingdom.³⁴ The trainers will complete the course and obtain a certificate. On completion of the online program, the trainers will use these materials to teach the family physicians. The trainers will also translate the online program materials into Armenian. The training course includes topics not only about the leadership (as a core component), but also about cooperation, planning, resource management, innovation in patient care, assessment of outcomes of patient care and decision-making.

The program consists of 21 sessions (each 40 minutes), three sessions a week in a seven-week period. The physicians in the primary health centers work on two shifts; Morning shift: (9:00 AM -1:00 PM) and afternoon shift (1:00 PM - 5:00 PM) for six days a week. Each physician has his/her schedule on even and odd days of the week. Separate sessions will be offered to two cohorts on even and odd days of the week. The session will conduct on each day of the week from 2:00 PM until 3:30 PM with a break of fifteen minutes. No session will schedule for Sundays. The sessions will be conducted at the American University of Armenia.

3.2.2 Educational Materials

Educational materials include the copies of translated lectures from the Physician Leadership Development Program named “Edward Jenner Program” provided by Leadership Academy, National Health Services in United Kingdom³⁴ (Appendix 2).

The program covers five domains:

- 1) Demonstrating personal qualities
- 2) Working with others
- 3) Managing services
- 4) Improving services
- 5) Setting direction

The first session will be the introduction to the program. The other twenty sessions will equally divide into four sessions for each domain. The main curriculum guide of the program is included in Program Curriculum Guide.

3.3 Evaluation Plan Synopsis

Evaluation of the Physician Leadership Development Program is an important component of this grant proposal. The evaluation plan consists of one baseline and two follow-up assessments of the both intervention and comparison groups. These assessments are to assess the outcomes of the Physician Leadership Development Program of the proposed project. The evaluation is to quantify patients’ perspective of Patient-Physician Relationship through a quantitative method by the survey questionnaire.

3.3.1 Measurable Objectives

- A month after the end of the program (December, 2015), the Patient-Physician Relationship percent score of the physicians' patients will increase by 15% compared to the baseline percent score of the intervention group (August 2015).³⁵
- Six months after the first follow-up assessment (June 2016), the Patient-Physician Relationship percent score of the physicians' patients will increase by 17% compared to the baseline percent score of the intervention group (August 2015).³⁵
- Six months after the first follow-up assessment (June 2016), the Patient-Physician Relationship percent score of the physicians' patients of the intervention group will be higher by 10% compared to the comparison group.³⁵

3.3.2 Study Settings and Target Population

In the intervention group, the target population is the family physicians' patients who have registered in the Heratsi polyclinic and attained treatment. In the comparison group, the target population is the family physicians' patients who have registered in the Muratsan Polyclinic and attained treatment. Heratsi and Muratsan polyclinics are selected for convenience; they both are under the administration of Yerevan State Medical University. Moreover, the organizational culture, administrative proceedings, pay scale, budgeting, and management are similar to each other. The inclusion and exclusion criteria of the survey participants are (Table 1):

Inclusion Criteria:

- a) Being registered with Heratsi or Muratsan polyclinics
- b) Being eighteen year old to sixty-five years old
- c) Visiting family physicians

Exclusion Criteria:

- a) Being registered with these polyclinics after the baseline assessment (exclusively for follow-up assessments)
- b) Patients who participated in the previous assessments in this survey (exclusively for follow-up assessments)

3.3.3 Sampling Scheme

3.3.3.1 Sample Size

The student investigator calculated the sample size with the formula for two group comparison of means, exposed and unexposed groups for Cohort studies³⁶ by Epi-Info® -7 software. The outcome of the project is considered as a success if the difference between the intervening and comparison group in the first follow-up (O_1) assessment is 15% improvement in the patient-physician relationship percent score. From the existing literature of the other studies,³⁵ we assumed the baseline percent score of the patient-physician relationship to be 55.71% for both groups. After the intervention, the patient-physician relationship percent score is expected to increase to 64.07% in the intervention group in the first follow-up assessment (O_1).

The sample size is calculated based on the expected changes in the mean patient-physician relationship percent score in the intervention group of 15%. For variance, student investigator assumed that in both groups it will be equal. From a similar type of study,³⁵ the standard deviation of 2.5 was taken for calculation. Hence, the sample size was calculated to be one thousand one hundred and ninety eight (1198) in the intervention group and one thousand one hundred and ninety eight (1198) in the control group.

$$n_1 = n_2 = \frac{(Z\alpha/2 + Z\beta)^2 (\sigma_1^2 + \sigma_2^2)}{\Delta^2}$$

$$1198 = \frac{(1.96 + 1.28)^2 (2.5^2 + 2.5^2)}{(0.585)^2}$$

The literature shows that the response rate for similar types of evaluation studies have a response rate of 95%. Taking into consideration this information the estimated the sample size should be one thousand two hundred and sixty-two (1262) in each group.

3.3.3.2 Sampling Scheme

For the selection of survey participants, the project team will use probability systematic random sampling. The survey will be conducted at the polyclinic as an exist survey, just after the patients' visit their family physicians. The survey will be conducted from Monday through Friday for 20 days. The survey hours will be from 09:00 to 13:00 in the respective months of the assessments in both polyclinics. The sample size for baseline and follow-up assessments each group in intervention and comparison is 1,262. To conduct the survey for 1,262 patients in twenty days, approximately sixty-four (64) surveys need to be conducted per day. The average numbers of patients visit the family physicians per weekday will be obtained (July 2015) from the administrators of the polyclinics. Then the interval between the survey participants will be calculated by dividing the number of visitors by nine for the baseline and follow-up assessments. After the patients' visit to the polyclinic, the supporting staff will approach to the patients. The patients, who have visited family physicians in the Heratsi and Muratsan polyclinics, will be asked to participate. The data will be collected through a self-administrated survey questionnaire. The supporting staff will collect the data from both polyclinics.

3.3.2 Evaluation Study Design

The evaluation will consist of one baseline assessment and two follow-up assessments. The baseline assessment (**O₀**) of Patient-Physician Relationship percent score of the family physicians' patients of Heratsi and Muratsan Polyclinics will be gathered in August 2015. The follow-up assessment will be done one-month after the training in December 2015 (**O₁**) and seven months after the completion the program (six month after the first follow-up) in June 2016 (**O₂**). A Quasi-experimental, non-equivalent Control Group Design with independent groups will be applied for the proposed evaluation. The chosen design allows us to have a comparison group.

Intervention Group	O₀	X	O₁	O₂
Comparison Group	O₀		O₁	O₂

O₀ - Baseline Data Collection

X – Intervention

O₁ – Follow-up assessment one month after the end of the intervention

O₂ – Follow-up assessment six months after the first follow-up assessment

Threats to Internal Validity: History threat to internal validity will not be a significant issue since programs on leadership for family physicians Armenia are rare; moreover, having a comparison group will address the issue. Maturation can be a threat because the leadership development might not be only due to the intervention (Physician Leadership Development Program) but it might be due to the natural process of the physician acquired some skills during their practice; however, having a comparison group helps to address the issue. Testing cannot be a threat because the survey participants are independent. Instrumentation cannot be a threat, as the questionnaire used for the baseline and two follow-up assessments will be the same. Regression to the mean cannot be a threat because the survey participants are not people with only outlying characteristics related to the outcome variable of interest.

Selection bias can be a threat because there is no randomization of the survey participants into intervention and comparison groups. Moreover, the survey participants in both groups might differ from each other in terms of demographic and severity of disease. Compensatory rivalry can be a threat because the program participants will be aware of the evaluation study. Therefore, the family physicians might change their behavior and be friendlier with their patients. Attrition cannot be a threat because of survey participants are independent groups.

Threats to External Validity: Testing/Intervention interaction cannot be a threat because the assessment will be done on the independent groups. Therefore, the generalizability of evaluation results will not be jeopardized because of baseline measurements. Selection/Intervention interaction is a threat since the selected two primary healthcare centers (Heratsi and Muratsan Polyclinics) cannot represent all the primary healthcare centers in Armenia. The Reactive Situational effect can be a threat because the program participants might outperform due to the fact that they will know about the evaluation. Therefore, the results might not be generalized. Multiple treatments (leadership development programs) interference can be a threat because exposures to this kind of programs might be quite common in other countries. Therefore, the results from Armenia might have limited generalizability.

