

The Perception of Nursing Profession among High School Students in Kazakhstan

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Master's thesis

December 2019

Social services, Health and Sports

Degree Programme in Advanced Nursing Practice

Author(s) Nurlybayeva Makbal	Type of publication Master's thesis	Date December 2019 Language of publication: English
	Number of pages 55	Permission for web publication: x
Title of publication The Perception of Nursing Profession among High School Students in Kazakhstan		
Degree programme Degree Programme in Advanced Nursing Practice		
Supervisor(s) Heikkila Johanna Ospanova Dinara		
Assigned by		
Abstract <p>Background: This study determines the need to find solutions for modern medicine, associated with a decrease in the prestige of the nursing profession, a shortage of nurses, and a decrease in the choice of nursing professions among high school students. In the era of the nursing reform in the Republic of Kazakhstan, it is important to introduce all levels of education and to monitor the quality of education in accordance with international standards.</p> <p>Task and objectives: The purpose of this research is to study the influence of the development of perceptions of the nursing profession among high school students in Kazakhstan.</p> <p>Research objectives: To evaluate the views of high school students about the nursing profession and to identify the factors that influence the choice of high school students to consider nursing as a career.</p> <p>Methods: Quantitative research was used in this study.</p> <p>Results: The surveys were conducted among 10th and 11th graders. High school students have a good image of nursing. They believe (46% agree) that the profession of a nurse is very valuable, despite the complexity of the profession (41.3% agree). According to respondents (41.3%), that the population considers nurses to be professionals.</p> <p>Conclusions: The results of this study are important in terms of providing information that can lead us to a new direction in addressing the issue of recruitment of nursing students and of practical importance for nursing education, practice, and research. Several factors influence the perception of high school students as the choice of the profession of a nurse: relatives, friends, teachers, the media and personal factors.</p>		
Keywords/tags (subjects) perception, nurse, image, high school students, quantitative research		
Miscellaneous (Confidential information)		

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1 Introduction

The development of nursing involves changing the role of nurses in society. This assumes that the nurse is no longer just the executor of medical appointments. (Comprehensive Nursing Development Plan in the Republic of Kazakhstan until 2019 2014.) According to a World Health Statistics report for 2011, there are 19.3 million nurses and midwives in English-speaking countries, which is almost 30 per 10,000 people. In contrast, Turkey and Kazakhstan have the lowest number of nurses per 1,000 people among EU countries (Önder, Önder, Kuvat, & Tas 2014). In Turkey, there are 114,772 nurses according to the annual health statistics for 2010, and the report of the Turkish Ministry of Affairs for the European Union (2011) shows that there are 1.3 nurses per 1,000 people (Önder et al. 2014). Today in Kazakhstan, there are over 154,000 nurses, of whom more than 39% are in rural health care (Habiyeva, Shokabayev, Seytkuzhanova, & Lebayeva 2016).

One of the criteria describing the development of nursing in the Republic of Kazakhstan is the Comprehensive Nursing Development Plan of the Republic of Kazakhstan until 2020. Modern theories involving a scientific approach consider the nurse as an equal partner of the doctor. The main role of the nurse is to make independent decisions on the care, planning and organizing the nursing process, and the maintenance of nursing documentation. (Comprehensive nursing development plan in the Republic of Kazakhstan until 2019.)

The main achievement of the nursing reform was the satisfaction of the state's interests in providing the country with qualified nursing personnel, the introduction of a qualitatively new state educational standard in nursing at the faculty of higher nursing education that meets the state policy of entering the world educational space. Therefore, nursing staff training takes place at various levels: undergraduate, graduate, and doctoral degrees in nursing. In the era of the nursing reform in the Republic of Kazakhstan, it is important to introduce all levels of education and to monitor the quality of education in accordance with international standards. (Comprehensive Nursing Development Plan in the Republic of Kazakhstan until 2019.)

Today, the image of the nursing profession is more important than ever. The relevance of this current study is the need to find solutions to modern medicine, associated with a decrease in the prestige of the nursing profession, shortage of nurses, and reduction in the choice of nursing professions among high school students. Effective nursing careers are an important resource that influences effective modern healthcare (Miligi & Selim 2014).

Today, the nursing profession is highly demanding, but only a few high school students choose this profession because of the low image of the nurse, and they do not take the profession seriously (Seago, Spetz, Alvarado, & Crumbach 2006). As part of this master's thesis, the perception of the nursing profession by high school students is investigated, as well as other factors that may affect the choice of the nursing profession.

The perception of the nursing profession and the choice of the profession of a nurse are of great importance today. Young people's perceptions of the profession of a nurse have been studied for a decade but mostly among students and focusing mainly on changing the perception of the profession during nursing education. There are some studies about the perception of schoolchildren, but little is known about young people who prefer the profession of nursing. (Glerean, Hupli, Talman, & Haavisto 2014.) Furthermore, there are no studies made in the Republic of Kazakhstan. In this regard, much needs to be done for the development of nursing in Kazakhstan in terms of the perception of the nursing profession and the choice of a profession. The purpose of this research is to study the influence of the development of perceptions of the nursing profession among high school students in Kazakhstan. This study is a quantitative study, and data has been collected from high school students using a questionnaire.

2 Image of Nursing Profession

2.1 Image and Social Perception of the Nursing Profession

The nursing profession has a long history. It has its own history of development and is constantly in a dynamic process of improvement and adaptation to modern life. (Kececi, Durmus, Oruc, & Kapisiz 2014.) According to Dahlborg-Lyckhage, and Pilhammar (2008), initially, the profession of a nurse was considered as a vocation, which is associated with female qualities and the act of love and care. Like any other profession, the nursing profession develops under the influence of society. (Kececi et al. 2014.)