3.3.3 Questionnaire

In order to measure the variables of interest for the evaluation, the study team proposes to use a self-administrated questionnaire (Appendixes 3 and 4). The questionnaire consists of validated questions to measure patient-physician relationship score from patients' perspective³³ and questions to measure socio-demographic characteristics of the survey participants.³⁷ The validated questionnaire to measure patient-physician relationship from patients' perspective is adopted from "patient measure of the doctor-patient caring" questionnaire by Buetow et al. (2011).³³ The self-administrated questionnaire for the

proposed project's evaluation consists of thirty questions. Among these thirty questions, twenty-five questions measure the patient-physician relationship score and five questions measure socio-demographic characteristics of the survey participants. In the questionnaire, the twenty-five questions measuring patient-physician relationship are grouped into five domains. Each domain consists of five questions.

The domains are as follows:

- 1) Patient's Self Care
- 2) Doctor's Self-care
- 3) Patient cares about the doctor
- 4) Patient empathy for the doctor
- 5) Doctor cares about the patient.

Response options have nine levels of agreement with each statement from “Strongly Disagree” to “Strongly Agree.” The patient-physician relationship score is the numerical continuous variable, which is a dependent variable. In the self-administered survey questionnaire, the socio-demographic questions refer to sex, age, marital status, socio-economic status, and educational status. The self-administered questionnaire will take about 10 minutes to complete and provides anonymity. To preserve the anonymity, no personal identification information will be collected. Instead, each questionnaire will have a special identification number. The special identification number will consist of six characters. The first character of the identification number will feature one English alphabet, i.e. “H” or “M”. Latter is to represent the polyclinic where the survey participant took the survey. The second character of the identification number will feature one Arabic number, i.e. “0” or “1” or “2”. The numbers “0” represent the baseline assessment and, “1” and “2” represent two follow-up assessments respectively. The other four characters of the identification number will feature Arabic numbers, which will be the numbers of the survey participant. For example, if

“H20604” is the special identification number on the questionnaire, then it implies that the survey participant is from Heratsi polyclinic, who took the survey in second follow-up assessment as 604th participant.

The self-administered survey questionnaire was translated from English into Armenian by two different certified translators and later both copies of the Armenian versions were compared, the most appropriate translated version was considered. The Armenian version of the questionnaire content consistency was reviewed by second year Masters of Public Health program’s students at AUA who are Armenian native speakers. The translated Armenian version of the self-administered survey questionnaire will be pretested among ten participants. The pretest will be conducted among the patients who visited family physicians in a selected polyclinic.

3.3.4 Variables

The dependent variable of interest is Patient-Physician Relationship percent score, which is a numerical continuous outcome variable (Table 2). It is measured through 25 questions. The response options for each statement consists of nine levels of agreement between “Strongly Disagree” to “Strongly Agree”. The patient-physician relationship score ranging from 25-225 from the questionnaire will be re-calculated to patient-physician relationship percent score ranging from 11% to 100%.

The main independent variable of interest is being from Heratsi (intervention) or Muratsan (comparison) polyclinics. It is a nominal dichotomous type of variable. The special identification number of the questionnaire will identify the information.

The control variables suggested by literature include: participant’s sex, age, socio-economic status, educational status, and marital status.^{31,35,38,39} Literature shows that the above-mentioned control variables can influence the desired outcome of variable.^{31,35,38,39}

3.3.5 Analysis

Once the supporting staff collects the data from survey participants, data entry will be carried out. In order to reduce the errors during the data entry, there will be cross checking of entered data by the project coordinator. The patient-physician relationship score from the questionnaire will be calculated into patient-physician relationship percent score.

Exploratory analysis will be done to clean the data by finding the missing values, outliers, and distribution of variables. Analysis will include descriptive analysis, independent T-test for continuous variables, Chi Square (χ^2) test for dichotomous variables, bivariate linear regression analysis and multivariate linear regression analysis.

4. Timeline

The proposed pilot project is planned to run for fourteen months, starting from June 2015 until August 2016. The physician leadership development program will be conducted for two months in the month of September and October 2015. The evaluation process will be conducted in three different duration, for baseline (O_0) and follow-up (O_1), (O_2) assessments (Appendix 5).

5. Budget

The total budget is estimated to be six million seven thousand eight hundred Armenian Drams (6,007,800.00 AMD) to implement this grant proposal (Appendix 6). The estimated budget for this grant proposal is calculated based on optimal fixed and overhead costs. The office and classroom for the program implementation, the classroom of 18 seating capacity is considered as an optimal. The rents are calculated as per AUA facilities' rental fees.⁴⁰ The costing is calculated for this proposal according to the average salaries for the personnel and type of services performed paid in the Armenian market as per May 2015.

6. Ethical Considerations

6.1 Human Subject

For the evaluation process, family physicians' patients are the participants of the survey. The instrument is a self-administrated survey questionnaire. The participants are human subjects, age over eighteen years and under sixty-five years old. The participation in the survey is voluntary, and the survey participants can refuse to answer any questions or quit completing the questionnaire at any point in time. The American University of Armenia Institutional Review Board reviewed and approved the study protocol.

6.2 Community Support

The project team will get an approval from the Ministry of Health and Yerevan State Medical University, which administers Heratsi and the Muratsan polyclinics.

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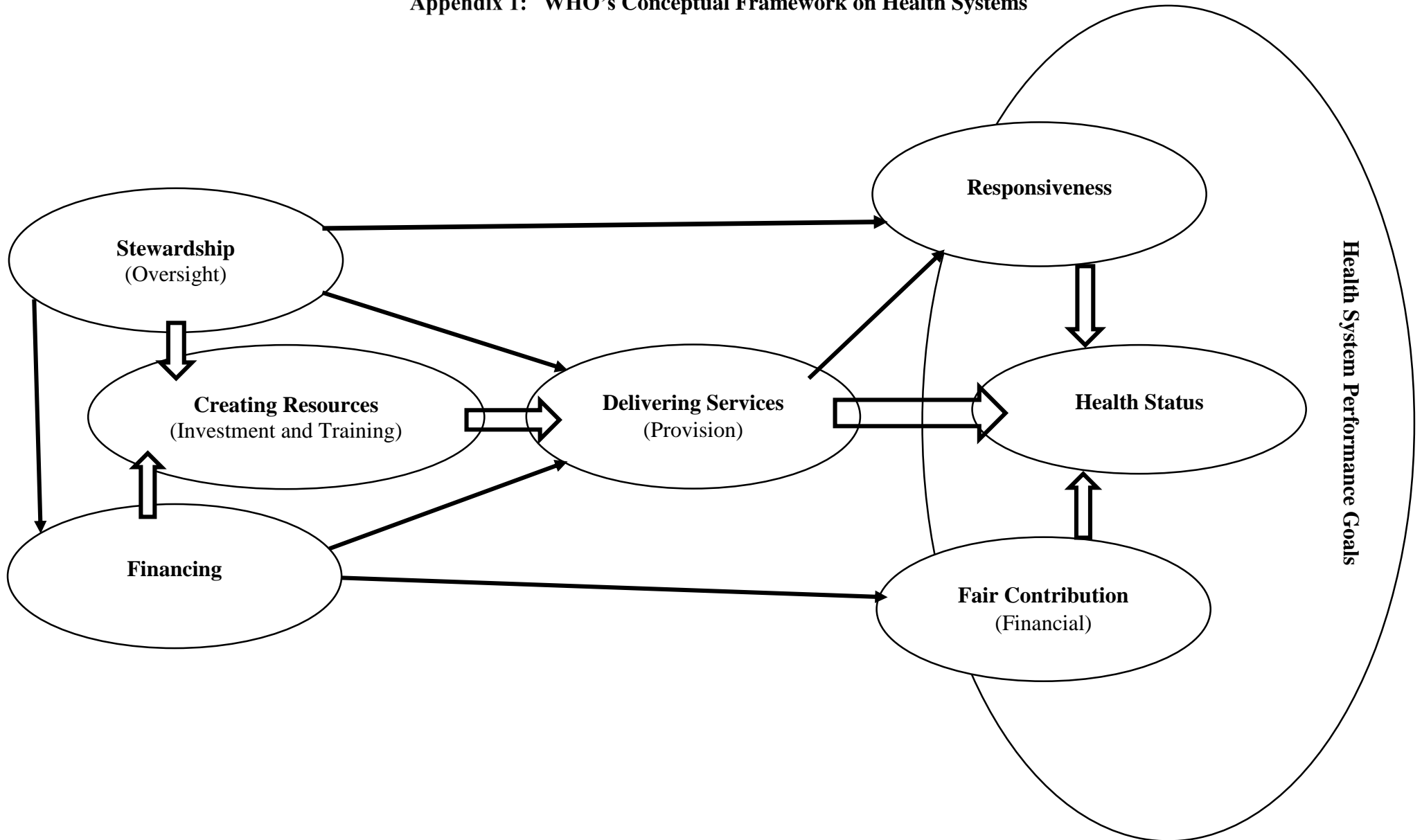
Table 1: Inclusion and Exclusion Criteria for the survey participants

Group	Inclusion Criteria	Exclusion Criteria
Baseline Assessment (O₀) August 2015	<ul style="list-style-type: none"> a) Patients registered with Heratsi or Muratsan polyclinics b) Patients over the age of eighteen years old and under sixty five years old c) Patients visiting family physicians 	
Additional Criteria for the Follow-up Assessment (O₁) December 2015		<ul style="list-style-type: none"> a) Patients who registered with these polyclinics after August 2015 b) Patients who participated in the baseline assessment (O₀)
Additional Criteria for the Follow-up Assessment (O₂) June 2016		<ul style="list-style-type: none"> a) Patients who registered with these polyclinics after August 2015 b) Patients who participated in the baseline assessment (O₀) and the follow-up assessment (O₁)

Table 2: Variables and Sources of Data

Variables	Type	Measure	Sources
Dependent Variable Patient-Physician Relationship percent score	Numerical (Continuous)	Percent score (Minimum – 11% Maximum – 100%)	Self-administered questionnaire
Independent Variable Patients being from Intervention or Comparison polyclinics	Nominal (Dichotomous)	Patients of Family Physician from Heratsi or Muratsan	Self-administered questionnaire
Control Variables			
Age	Numeric (Continuous)	Age in Years	Self-administered questionnaire
Sex	Nominal (Dichotomous)	“Male” Or “Female.”	Self-administered questionnaire
Marital Status	Nominal	1) Single 2) Married 3) Widowed 4) Divorced	Self-administered questionnaire
Social-economic Status	Ordinal	1) Less than 50,000 drams 2) From 50,001 - 100,000 drams 3) From 100,001 - 200,000 drams 4) From 200,001 - 300,000 drams 5) Above 300,000 drams	Self-administered questionnaire
Educational Status	Ordinal	1) Incomplete secondary (less than 10 years) 2) School (10 years) 3) Professional technical (10-13) 4) Institute/University 5) Post-graduate	Self-administered questionnaire

Appendix 1: WHO's Conceptual Framework on Health Systems



Appendix 2: Program Curriculum Guide

Physician Leadership Development Program

Curriculum Guide

Unit - Physician Leadership Development Program

Educator - Physicians with MPH degree, who underwent training of trainers (TOT) course

Participants - Family physicians from primary healthcare centers

Settings - The classes will be conducted in classrooms at American University of Armenia

Goal - To develop leadership skills for implementing in the healthcare settings in terms of

- Demonstrating personal qualities,
- Working with others,
- Managing services,
- Improving Services,
- Setting direction.

Competency/Objectives - By the end of the program the family physicians will be able to:

- Understand the significance of personal qualities and apply them in terms of acting with integrity,
- Employ the skills of building relationships and encouraging contribution,
- Use the skills of planning and managing resources, people and performance,
- Promote to innovation and apply the skills of critical evaluation,
- Analyze knowledge and evidence to making decisions and evaluating impact.

Teaching Techniques

- Delivering interactive lectures,
- Initiating group/pair discussions among the family physicians,
- Demonstrating videos for analyzing cases,
- Organizing debates,
- Providing real scenarios for solving problems
- Delivering worksheets for matching, gap-filling and open-ended exercises,
- Doing self-assessment.

Package to the participants - Pens, lecture notes, notebooks.

Package to the educator - Lecture notes, board, markers, projector, and loudspeakers.

Introduction Session

Introduction to the Edward Jenner Programme: Leadership Foundations

Description

Working in a new healthcare role can be challenging, however, we know that with the right support and guidance clinicians can feel better equipped to care for patients and to lead healthcare services. High quality, safe patient care is of primary importance. Patients recognize and value compassionate care and the vital role that clinicians like you offer them. They appreciate that clinicians need to continually learn in order to improve services for patients.

The Edward Jenner programme aims to improve the confidence and competence of clinicians as well as improving the quality and safety of patient care. Throughout this programme, there are opportunities for you to reflect on your experiences so that you can use this learning as part of your continuing professional development.

Module 1. Session 1

Demonstrating Personal Qualities: Developing Self-awareness

Description

This session will discuss the importance of developing self-awareness in healthcare and ways to enhance your own self-awareness in your practice to further your development.

Learning Objectives

This session will support you to:

- Recognize and articulate your own values and principles, understanding how these may differ from those of other individuals and groups
- Identify your own strengths and limitations, the impact of your behavior on others, and the effect of stress on your behavior
- Identify your own emotions and prejudices and understand how these may affect your judgment and behavior
- Obtain, analyze and act on feedback from a variety of sources

Module 1. Session 2

1.2 Demonstrating Personal Qualities: Managing Yourself

Description

This session will explore organizing and managing yourself whilst taking account of the needs and priorities of others.

Learning Objectives

This session will support you to:

- Manage the impact of your emotions on your behavior with consideration of the impact on others
- Be reliable in meeting your responsibilities and commitments to consistently high standards
- Ensure that your plans and actions are flexible, and take account of the needs and work patterns of others
- Plan your own workload and activities to fulfil work requirements and commitments, without compromising your health

Module 1. Session 3

1.3 Demonstrating Personal Qualities: Continuing Personal Development

Description

Embracing lifelong learning as a dynamic process that can positively influence practice and healthcare is an essential aspect of on-going development for all professions involved in healthcare.

Learning Objectives

This session will support you to:

- Actively seek opportunities and challenges for personal learning and development
- Acknowledge mistakes and treat them as learning opportunities
- Participate in continuing professional development activities
- Change your behavior in the light of feedback and reflection

Module 1. Session 4.

1.4 Demonstrating Personal Qualities: Acting with Integrity

Description

This session will encourage you to further explore acting with integrity, behaving in an open, honest and ethical manner, as a healthcare practitioner.

Learning Objectives

This session will support you to:

- Uphold personal and professional ethics and values, taking into account the values of the organization and respecting the culture, beliefs and abilities of individuals
- Communicate effectively with individuals, appreciating their social, cultural, religious and ethnic backgrounds and their age, gender and abilities
- Value, respect and promote equality and diversity
- Take appropriate action if ethics and values are compromised

Module 2. Session 1

2.1 Working with Others: Developing Networks

Description

This session will increase your knowledge in the importance of developing networks and how your role as a registered practitioner can impact on patient care and the service which you provide. Multi-professional working and learning is essential for any healthcare practitioner. Networking gives you the opportunity to not only work alongside colleagues and other professionals, but also to understand different perspectives in care delivery (including patients and carers)

Learning Objectives

This session will support you to:

- Identify opportunities where working with patients and colleagues in the clinical setting can bring added benefits
- Create opportunities to bring individuals and groups together to achieve goals
- Promote the sharing of information and resources
- Actively seek the views of others

Module 2. Session 2

2.2 Working with Others: Building and Maintaining Relationships

Description

The aim of this session is to enhance your knowledge and appreciation of the importance of building and maintaining relationships as a newly qualified, or new to role healthcare professional, including the positive impact relationships can have on the quality of patient care and safety.

Learning Objectives

This session will support you to:

- Listen to others and recognize different perspectives
- Empathize and take into account the needs and feelings of others
- Communicate effectively with individuals and groups, and act as a positive role model
- Gain and maintain the trust and support of colleagues

Module 2. Session 3

2.3 Working with Others: Encouraging Contribution

Description

This session will discuss creating an environment where others have the opportunity to contribute and how you might encourage others to contribute from various backgrounds. We will also investigate the hurdles which you may encounter when encouraging contribution.