According to Dahlborg-Lyckhage, and Pilhammar (2008), image is a part of a profession and a person's special opinion about the phenomenon and condition which can stimulate the choice of the nursing profession, or instead, to completely abandon it. Students acquire information about the image of nursing from relatives who work in the healthcare sector, their own experience as a patient, or television programs on healthcare (Dahlborg-Lyckhage 2003; Hemsley-Brown & Foskett 1999; Kalisch & Kalisch 1986; Kiger 1993; Vanhanen & Janhonen 2000, according to Dahlborg-Lyckhage & Pilhammar 2008). According to the Aiken's (2012) study, the image of nurses is distinguished by four concepts, which are widespread in the literature. Nurses are perceived as angels, servant-doctors, servants, sex kittens and are less recognized as stand-alone practices when doctors do not perceive the image of nurses as appropriate. (Aiken 2012.) The nursing profession has been constantly changing over the last century to become a respected, worthy, and desirable profession that continues to strive for comprehensive definition and self-understanding. There were some difficulties in changing the image from the traditionally perceived role of the handmaid. (Norman 2014.) According to Miligi and Selim (2014), the profession of a nurse is not considered a respected profession for women in Saudi Arabia, still taking the last place in the list of relevant professions for women. Reasons for such low perceptions include type of work, insufficient financial benefits and long hours of work, since women must fulfill the duties of a wife and a mother (Miligi & Selim 2014).

The nurses were seen as a woman in white clothes who performs all the doctor's appointments and monitors the general condition of the patients. The second image is angels in white coats who help people and care about them. (Kececi et al. 2014; Aiken 2012.)

Then the image of the nurse has been compared with Florence Nightingale, who founded "nursing", changed the status of a nurse and saw nursing as an independent profession in the 19th century. She became famous during the Crimean War for her innovative work. (Rhodes, Morris, Lazenby, & Browder 2011.)

In the 19th and 20th centuries, Nightingale and Henderson were outstanding forces in nursing (Summers & Summers 2009, according to ten Hoeve, Jansen, & Roodbol 2013). In world practice, nurses have a high level of professionalism, as evidenced by the presence of nursing protocols and guidelines. In addition, numerous forms of nursing education led to the manifestation of undergraduate, graduate, and doctoral programs. Despite this achievement, nurses still do not have respect for their skills, and they still suffer from stereotypes. (ten Hoeve, Jansen, & Roodbol 2013.)

On the other hand, society does not know the functions and roles of nurses in health care. For example, patients themselves are not always able to appreciate the importance of nursing care, often considering it only as a secondary service (Watson et al. 2003; Schmidt et al. 2003; Tarihci 2010, according to Kececi et al. 2014), and the nurse is not seen as smart as other medical staff and is completely dependent on doctors (Takase, Maude, & Manias 2006).

According to a study by Hassan, Hassan, and King (2012), Al Meer (1998) noted that in Qatar, nursing has been viewed as a dirty and dishonorable job, and therefore, only foreigners should do this work. Moreover, some take nursing as an obstacle for getting married (Al Meer 1998, according to Hassan et al. 2012). In some studies, the image of nurses it is still very stereotyped, since the role of nurses is vast and wide. Nursing education prepares students to work in an expanded role as health advocates (Smith & Garteig 2003). Despite the change in the nursing profession, the image remains predominantly female (Zysberg & Berry 2005).

According to a study by Dahlborg-Lyckhage and Pilhammar (2008), the mental images of nursing students and nurses are symbolized, such as a nurse as an idealistic

assistant, a nurse as a realistic developer, and a nurse as a young seeker. Nurses like to take care of people and are able to build relationships with patients. In addition, nurses are physician's assistants, and they obey them because a doctor knows more than a nurse (Dahlborg-Lyckhage & Pillhammar 2008).

Other factors to reduce the value of the profession are the opinion of society of nursing, which is created in the media and during the historical development of nursing. The media often claims that nurses provide poor help or they follow the instructions of the doctor as a servant, which contributes to their negative image (Kececi et al. 2014). The influence of the media on the public image of a nurse is crucial in the development of the profession, and the media presents healthcare as if there were two groups of medical workers (Scoble et al. 2003, according to Bakalis, Mastrogianni, Melista, & Kiekkas 2015). These are the medical doctors who have the main authority over other medical workers and order and then other medical personnel who are subordinates to the doctors (Fealy 2004, according to Bakalis et al. 2015). It has also been noted that the media often presents that nurses provide poor care, which contributes to their negative image (Brodie et al. 2004; Tzeng 2006, Ertem et al. 2009, according to Kececi et al. 2014) and affects the quality and number of people who choose the nursing profession (Miligi & Selim 2014).

According to Norman (2015), Francis (2012) reported that various media report about poor-quality of care, as well as the lack of proper compassion on the part of nursing staff, causing great concern in society. This is due to the fact that these messages are at odds with the traditional concept of nursing as a profession that provides complete care for the patient (Norman 2015). Naturally, public opinion affects the status of medical nurses and the development of this profession. The negative image of nurses, the work of nurses and their working conditions affect the choice of profession. (Miligi & Selim 2014.)

2.2 Choosing a Career in Nursing Profession and Factors Affecting the Choice of Profession

Despite changes and improvements in nursing, now it also faces obstacles and stereotypes, which affect the choice of profession among high school students. On

the other hand, there is a great demand due to the shortage of nurses all over the world, which greatly affects the quality of care as well as patient satisfaction. (Stanton 2004; Kim et al. 2009; Keshk et al. 2016, according to Al-Humaidan & Mersal 2017.) A study by Önder and others (2014) indicates that one of the most important reasons for choosing nursing is the quality of career growth, a wide range of employment opportunities, guaranteed work, and the value of the profession. Since the profession of a nurse is very popular, work can be found not only in your own country but also abroad since the lack of nurses is a global problem. (Dahlborg-Lyckhage & Pilhammar 2008.)

A comprehensive source of literature has shown that there are influencing factors for choosing a nursing profession, such as socio-demographic characteristics and socio-economic problems, as well as the level of independence of nurses. The positive image of nurses, the influence of family and relatives, as well as the personal knowledge of nurses and a good salary, are factors that influence the choice of profession. (Önder et al. 2014.)

In a systematic review of literature on career choices by gifted and talented students, Miller and Cummings (2009) identified one career motivator as a perception of the correspondence between career and personal self-esteem. According to Miller and Cummings (2009), career choices were based on the conviction that a person possesses the necessary qualities to be successful. Choosing a career for young people is a serious problem (Neilson et al. 2010, according to Önder et al. 2014) not all schoolchildren can determine a profession for their future because they are too young to define a profession. Therefore, the influence of parents plays a huge role in choosing a profession. Having an introduction to nursing career during the elementary school reduces the problem of a deficit of workers in the nursing profession (Lauver 2011, according to Önder et al. 2014.) To choose a career, it is needed to have an idea about the profession. The concept of perception was defined as a mental image or interpretation of something that a person creates through knowledge, experience, attitudes, and beliefs. (Glerean et al. 2014.) In order for young people to choose the profession of a nurse as a career, they could be offered free scholarships with requirement to compensate it by agreeing to work in a particular care facility (Nevidjon & Erickson 2001).