Learning Objectives

This session will support you to:

- Provide encouragement, and the opportunity for people to engage in decision making and to challenge constructively
- Respect, value and acknowledge the roles, contributions and expertise of others
- Employ strategies to manage conflict of interests and differences of opinion
- Keep the focus of contribution on delivering and improving services to patients

Module 2. Session 4.

2.4 Working with Others: Working within Teams

Description

This session will support you in your team to deliver and improve services.

Learning Objectives

This session will support you to:

- Have a clear sense of your role, responsibilities and purpose within the team
- Adopt a team approach, acknowledging and appreciating efforts, contributions and compromises
- Recognise the common purpose of the team and respect team decisions
- Lead a team, involving the right people at the right time

Module 3. Session 1.

3.1 Managing Services: Planning

Description

This session will enable you to contribute to the planning aspects of managing services. It will highlight who is involved, where you are in the process and what you can do to make a difference to your patient care.

Learning Objectives

This session will support you to:

- Identify the local strategy for the wider healthcare system and where your involvement supports plans for clinical services
- Gather feedback from patients, service users and colleagues to help develop plans
- Contribute their expertise to organizational planning processes
- Appraise options for planning services in terms of the benefits and risks

Module 3. Session 2

3.2 Managing Services: Managing Resources

Description

This session will help you to understand what resources are available and how to use your influence to ensure that they are used efficiently and safely whilst reflecting the diversity of needs.

Learning Objectives

This session will support you to:

- Accurately identify the appropriate type and level of resources required to deliver safe and effective services
- Ensure services are delivered within allocated resources
- Minimize waste
- Take action when resources are not being used efficiently and effectively

Module 3. Session 3

3.3 Managing Services: Managing People

Description

This session will give an overview of processes involved in managing people to enable you to provide direction, review performance, motivate others and promote equality and diversity.

Learning Objectives

This session will support you to:

- Provide guidance and direction for others using the skills of team members effectively
- Review the performance of the team members to ensure that planned service outcomes are met
- Support team members to develop their roles and responsibilities
- Support others to provide good patient care and better services

Module 3. Session 4

3.4 Managing Services: Managing Performance

Description

This session will discuss why measuring performance is a key part of delivering high quality, effective and safe services. It will help you consider how to improve performance and give some ideas for how to take this forward.

Learning Objectives

This session will support you to:

- Analyze information from a range of sources about performance
- Take action to improve performance
- Take responsibility for tackling difficult issues
- Build learning from experience into future plans

Module 4. Session 1

4.1 Improving Services: Ensuring Patient Safety

Description

This session will provide information about minimizing the risk to patient safety through deliverance of evidence based practice within the healthcare environment. It will discuss how this can improve the quality of care given to patients through root-cause analysis, risk assessment and will also consider how healthcare professionals can reflect on lessons learnt following patient safety incidents.

Learning Objectives

This session will support you to:

- Identify and quantify the risk to patients using information from a range of sources
- Use evidence, both positive and negative, to identify options
- Use systematic ways of assessing and minimizing risk
- Monitor the effects and outcomes of change

Module 4. Session 2.

4.2 Improving Services: Critically Evaluating

Description

This session will encourage you to think analytically and conceptually and to identify where services can be improved, working individually or as part of a team.

Learning Objectives

This session will support you to:

- Obtain and act on patient, carer and user feedback and experiences
- Assess and analyse processes using up-to-date improvement methodologies
- Identify healthcare improvements and create solutions through collaborative working
- Appraise options, plan and take action to implement and evaluate improvements
- Critical Evaluation

Module 4. Session 3

4.3 Improving Services: Encouraging Improvement and Innovation

Description

This session will explore ways to support the creation of a climate of continuous service improvement.

Learning Objectives

This session will support you to:

- Question the status quo
- Act as a positive role model for innovation
- Encourage dialogue and debate with a wide range of people
- Develop creative solutions to transform services and care

Module 4. Session 4

4.4 Improving Services: Facilitating Transformation

Description

This session will look at actively contributing to change processes that lead to improving healthcare.

Learning Objectives

This session will support you to:

- Model the expected change
- Articulate the need for change and its impact on people and services
- Promote changes leading to systems redesign
- Motivate and focus a group to accomplish change

Module 5. Session 1.

5.1 Setting Direction: Identifying the Contexts for Change

Description

This session will help you explore how to be aware of the range of factors to be taken into account when identifying the contexts for change.

Learning Objectives

This session will support you to:

- Demonstrate awareness of the political, social, technical, economic, organizational and professional environment
- Understand and interpret relevant legislation and accountability frameworks
- Anticipate and prepare for the future by scanning for ideas, best practice and emerging trends that will have an impact on health outcomes
- Develop and communicate aspirations

Module 5. Session 2.

5.2 Setting Direction: Applying Knowledge and Evidence

Description

This session will support you in gathering information to produce an evidence-based challenge to systems and processes, in order to identify opportunities for service improvements.

Learning Objectives

This session will support you to:

- Use appropriate methods to gather data and information
- Carry out analysis against an evidence based criteria set
- Use information to challenge existing practices and processes
- Influence others to use knowledge and evidence to achieve best practice

Module 5. Session 3

5.3 Setting Direction: Making Decisions

Description

This session will explore how to use your professional values, and the evidence to make good decisions.

Learning Objectives

This session will support you to:

- Participate in and contribute to organizational decision making processes
- Act in a manner consistent with the values and priorities of your organization and profession
- Educate and inform key people who influence and make decisions
- Contribute a clinical perspective to team, department, system and organizational decisions

Module 5. Session 4.

5.4 Setting Direction: Evaluating Impact

Description

This session will explore how outcomes are measured and evaluated in practice, how to take corrective action where necessary and how to justify your decisions

Learning Objectives

This session will support you to:

- Test and evaluate new service options
- Standardize and promote new approaches
- Overcome barriers to implementation
- Formally and informally disseminate good practice

Appendix 3: Questionnaire: English Version

I	D						
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D	D	M	M	Y	Y
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Self-Administered Survey Questionnaire

Instructions:

The questionnaire consists of 30 questions. Please, check or circle the appropriate answer. You should check it by circling the bullet sign before an appropriate answer.

Demographics Data:

1) My gender is

A. Male

B. Female

2) My date of birth is _____ (dd/mm/yy)

Patient's self-care: (Please rate the level of your agreement with each of the statements below choosing the numbers on the line)

3) My health is important to me

Strongly Disagree Strongly Agree

(1) (2) (3) (4) (5) (6) (7) (8) (9)

4) I lead a healthy lifestyle

Strongly Disagree Strongly Agree

(1) (2) (3) (4) (5) (6) (7) (8) (9)

5) I understand my health needs

Strongly Disagree Strongly Agree

(1) (2) (3) (4) (5) (6) (7) (8) (9)

6) I share responsibility for my health care

Strongly Disagree Strongly Agree

(1) (2) (3) (4) (5) (6) (7) (8) (9)

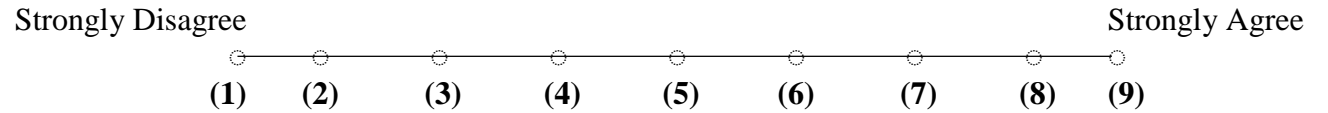
7) I respect my doctor's advice

Strongly Disagree Strongly Agree

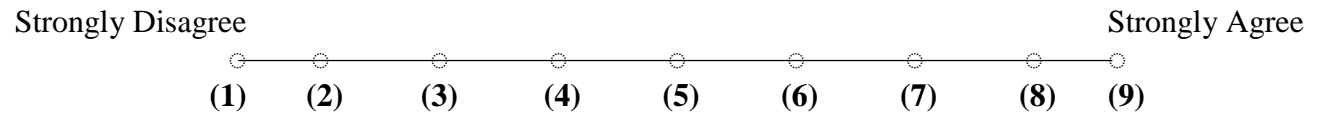
(1) (2) (3) (4) (5) (6) (7) (8) (9)