According to Glerean and others (2014), Boehm (1972) noted that social influences affect the perception of human actions. Perception can influence the choice of a profession among young people (Brodie et al. 2004, according to Glerean et al. 2014) and to retain experienced and stimulated young people in the profession of a nurse, the main thing is to know a realistic view of the profession of a nurse. When choosing a profession, it is also closely related to the concept of professional identity, which determines the possession and demonstration of knowledge about the profession, as well as understanding the historical status of this profession in modern society (Slay & Smith 2011, according to Glerean et al. 2014).

Parents can play an important role in choosing a profession (Önder et al. 2014). Incorrect perceptions and unrealistic expectations regarding nursing among high school students is a serious problem for the future of the nursing profession (Porter et al. 2009; O'Donnell 2011, according to Önder et al. 2014).

According to Önder and others (2014), Neilson and Jones (2012) showed that nursing is not a popular career among students. However, there are reports of various efforts to change the image of nursing among students, such as summer camps (Flores & Ashe 2012, according to Önder et al. 2014) which provide an opportunity to observe the work of nurses and to learn a lot of information about them. In this way, the interests of secondary school students in the nursing profession are enhanced, and such an effective strategy is a solution to the problem of nursing shortages (Önder et al. 2014).

According to a study by Dahlborg-Lyckhage and Pilhammar (2008), altruism was the main motive for choosing a career in nursing (Barriball & While 1996; Beck 2000; Fagerberg, Ekman, & Ericsson 1997; Thorpe & Loo 2003; Williams, Wertenberger, & Gushuliak 1997, according to Dahlborg-Lyckhage & Pilhammar 2008) instead of factors such as career growth, credibility, independence, creativity, economic benefits, or risk (Thorpe & Loo 2003, according to Dahlborg-Lyckhage & Pilhammar 2008). Also, similar studies have shown that often the choice of a nursing profession is due to the fact that care is a fairly respected activity and also the understanding of nurses as independent specialists (Webb, Price, & Coeling 1996, according to Dahlborg-Lyckhage & Pilhammar 2008). In addition, Glerean and colleagues (2014) noted that five factors affect youth's perceptions of the nursing profession: 1)

relatives, 2) friends, 3) other significant people, 4) the media, and 5) personal factors. The strongest influence on the choice of profession is provided by family members, especially mothers and grandmothers (Glerean et al. 2014).

According to Erickson, Holm, Chelminiak, and Ditomassi (2005), the main reason for choosing nursing is considered to be happiness at work for both adults and adolescents. The main reasons for choosing a profession were also highlighted. These are good salary, flexible working hours, job stability, and relationships with people. (Erickson et al. 2005.) In a study by Latham, Morris-Thompson, and Plata (2013), the Department of Health in England (2009) suggested that a number of factors could affect the image of nursing care that could influence career choices. Obstacles to this include low status and gender differences whereas motives to stay in the profession include safe work and a desire to help people (Latham et al. 2013).

According to a study by Bakalis and colleagues (2015), most students (71.4%) know about nursing as a science but most students prefer military schools (30.6%), theoretical sciences (20.4%), and technical studies (18.4%). Most of the students answered that the nurse had no career growth (71.4%), social recognition (65.3%), or job security (77.6%).

Miligi and Selim (2014) cite the study of Al-Kandari and Lew (2005) presenting that in Kuwait, 19% of all surveyed high school students considered nursing careers. A Tanzanian study found that a career in nursing was the least popular, with only 9% of students expressing interest (Kikwilu et al. 2000, according to Miligi & Selim 2014). While in Hong Kong, the results showed that students are well aware of nursing careers but do not want to pursue it (Rossiter et al. 1998, according to Miligi & Selim 2014).

2.3 Nursing Shortages: Solutions for the Short and Long Term

In 2010, the International Council of Nursing (ICN), on its official website, defined nursing to be an autonomous and collaborative care for people of all ages, families, groups and communities, and as well as sick or healthy in any environment. In addition, the nurse provides health promotion, disease prevention, and care for the sick, disabled, and dying. Nurses have key functions such as advocacy, promoting a

safe environment, research, participating in health policy making and managing patients and health systems, and education. (Önder et al. 2014.)

Nurses make up the largest professional group (Miligi & Selim 2014) and are the foundation of healthcare and attract the dominant part of medical staff but they are invisible due to the low public image of nursing, as in the eyes of society it represents the image of nurses in a stereotypical and negative way (Price et al. 2013, according to Glerean et al. 2014). The perception and favorable image of nursing is very important because nurses are a leading team in the healthcare sector (Al-Humaidan & Mersal 2017). As long as society presents an erroneous and negative image of nursing, the nursing profession is seen as undesirable (Hathorn, Machtmes, & Tillman 2009, according to Miligi & Selim 2014). As is known, there is a global shortage of nursing staff, and it is necessary to increase the number of students to solve the problem (Dahlborg-Lyckhage & Pilhammar 2008).

It is predicted that the demand for new nurses in Europe would reach 590,000 by 2020 (Sermeus & Bruyneel 2010, according to Glerean et al. 2014), and by 2030, 9 million nurses could be needed globally. The need for nurses is growing due to the increasing and demanding needs of older people, as well as the aging and retirement of nurses (Glerean et al. 2014). Labor shortages affect job dissatisfaction and increased turnover of experienced nurses, especially among young workers (Flinkman 2014, according to Glerean et al. 2014). A study by Glerean and others (2014) shows that the work of nurses is very hard, stressful, contains a risk of possible injuries, and has limited flexibility with working time. Additionally, the nurse cannot make decisions on her own and does not have autonomy. (Seago et al. 2006; Whitehead et al. 2007; Palumbo et al. 2008; Degazon et al. 2015; Norman 2015, according to Glerean et al. 2014). Shortage of nursing affects the quality of care and increased risk of adverse patient outcomes, increases stress and strain at work (Buerhaus, Donelan, Norman, & Dittus 2005).

As part of the nursing education program, an American corporation Johnson & Johnson launched the Future Nursing Care campaign in February 2002. The goal of this campaign was to educate people about nursing as a career, to recruit more people for the nursing profession and to keep nurses in clinical practice. To attract more candidates and disseminate information on the profession of nursing, the

company produced commercials, video, printed brochures, developed websites and organized holidays to raise funds for scholarships of students and teachers, as well as for grants from the nursing school to expand their opportunities. (Buerhaus et al. 2005.)

Previous solutions to economic problems concerning the workforce's supply/demand equation has been, for example, input bonuses or compensation, relocation coverage, or new bonus packages. However, those possess a limited and temporary effect because they simply redistribute nurses rather than increase their amount. Directed solutions should not act for a short time but rather they need to exhaust the problem. Societies perceive nurses from their experience and reading the media. Every year in the USA, the profession of a nurse is highly regarded as a respected profession and is trusted more than doctors and other medical personnel. (Nevidjon & Erickson 2001.) But at the same time, the media covers shortcomings, such as a shortage of nurses, stress and nursing mistakes, which have led to serious consequences and deaths of patients (Berens 2000, according to Nevidjon & Erickson 2001). Such diverse and conflicting images lead to an unstable image of nursing and might make it seem an undesirable career choice. According to Nevidjon & Erickson's (2001) article, they present that such negative news should be met, for example, with positive letters to editors. The value of nurses should be revised, not only locally, but nationally, too (Nevidjon & Erickson 2001). In an article by Zysberg & Berry (2005), the image of nurses is noted to be dominantly a female profession. Only a minority of men choose a career in nursing in the US (Zysberg & Berry 2005).

According to Al-Humaidan and Mersal (2017), Saudi Arabia has developed a Ministry of Health plan for 2030 to attract a large number of people to nursing by expanding and improving working conditions. In addition, health decision-makers need to improve the positive attitudes towards nursing and respect for the nursing profession, in order to make it more interesting for senior students (Keshk et al. 2016, according to Al-Humaidan & Mersal 2017). Nevidjon and Erickson (2001) identified particular factors causing nursing shortage, which are economic, working conditions, low image, labor shortage, and aging. Additionally, they suggested solutions for each of them and some of them are under implementation. In the short term, fiscal and marketing strategies can help. Changes in the working environment

will be necessary both in the short and long term. Ultimately, these decisions will make the profession the desired career choice. However, patient care is still one of the most reliable and respected of all health care professions. It is considered as a fast-growing profession and thus offers a good career opportunity for modern youth. (ibid.)

2.4 Modernization of Nursing Education System in Kazakhstan

Nursing is at different levels of development in different countries. Nowadays, many countries express a great desire to address these problems, due to the fact that governments are increasingly aware of the need to strengthen the area of medical services in order to improve access to effective care, which will undoubtedly lead to improved public health (Ivanchenko, Pavlova, Martykenova, Yussupova, & Kassieva 2014). Ivanchenko and others (2014) identified the most important problems facing nursing services:

1. The provision of medical services—in front of our country's health care system, there is an acute problem of the quality of medical services. Nursing staff is crucial in solving this problem since it is the nursing staff that spends the most time with patients. The level of patient health is one of the indicators of the quality of care.
2. Medical personnel—the lack of medical personnel, an imbalance of medical personnel, low motivation and salaries of medical personnel, all of which are factors that ultimately influence the effectiveness of medical care.
3. Staff training—no less relevant is the problem of training medical personnel. The education system of nurses does not meet international standards, which hinders the development of nursing in the Republic of Kazakhstan.
4. Management of the nursing staff—effective management of nursing staff is the basis for the quality of medical care. Currently, nurse-managers with higher medical education are successfully graduating in the Republic of Kazakhstan; however, the number of specialists working in the specialty leaves much to be desired.

Today, Kazakhstan is undergoing major reforms and modernization of the nursing education system in Kazakhstan. It is necessary in order for medical care to be more

accessible, with good quality of care and responsive health care for the population. According to the Strategic plan of the Ministry of Health of the Republic of Kazakhstan for 2017–2021, it was aimed at training nursing specialists at all levels on the basis of the European model with adaptation to the conditions of the Republic of Kazakhstan.

As part of the implementation of the State Program of Health Development of the Republic of Kazakhstan "Densaulyk" for 2016–2019, Kazakhstan is working to improve the curricula for the training of nursing specialists at all levels in accordance with international standards.

On the development of nursing care in the Republic of Kazakhstan in 2014, a Comprehensive Plan for the Development of Nursing through 2020 was developed. It is providing for the introduction of new competencies and the roles of nursing professionals in the health care system, institutional development of medical colleges and universities in accordance with the reform of nursing, creating a scientific foundation for strengthening nursing education and nursing system development, marketing and raising awareness of nursing reform to create a positive image of the new nurse profession, and development and implementation of mechanisms for coordinating the reform of nursing in the republic (Comprehensive plan for the development of nursing in the Republic of Kazakhstan until 2019–2014).

For Kazakhstan, the development of a nursing system means its development at all levels of education, monitoring the quality of education at the level of international standards, introducing into practice the institute of nursing specialists with different official positions according to the level of education. Along with the reform of nursing education, it is planned to introduce new mechanisms for the functioning of medical organizations with equal medical and nursing organizational structures, introduce a register of nursing specialists and nursing documentation, introduce innovative nursing technologies, develop modern nursing evidence-based practices, basic and applied nursing science, redistribute and clear delineation of functional responsibilities between doctors and nurses at different levels. (Comprehensive nursing development plan in the Republic of Kazakhstan until 2019.)

The goal of this program is to increase the efficiency of the functioning of the health system of the Republic of Kazakhstan through the reform of nursing and the creation of a specialist in nursing in the new formation in accordance with the modern challenges of society and international requirements (Comprehensive nursing development plan in the Republic of Kazakhstan until 2019). The implementation of the project allowed for a review of the nursing education system. At the same time, the Finnish model for the training of nursing specialists was taken as the basis for the training of nurses performing advanced tasks of the nursing process. Currently, Kazakhstan is implementing the project “Modernization of medical education and science” with the aim of improving nursing in the Republic of Kazakhstan together with experts from the universities of applied sciences, JAMK and LAMK (Finland). (The first graduation of 308 applied bachelors in nursing took place in Kazakhstan 2018.)