Doctor self-cares: (Please rate the level of your agreement with each of the statements below choosing the numbers on the line)

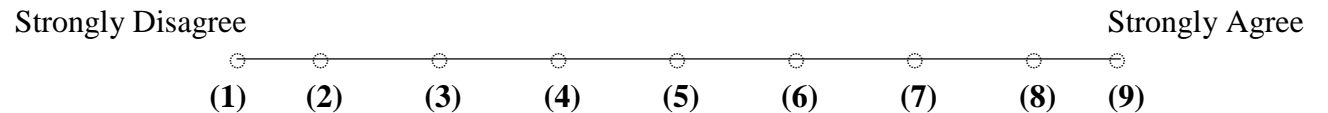
8) My doctor appears calm



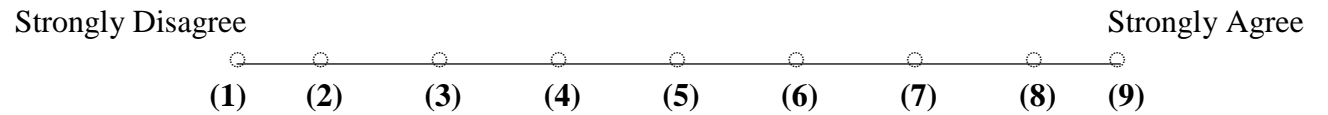
9) My doctor seems to look after her or his needs



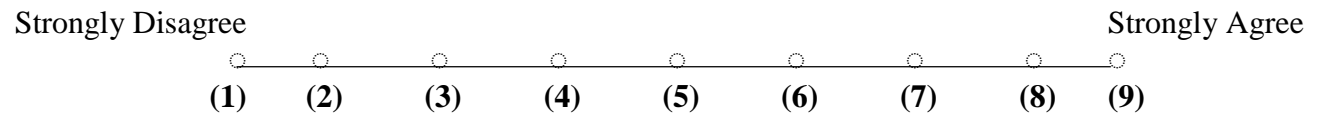
10) My doctor looks healthy



11) My doctor demonstrates healthy behavior

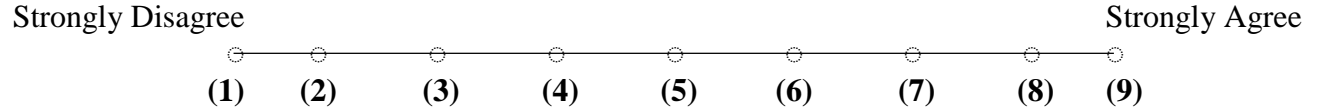


12) My doctor appears happy

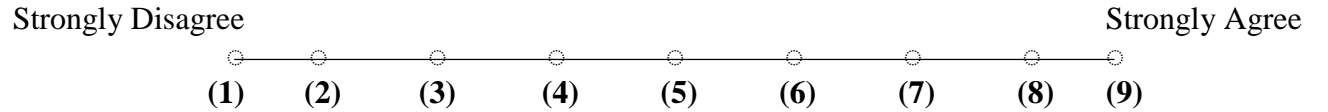


Patient cares about the doctor: (Please rate the level of your agreement with each of the statements below choosing the numbers on the line)

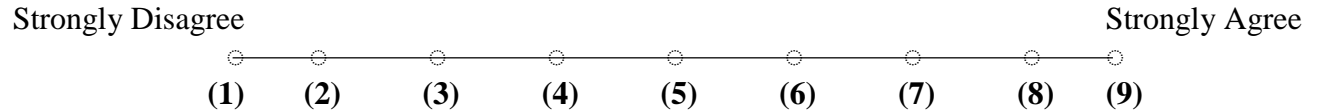
13) I am considerate of my doctor's needs



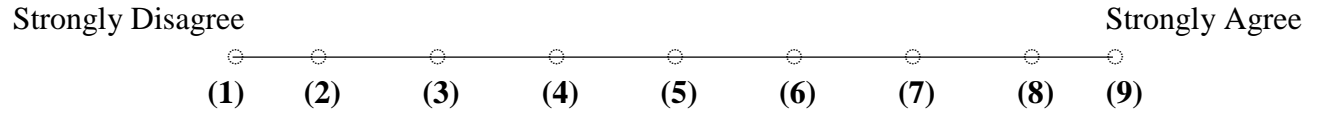
14) I have realistic expectations of my doctor



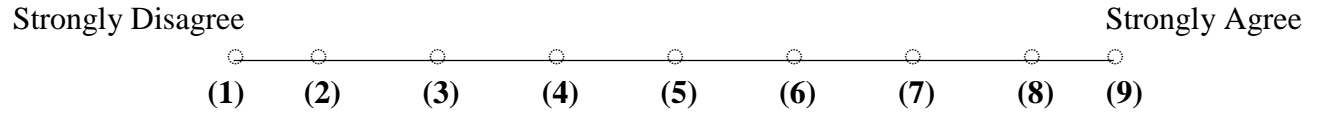
15) I advise my doctor on how to care for me



16) I show my doctor that I appreciate what she or he does for me

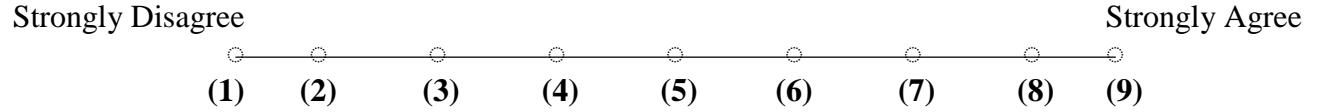


17) I understand when my doctor runs late

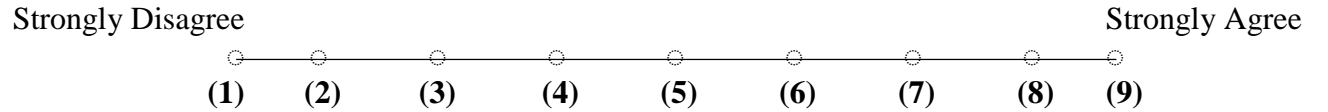


Patient empathy for the doctor: (Please rate the level of your agreement with each of the statements below choosing the numbers on the line)

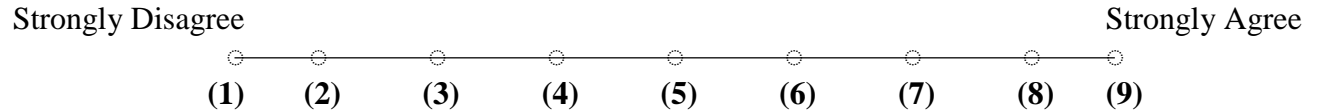
18) I see my doctor as a person



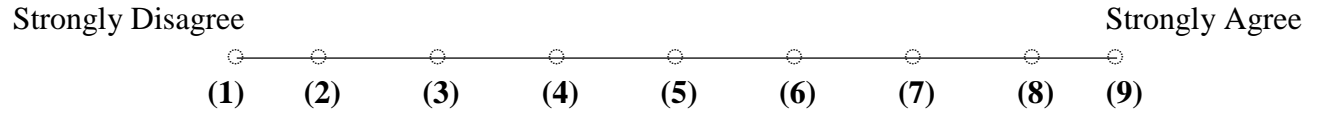
19) I try to imagine myself in my doctor's situation



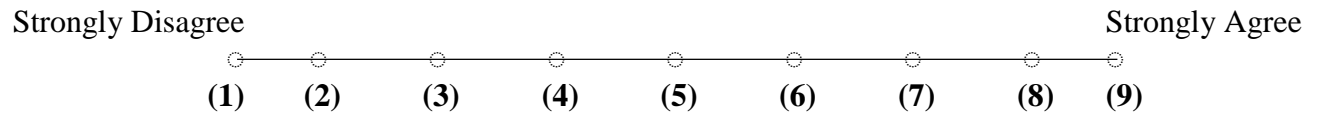
20) I try to see things from my doctor's perspective