The basis for the training of nurses performing advanced tasks of the nursing process was taken by the Finnish model for the training of specialists. Kazakhstan has a multi-level system for training nursing specialists, ranging from the junior nurse to the master of nursing. Ten medical colleges received the status of higher colleges. This year, another seven medical colleges have received a positive assessment for the reorganization into higher colleges. (The first graduation of 308 applied bachelors in nursing took place in Kazakhstan 2018.)

In February 2018, the first graduation of 308 applied bachelors of nursing was held. This is a new generation of nurses. They can provide independent nursing care, advise and train patients and their relatives in managing diseases, and undertake health promotion and disease prevention activities. In addition, the Ministry of Health of the Republic of Kazakhstan is implementing a pilot project to develop and implement a new model of nursing service in practical healthcare organizations. This project started in August 2017, and seven high medical colleges and 29 pilot medical organizations of the Republic became its participants. (The first graduation of 308 applied bachelors in nursing took place in Kazakhstan 2018.)

Thus, the implementation of the Comprehensive Nursing Development Plan in the Republic of Kazakhstan until 2020 will achieve a significant increase in the efficiency and effectiveness of the nursing service and the health care system of the Republic of

Kazakhstan as a whole, implementing the goals and objectives set out in the Strategic Plan of the Ministry of Health for 2014–2018 years.

3 Purpose, Objectives and Research Questions

The purpose of this study is to assess high school students' perception of the profession of nurses as a future career.

The research objectives:

1. Evaluate the perceptions of high school students about the profession of nurses.
2. Identify the factors that influence the choice of high school students to consider nursing as a career.

Research questions

The study is conducted to answer the following questions:

1. What are the perceptions of high school students about the profession of nurses?
2. What are the factors that influence the choice of high school students to consider nursing as a career?

4 Methodology

4.1 Quantitative Research Method

The first step of quantitative research focuses on the explanation of phenomena. The specificity of quantitative research is that numerical data is collected and analyzed using a mathematical database. To be able to use mathematical methods, data must be in numerical form. The task of this study is related to the collection of numerical data for explaining a specific issue, and therefore, a quantitative study was chosen. (Muijs 2004, 1.)

There are four main types of research questions to which quantitative research is particularly suitable for finding an answer:

1. The first is when a quantitative response is necessary, for example: "How many high school students choose training?" or "How many high school students think positively about nurses' image?"—Non-numerical methods would not give us the (numerical) answer we want. (Muijs 2004, 7.)
2. Numerical change can also be accurately studied only by quantitative methods. Is the number of high school students choosing a career in nursing increasing or decreasing? We need to conduct a quantitative study to find out.
3. In addition to the desire to learn about the state of something, we often want to explain the phenomena. What factors affect the recruitment of high school students? This kind of question can also be successfully studied using quantitative methods, and many statistical methods have been developed that allow us to predict estimates for a single factor or variable (for example, a set of high school students) from assessments for one or more other factors or variables (e.g. level of nursing shortage, remuneration, working conditions).
4. The final activity for which quantitative research is particularly suitable is hypothesis testing. We may want to explain something, for example, whether there is a connection between a student's achievements and their self-esteem and social origin. We could look at theory and hypothesize that a low social class leads to low self-esteem which in turn is associated with low achievements. Using quantitative research, we can try and test such a model. (Muijs 2004, 7.)

4.2 Participants and Data Collection

There are a number of different ways to conduct a survey, each of which has its own advantages and disadvantages. Probably the most common method in educational research is to use a paper-pencil questionnaire. The main advantage of this method is its acquaintance with users, that it allows users to fill in a questionnaire at a convenient time for them, and also that it allows them to think about their answers for a while. (Muijs 2004, 1.)

Analyzing all sources of literature, several questionnaires were found which were used to interview nurses about their image. Sources of literature were searched from databases that included Google Scholar, PubMed, CINAHL, and Janet. A related

search for information was carried out in these databases using the following keywords: the prospects of the nursing profession, the perception of the nursing profession, high school students, quantitative research. The articles included in the study were those that were able to justify themselves from a scientific point of view, in English, publication date 2003 (inclusive). A suitable questionnaire for our population was the Lovan questionnaire (2009), which is called the professional nursing perception tool (PPNT) for the nursing profession. The author of the questionnaire is Sherry R. Lovan, and permission to use the questionnaire for this research was requested from her. Permits were accepted, and the questionnaire was then adapted for Kazakhstan and the population. Some questions have been changed. The questionnaire consists of two parts: the demographic part while the second part includes questions "practice", "values", and "image". Initially, the questionnaire consisted of 43 questions but many changes needed to be made to the demographic part. Since the cultural environment of countries is different (growth of schoolchildren, education, salaries of medical workers, etc.), the questions were added to find out about the reason, the influence of the choice of the nursing profession, information and the level of knowledge about the profession. The questionnaire was translated from English into Russian and Kazakh.

Following the suggestion by Gjersing, Caplehorn, and Clausen (2010), an expert group of five people was formed to adapt the intercultural process. The commission included researchers who also used this tool for their research, as well as an expert from the JAMK University of Applied Sciences in the field of nursing care and a professional translator who speaks these languages. The tool was translated by researchers who speak fluently in the target language and understands the original language well. Each researcher and professional translator translated from English into Russian, from Russian into Kazakh and vice versa. Then all the translations were compared and a single questionnaire was selected in three languages. In the process of translation, there was the word "Team Healthcare" which is not used in our culture so it was changed to "Medical Team". Also question number 3 was changed. Originally the question read: Nurses with bachelor's degrees (BSN) are better prepared to enter the nursing profession than nurses with junior staff degrees or diplomas. By unanimous agreement of the team of experts, the question was

changed to “Nurses with a bachelor's degree are better prepared for nursing than nurses who graduated from college (TaVE)”.

Permission to participate in the survey was sent to the school director of Almaty and Taraz. Only four schools agreed of the city of Taraz:

1. Secondary school number 47;
2. Many specialized school-gymnasium number 41;
3. Secondary school number 48;
4. Secondary school number 53.

High school students (aged 15 to 18 years) were selected to participate in the survey. Before the questionnaire was carried out, informed consent of the participants was received. They were explained the purpose of the study, voluntary participation in the study, as well as about the anonymous nature of the survey.

The data was collected from December 11 to December 30, 2018, during a lesson from 9.00 to 12.00. Three hundred and fifty (350) high school students were selected and of these, 327 participants answered the questionnaire. Twenty-seven (27) responses were insufficient, and they were excluded from the study. The remaining 300 questionnaires were analyzed using the SPSS program of the 25th version in online mode on the JAMK University portal. First, a database was created in the program, then the answers were coded, all the questionnaires were driven into the database of the SPSS after which the data were analyzed using descriptive statistics to determine the purity, the percentage ratio, and the reliability of the questionnaire using Alpha-Cronbach.

4.3 Approval of Ethical Committee

A formal agreement was made for each participant and school leaders to study. In addition, the purpose and purpose of the study were clarified with the principles of schools in order to obtain support and cooperation. Ethical questions were raised by orally agreeing to the participation of each student. After explaining the purpose and nature of the study and the procedure, data were collected for the study. The

researchers emphasized that participation is voluntary, and participants have the right to leave at any time.

4.4 Validity and Reliability

Reliability and validity are critical properties of measuring research results and of great importance in all studies. The degree to which repeated readings are similar, providing the same result twice (or more), and can relate to people, is called reliability. (Ciliska, Cullum & DiCenso 2013, 69.)

The reliability of quantitative research refers to the consistency of the research tool. It is also associated with the degree of repeatability of the study and gives the same results when the methodology is replicated in similar circumstances and conditions. (Holloway & Wheeler 2010, 299.) It is associated with the consistency, stability and repeatability of accounts, as well as the researcher's ability to collect and record information accurately (Creswell 2013, according to Brink, Van der Walt & Van Rensburg 2018, 110).

The validity of quantitative research is seen as the degree to which the instrument measures what it should measure. Internal validity is the degree to which the results of a study are accurate and reflect the purpose of the study. (Holloway & Wheeler 2010, 299-300.) To establish the validity of the changed tools, the following steps were taken. Before sending the questionnaire to the participants, the questionnaire was reviewed by a group of experts and translated into Russian, Kazakh, and English and adapted to our culture. The reliability of the modified instruments has been evaluated with Cronbach's alpha.

The questionnaire was used in a survey for nursing students conducted in 2006 by researchers Sand-Jecklin and Schaffer. Alpha values of reliability in the questionnaire were 0.84 for the practice scale and 0,79 for the value scale. This questionnaire was reused by Sand-Jecklin & Schaffer (2006) by the same students who underwent 6 months of training and participated in direct patient care. After analyzing the pilot study, additional changes were made to the questionnaire. These changes included a separate subscale (Public Image), which contained questions that measured students' perceptions of the public's assessment of the nursing profession. After

changing the questionnaire, PPNT consisted of 37 questions in subscales, including 13 subjects in Practice, 11 subjects in values, and 13 objects in Public Image.

The authors verified the internal consistency of PPNT with a standard alpha coefficient of 0,96. The alpha coefficient for the "Practice" subscale was 0,94. Reliability for the subscale of values was 0,91 and 0,95 and for the public image of the subscale 0,91 and 0,92. This questionnaire was also used by Lovan (2009), and the final calculations of Cronbach's alpha amounted to Practice 0.74 for the subscale, Values 0,72, and Public Image 0,92. The questionnaire was used three times and proved its reliability and effectiveness for which it was developed.

According to Table 1, the total Cronbach's alpha on the questionnaire is 0,892, which consists of 37 points. This indicator shows that the reliability of this profile is good. It consists of three points, such as the Public image (of 13 items), consisting of 0,742, Value (of 11 items), which amounted to 0,752, and in Practice (of 13 points), which is calculated as 0,780 (see Table 1).

Table 1. General Cronbach's alpha

Cronbach's alpha	N of Items
General Cronbach's alpha-0,892	total (of items 37)
Public image – 0,742	13 items
Value – 0,752	11 items
Practice – 0,780	13 items

5 Results

This chapter describes the results of a study that was collected through questionnaires among high school students. Results are described along two lines of the questionnaire. The first part of the questionnaire consists of demographic parts, which reflect two important areas of research. This is the demographic part and the influence and knowledge of high school students about the nursing profession. The second part of the questionnaire reflects on the perception of the nursing profession

among high school students, which studies the principles of practice, values, and public image among high school students.

5.1 Socio-Demographic Characteristics

The characteristics of the respondents are described in Table 2. Respondents were between the ages of 15 and 18 years. Most respondents were male. The surveys were conducted among 10th and 11th graders, the majority of respondents were 11th grade high school students (70,3%). The language of instruction was chosen by the Russian and Kazakh schools, and the majority (81,7%) of the survey was conducted in Kazakh-speaking schools. Of the participants, 161 were men (53,7%) and 139 (46,3%) women.

Table 2. Describing of respondents

Item	Frequency	Percent
Age 15 years	10	3,3
16 years	88	32,0
17 years	194	64,7
18 years	8	2,7
Gender Female	139	46,3
Male	161	53,7
Grade 11th grade	211	70,3
10th grade	89	29,7
School Language Kazakh	245	81,7
Russian	55	18,3

The following Figure 1 describes the percentage of respondents that participated from four schools. Shown in the picture, 33% of participants participated from school number 47,9% participated from number 53 of the secondary school, 32% of respondents answered from number 48, and 26% from number 41 secondary school.