21) I see my doctor in myself

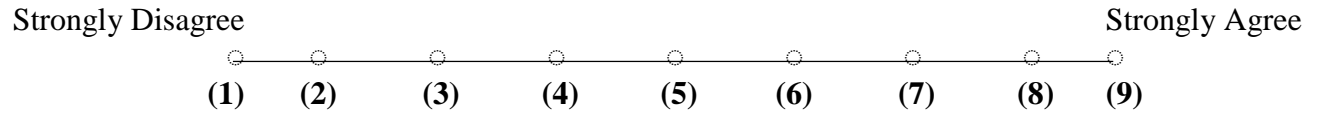


22) I identify with my doctor by caring about myself

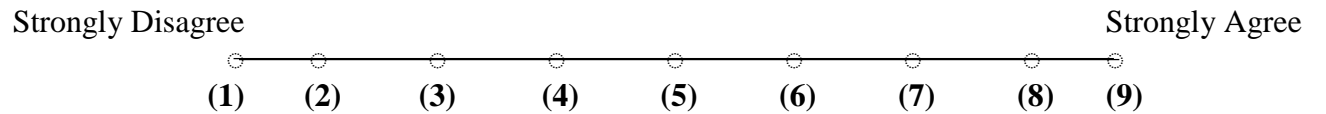


Doctor cares about the patient: (Please rate the level of your agreement with each of the statements below choosing the numbers on the line)

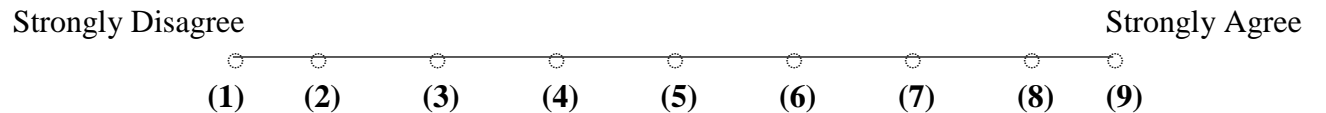
23) My doctor cares about me as a person



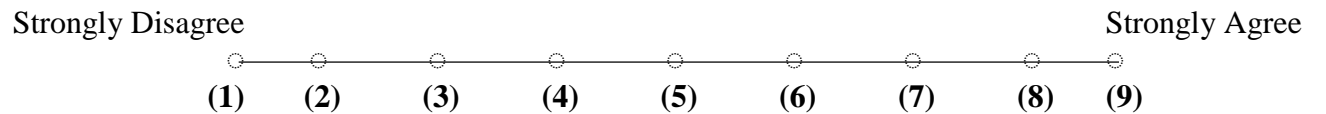
24) My doctor is an effective doctor



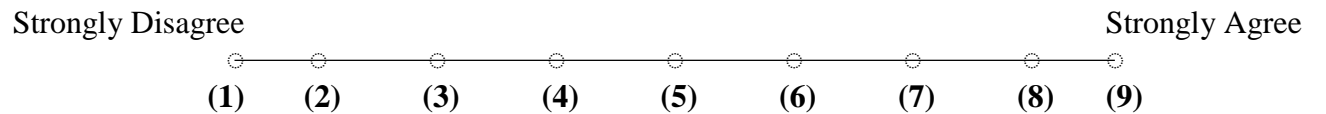
25) My doctor gives me the time I need



26) My doctor helps me understand my problem or illness



27) My doctor shares decision-making with me on how to manage my problem or illness



28) My current marital status is

- 1) Single
- 2) Married
- 3) Widowed
- 4) Divorce

29) On average my household expenditure per month is

- 1) Less than 50,000 drams
- 2) From 50,001 - 100,000 drams
- 3) From 100,001 - 200,000 drams
- 4) From 200,001 - 300,000 drams
- 5) Above 300,000 drams

30) My completed educational level is

- 1) Incomplete secondary (less than 10 years)
- 2) School (10 years)
- 3) Professional technical (10-13)
- 4) Institute/ University
- 5) Post-graduate

Appendix 4: Questionnaire: Armenian Version

I	D						
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D	D	M	M	Y	Y
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Ինքնուրույն լրացնելու համար նախատեսված հարցաշար

Ցուցումներ:

Հարցաթերթը բաղկացած է 30 հարցերից: Ընտրեք համապատասխան պատասխանը՝ շրջանի մեջ առնելով այն:

Անձնական տվյալներ:

1) Իմ սեռ՝

1. Արական

2. Իգական

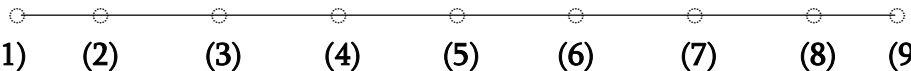
2) Իմ ծննդյան ամսաթիվը _____ (օր/ամիս/տարի)

Որքանով է հիվանդը հետևում իր առողջությանը:

(Խնդրում ենք գնահատեք ձեր համաձայնության աստիճանը ստորև նշված արտահայտությունների հետ՝ նշելով գծի վրայի թվերը)

1) Իմ առողջությունը կարևոր է ինձ համար

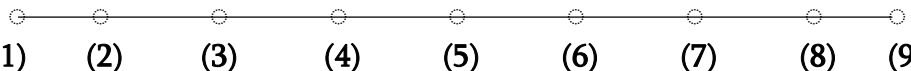
Ամեննին
համաձայն չեմ



Լիովին
համաձայն եմ

2) Ես առողջ կենսակերպ եմ վարում

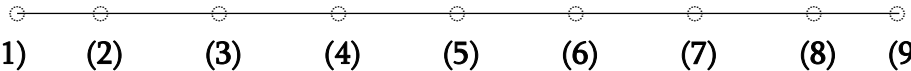
Ամեննին
համաձայն չեմ



Լիովին
համաձայն եմ

3) Ես գիտակցում եմ իմ առողջական կարիքները

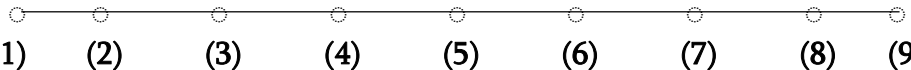
Ամեննին
համաձայն չեմ



Լիովին
համաձայն եմ

4) Ես կիսում եմ պատասխանատվությունը իմ առողջության համար

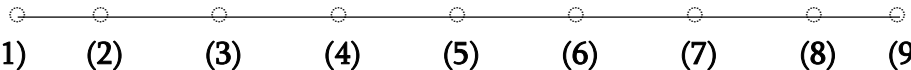
Ամեննին
համաձայն չեմ



Լիովին
համաձայն եմ

5) Ես հարգում եմ բժշկիս խորհուրդը

Ամեննին
համաձայն չեմ

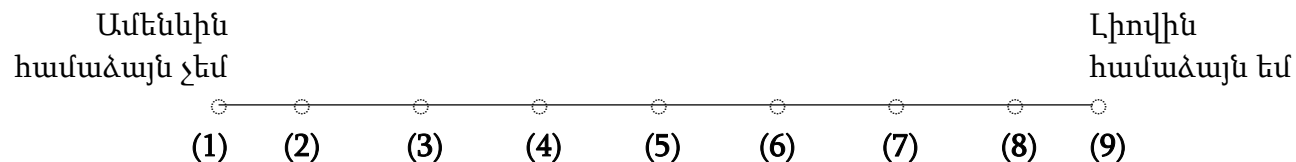


Լիովին
համաձայն եմ

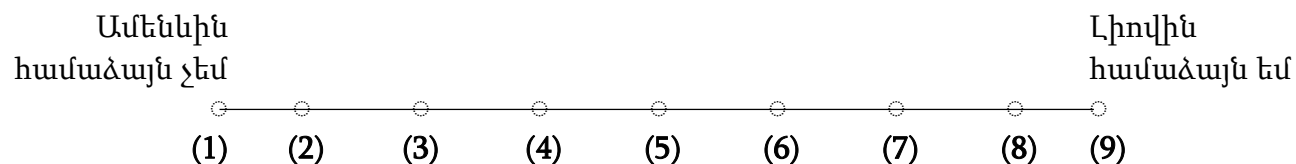
Որքանով է բժիշկը հետևում իր առողջությանը:

(Խնդրում ենք գնահատել ձեր համաձայնության աստիճանը ստորև նշված արտահայտությունների հետ՝ նշելով զծի վրայի թվերը)