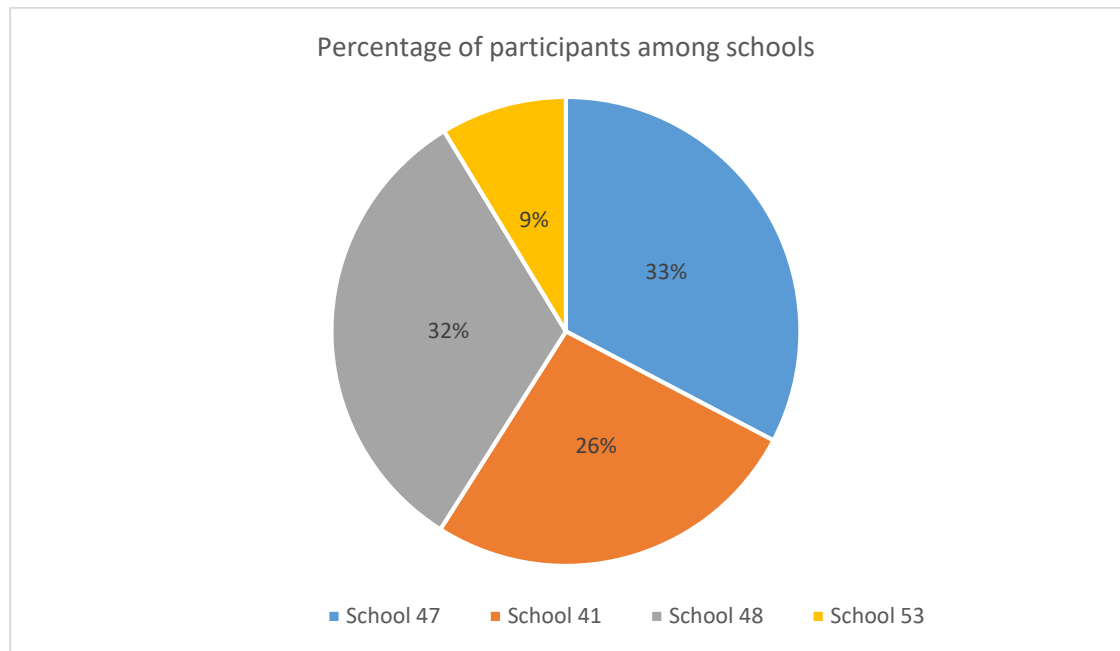


Figure 1. Percentage of participants according to schools (n = 300)

The questionnaire included questions relating to the knowledge of the nursing profession, which are described in Table 3. Of the respondents, 39% learned about the profession from watching TV. In the second and third place were answers “knowing someone who is a nurse” (24,7%) and “reading books, magazines or newspapers” (20,0%), respectively. Only 36 respondents (12,0%) knew about the nursing profession from their school.

Most respondents knew parents, relatives, or friends who work in the health sector and who influence their knowledge of nurses and positive perception of the nursing profession. However, these figures do not give good results when choosing a profession. The following result shows that respondents are not very well aware of the nursing profession. Only 26,3% of respondents had good knowledge.

Table 3. Percentage of respondents according to sources of information on nursing profession

Variable	Item	Frequency	Percent
Views and opinions on the nursing profession	watching TV	117	39,0
	Reading books, magazines or newspapers	60	20,0
	studying nursing at school	36	12,0
	knowing someone who is a nurse	74	24,7
	other	13	4,3
Know someone that works as a nurse	yes, one of the parents	77	25,7
	yes, both parents	34	11,3
	yes, other relative	101	33,7
	yes, friend	40	13,3
	No I don't KNOW	48	16,0
Know someone that works as a doctor or other professional	yes, one of the parents	61	20,3
	yes, both parents	35	11,7
	yes, other relative	121	40,3
	yes, friend	29	9,7
	No I don't KNOW	54	18,0
	TOTAL	300	100

Figure 2 shows who influences the respondents' choice of nursing profession as a future career. More than a third of respondents (36%) said that parental influence plays a large role. Thirty percent of the respondents answered making the choice themselves and 22% perceived relatives to have an influence on the choice.

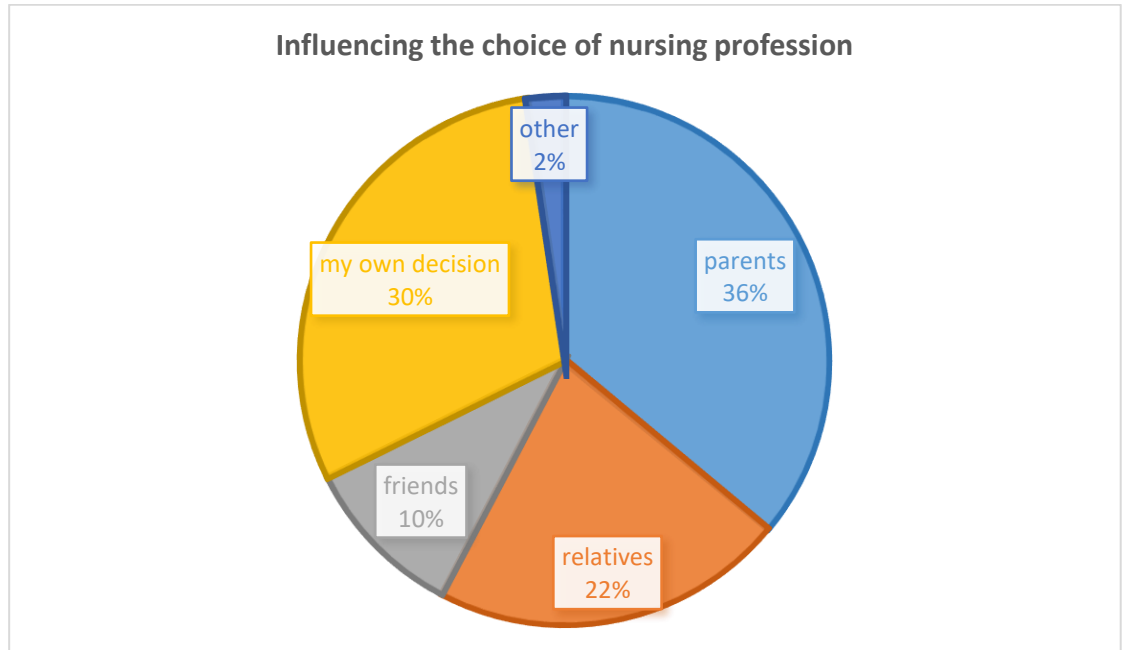


Figure 2. Influencing the choice of nursing profession (n = 300)

Figure 3 shows whether high school students would choose the nursing profession. About fourth of the high school students confidently answered that they would choose the profession of a nurse as a career. 24% would probably choose nursing and 21% of respondents do not want the profession of a nurse as a future career.