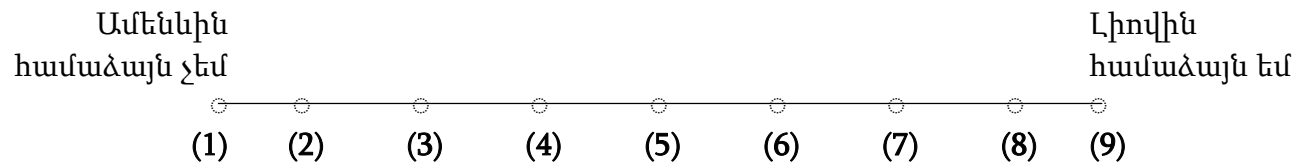
6) Բժիշկս հանդարտ տեսք ունի



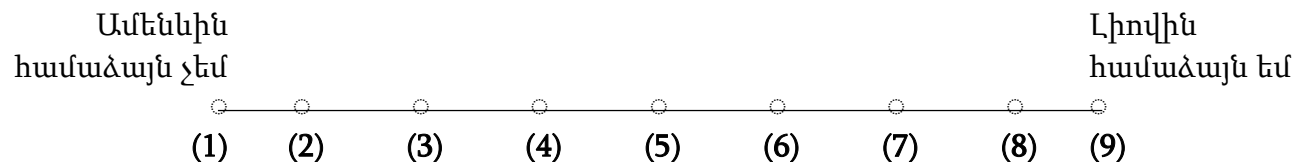
7) Բժիշկս հետևողական է իր կարիքների նկատմամբ



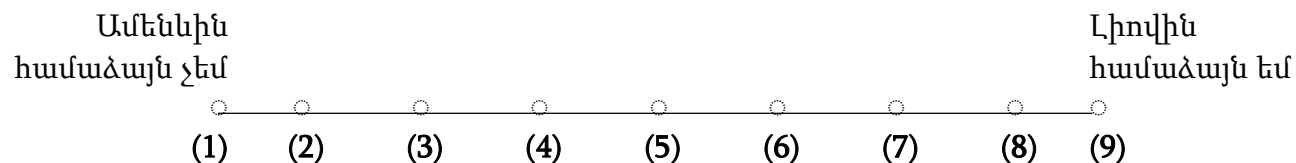
8) Բժիշկս առողջ տեսք ունի



9) Բժիշկս առողջ վարվելակերպ է ցուցաբերում



10) Բժիշկս երջանիկ տեսք ունի



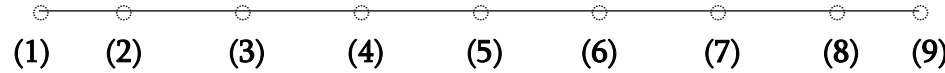
Որքանով է հիվանդը հոգատար բժշկի նկատմամբ:

(Խնդրում ենք գնահատելք ձեր համաձայնության աստիճանը ստորև նշված արտահայտությունների հետ՝ նշելով գծի վրայի թվերը)

11) Ես հաշվի եմ առնում բժշկի կարիքները

Ամեննին
համաձայն չեմ

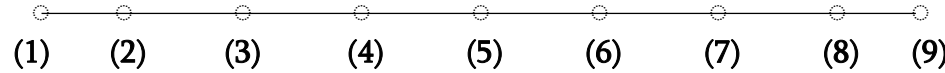
Լիովին
համաձայն եմ



12) Ես իրատեսական ակնկալիքներ ունեմ բժշկիցս

Ամեննին
համաձայն չեմ

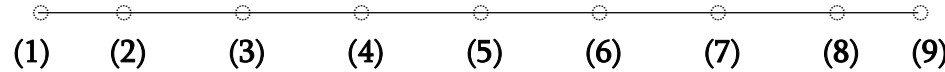
Լիովին
համաձայն եմ



13) Ես բժշկի խորհուրդներ եմ տալիս իմ խնամքի վերաբերյալ

Ամեննին
համաձայն չեմ

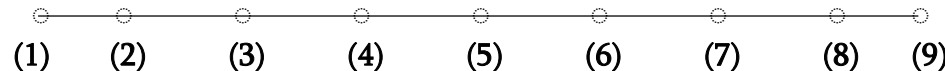
Լիովին
համաձայն եմ



14) Ես ցույց եմ տալիս բժշկիս, որ գնահատում եմ ինձ համար իր արածները

Ամեննին
համաձայն չեմ

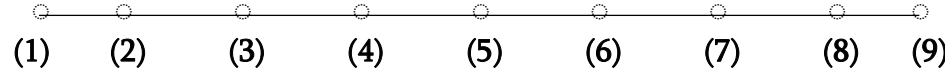
Լիովին
համաձայն եմ



15) Ես հասկանում եմ, երբ բժիշկս ինչ-որ բանից ուշանում է

Ամեննին
համաձայն չեմ

Լիովին
համաձայն եմ



Որքանով է հիվանդը կարեկցում բժշկին:

(Խնդրում ենք գնահատելք ձեր համաձայնության աստիճանը ստորև նշված արտահայտությունների հետ՝ նշելով գծի վրայի թվերը)

16) Ես բժշկիս դիտարկում եմ որպես անձ	Ամեննին համաձայն չեմ ○-----○-----○-----○-----○-----○-----○-----○-----○ (1) (2) (3) (4) (5) (6) (7) (8) (9) Լիովին համաձայն եմ
17) Ես փորձում եմ ինձ բժշկիս կարգավիճակում պատկերացնել	Ամեննին համաձայն չեմ ○-----○-----○-----○-----○-----○-----○-----○-----○ (1) (2) (3) (4) (5) (6) (7) (8) (9) Լիովին համաձայն եմ
18) Ես փորձում եմ իրավիճակին նայել բժշկիս տեսանկյունից	Ամեննին համաձայն չեմ ○-----○-----○-----○-----○-----○-----○-----○-----○ (1) (2) (3) (4) (5) (6) (7) (8) (9) Լիովին համաձայն եմ
19) Ես իմ մեջ տեսնում եմ բժշկիս	Ամեննին համաձայն չեմ ○-----○-----○-----○-----○-----○-----○-----○-----○ (1) (2) (3) (4) (5) (6) (7) (8) (9) Լիովին համաձայն եմ
20) Իմ մասին հոգ տանելով ես ինձ բժշկիս հետ համախոհ եմ զգում	Ամեննին համաձայն չեմ ○-----○-----○-----○-----○-----○-----○-----○-----○ (1) (2) (3) (4) (5) (6) (7) (8) (9) Լիովին համաձայն եմ

Որքանով է բժիշկը հոգատար հիվանդի նկատմամբ:

(Խնդրում ենք գնահատելք ձեր համաձայնության աստիճանը ստորև նշված արտահայտությունների հետ՝ նշելով գծի վրայի թվերը)

21) Բժիշկս հոգ է տանում իմ մասին որպես անձ	<p>Ամեննին համաձայն չեմ</p> <p>(1) (2) (3) (4) (5) (6) (7) (8) (9)</p>	<p>Լիովին համաձայն եմ</p>
22) Բժիշկս շատ արդյունավետ բժիշկ է	<p>Ամեննին համաձայն չեմ</p> <p>(1) (2) (3) (4) (5) (6) (7) (8) (9)</p>	<p>Լիովին համաձայն եմ</p>
23) Բժիշկս ինձ հատկացնում է ինձ անհրաժեշտ ժամանակը	<p>Ամեննին համաձայն չեմ</p> <p>(1) (2) (3) (4) (5) (6) (7) (8) (9)</p>	<p>Լիովին համաձայն եմ</p>
24) Բժիշկս օգնում է ինձ հասկանալ իմ խնդիրը համ հիվանդությունը	<p>Ամեննին համաձայն չեմ</p> <p>(1) (2) (3) (4) (5) (6) (7) (8) (9)</p>	<p>Լիովին համաձայն եմ</p>
25) Բժիշկս խորհրդակցում է ինձ հետ իմ խնդրի կամ հիվանդության բուժման ընթացքի մասին	<p>Ամեննին համաձայն չեմ</p> <p>(1) (2) (3) (4) (5) (6) (7) (8) (9)</p>	<p>Լիովին համաձայն եմ</p>

26) Իմ ամուսնական կարգավիճակը՝

- 1) Չամուսնացած
- 2) Ամուսնացած
- 3) Այրի/ամուրի
- 4) Ամուսնալուծված

27) Իմ ընտանիքի միջին ամսական ծախսերը կազմում են՝

- 1) 50.000 դրամից պակաս
- 2) 50,001 - 100,000 դրամ
- 3) 100,001 - 200,000 դրամ
- 4) 200,001 - 300,000 դրամ
- 5) 300,000 դրամից ավել

28) Իմ կրթությունը՝

- 1) Թերի միջնակարգ (10 տարուց պակաս)
- 2) Միջնակարգ (10 տարի)
- 3) Մասնագիտական (ոչ բարձրագույն) կրթություն (10-13)
- 4) Բարձրագույն
- 5) Հետբուհական (գիտական աստիճան հետապնդող)

Appendix 5: Timeline

Month/Year Activities	June 2015	July 2015	August 2015	September 2015	October 2015	December 2015	June 2016	July 2016	August 2016
Contacting MoH, MoES, & YSMU		X							
Recruiting program coordinator	X								
Collect data about patients registered in polyclinics		X							
Recruiting trainers & supporting staff		X							
Training of supporting staff		X							
Trainers completing the online Edward Jenner Program			X						
Trainers complete the translation of educational materials			X						
Questionnaire pretest		X							
Baseline assessment			X						
Program implementation				X	X				
First follow-up assessment						X			
Second follow-up assessment							X		
Data entry			X			X	X		
Data analysis				X			X	X	
Final report writing									X

Appendix 6: Budget in Armenian Drams (AMD)

Budget Item	Type of appointment	Type of Appointment	Number of Units	Amount/Unit	Total
Personnel Fee					
Project Coordinator	Full Time	Fixed Monthly	14	150,000.00	2,100,000.00
Training Personnel (For taking the online Edward Jenner Program and translating the materials)	Fixed Hours (Flexible)	One Time	2	150,000.00	300,000.00
Training Personnel (For preparing and conducting the sessions)	Fixed Hours	Hourly	63*	10,000.00	630,000.00
Supporting Staff (For conducting the survey)	Flexible	Each Completed Questionnaire	1018	150.00	152,700.00
Supporting Staff (Transport compensation for conducting the survey)	Flexible	Day	90	400.00	3,600.00
Supporting Staff (Data Entry and Cleaning)	Part-Time	Hour	90†	1,500.00	135,000.00
Sub Total					3,321,300.00

* 63 Hours = (21 session) * (each session 1.5 hr.) * (two cohort)

† 90 Hours = (1080 questionnaires) * (5 Minutes/questionnaire)

Budget Item	Type of appointment	Type of Appointment	Number of Units	Amount/Unit	Total
Overhead Costs					
Administrative Costs					
Class Room Rentⁱ	Flexible Fixed Hours	Hourly	63	10,000.00	630,000.00
Office Room Rent	Full Time	Monthly	14	120,000.00	1,680,000.00
Paper Cost & Print	N.A	Per Piece	5000	10.00	50,000.00
Office Supplies	N.A.	N.A.	N.A.	100,000.00	100,000.00
Communication Costs					
Phone Land Line & Internet	Full Time	Monthly	14	15,000.00	210,000.00
Mobile Phone	Part Time	Monthly	3	5,500.00	16,500.00
Sub Total					2,686,500.00
Grand Total[#]					6,007,800.00

#Grand Total includes Income Tax and VAT

ⁱ 18 Person Seminar Room

Appendix 7: Consent Form: English Version

American University of Armenia Institutional Review Board #1 Oral Consent Form

Hello,

My name is _____, and I have approached you on behalf of Balu Vignesh Thavidu Rajan. There was physicians' leadership development training program for the family physicians. For that program, he is conducting a survey to investigate the outcomes as a part of evaluation plan. You have been contacted randomly as a person who visited family physicians at the Heratsi or Muratsan polyclinics. The Polyclinic Administration gave permission to conduct this survey.

If you are willing to participate in this survey, you will be asked to complete a self-administrated questionnaire about your and your physician's relationship. The completion of survey might take approximately ten (10) minutes. Your participation in the survey is completely voluntary. You may skip any question you think is inappropriate and stop completing the questionnaire at any moment you want with no further negative consequences for your treatment from the polyclinic.

The participation in the survey have no direct benefit for you. The information provided by you will be very helpful for science and healthcare. There is no penalty for refusing to participate. Whether or not you are in the survey will not affect your future visits at the polyclinics or elsewhere.

The information provided by you is anonymous and will be used only for the research purpose. Only the aggregated data will be reported.

If you have more questions about this research you can contact Dr. Varduhi Petrosyan at American University of Armenia, School of Public Health calling (060) 612-592. If you feel you have not been treated fairly or think you have been hurt by participating in this survey, please contact Dr. Kristina Akopyan, the Human Subject Protection Administrator of the American University of Armenia (060) 612-561.

Do you agree to participate? Thank you. If yes, shall we continue?

Appendix 8: Consent Form: Armenian Version

Հայաստանի Ամերիկյան Համալսարան Գիտահետազոտական Էթիկայի Թիվ 1 Հանձնաժողով Բանավոր Համաձայնության Ձև

Բարև Ձեզ,

Իմ անունը _____ է: Ես Ձեզ դիմում եմ Բալու Վիզնեշ Թավիդու Ռաջանի անունից: Ընտանեկան բժիշկների համար կազմակերպվել է բժիշկների՝ առաջնորդի հմտությունների զարգացման վերապատրաստում: Նա այդ ծրագրի համար հարցում է անցկացնում որպեսզի ուսումնասիրի վերապատրաստման արդյունքները: Ձեզ ընտրել ենք պատահականության սկզբունքով՝ որպես Հերացի կամ Մուրացան պոլիկլինիկաներում ընտանեկան բժիշկներին այցելած անձ: Պոլիկլինիկայի վարչակազմը թույլատրել է անցկացնել այս հարցումը:

Եթե համաձայն եք մասնակցել հարցմանը, պետք է պատասխանեք իմ կողմից կազմված հարցաթերթիկի որոշ հարցերի, որոնք վերաբերում են Ձեր և Ձեր ընտանեկան բժշկի հարաբերություններին: Հարցաթերթիկը լրացնելը կպահանջի մոտավորապես 10 րոպե: Ձեր մասնակցությունը այս հարցմանը կամավոր է: Կարող եք բաց թողնել ցանկացած հարց, որը տեղին չէք համարում և չշարունակել լրացնել հարցաթերթիկը ցանկացած պահի՝ առանց հետագա բացասական հետևանքների պոլիկլինիկայում Ձեր հանդեպ վերաբերմունքի առումով:

Հարցմանը մասնակցելը Ձեզ անմիջական օգուտ չի տալիս: Ձեր տրամադրած ինֆորմացիան օգտակար կլինի գիտության և առողջապահության համար: Մասնակցությունից հրաժարվելու դեպքում ոչ մի տույժ չկա: Հարցմանը Ձեր մասնակցելը կամ չմասնակցելը որևէ ազդեցություն չի ունենա պոլիկլինիկաներ Ձեր հետագա այցելությունների վրա:

Ձեր տրամադրած ինֆորմացիան գաղտնի կպահվի և կօգտագործվի միայն այս հետազոտության համար: Կզեկուցվեն միայն ընդհանրացված արդյունքները:

Հետազոտության հետ կապված հետագա հարցերի դեպքում կարող եք զանգահարել ՀԱՀ Հանրային առողջապահության ֆակուլտետ, Վարդուհի Պետրոսյանին (060) 612-592 հեռախոսահամարով: Եթե գտնում եք, որ հետազոտության ընթացքում Ձեզ լավ չեն վերաբերվել և/կամ հետազոտությունը Ձեզ վնաս է հասցրել, ապա կարող եք զանգահարել ՀԱՀ գիտահետազոտական էթիկայի հանձնաժողովի քարտուղար Քրիստինա Հակոբյանին (060) 612561 հեռախոսահամարով:

Համաձայն եք մասնակցել? Ծնորհակալություն: Եթե այո, կարող ենք շարունակել?