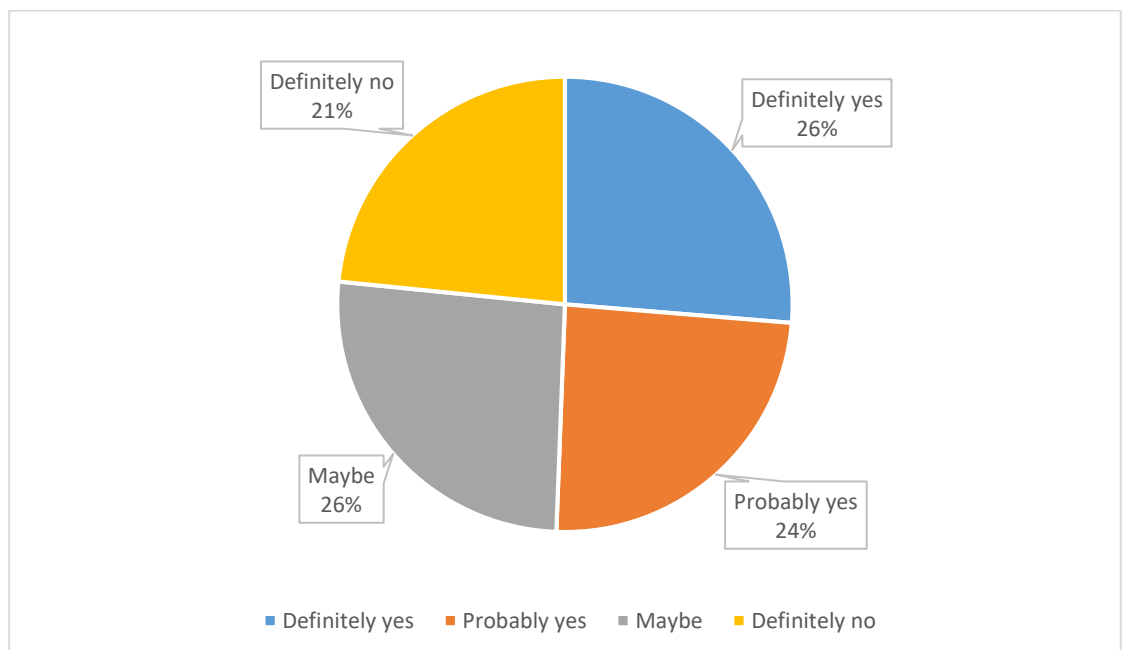


Figure 3. Choosing the profession of a nurse as a career among high school students

In order to identify the reasons for admission or the choice of a profession as a future career among the respondents, they were asked to answer the following question: Reasons for which you would go into nursing? From the answers, the results presented in Figure 4 were obtained. It should be noted that 28% of respondents do not want to choose nursing as a future career. At the same time, it should be noted that free state grants attract 22,7% of respondents. Also, 12,3% of respondents like to help people, 11% like to wear medical uniforms (white coat), and financial reasons influenced 9,7% of participants who choose to study nursing in college. Smaller percentages were obtained with the desire to take care of people and take care for the sick, the desire to work in the hospital, and advice from parents (see Figure 4).

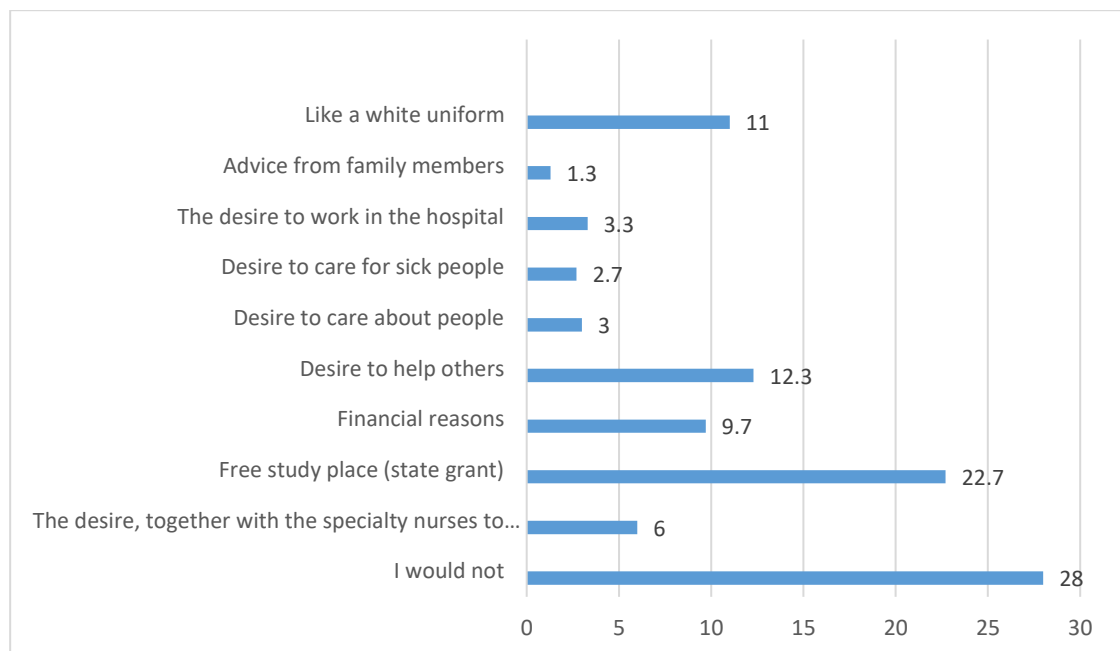


Figure 4. Reason for choosing a nursing profession

5.2 Prospects for Nursing among High School Students

In this part of the results, the questions were combined in a table on the basis of practice, value, and public image among high school students. The first and second answer options were respectively distributed as disagree, the third answer as undecided, the fourth and fifth answers correspond with agreeing.

High schools students' perceptions of public image of nursing profession

The perception of the public image of nursing experienced by high school students was studied through several statements. The first and second answer options were respectively distributed as disagree, the third answer as undecided, the fourth and fifth answers correspond with the agree answer.

Figure 5 shows that 37,7% of high school students do not believe that the public is positive about nursing, and 34% of high school students think that the public is positive about nursing. According to high school students (46% agree), the public believes that the profession of a nurse is very valuable, despite the complexity of the profession (41,3% agree). According to respondents, the majority believes (41,3% agree) that the population considers nurses to be professionals.

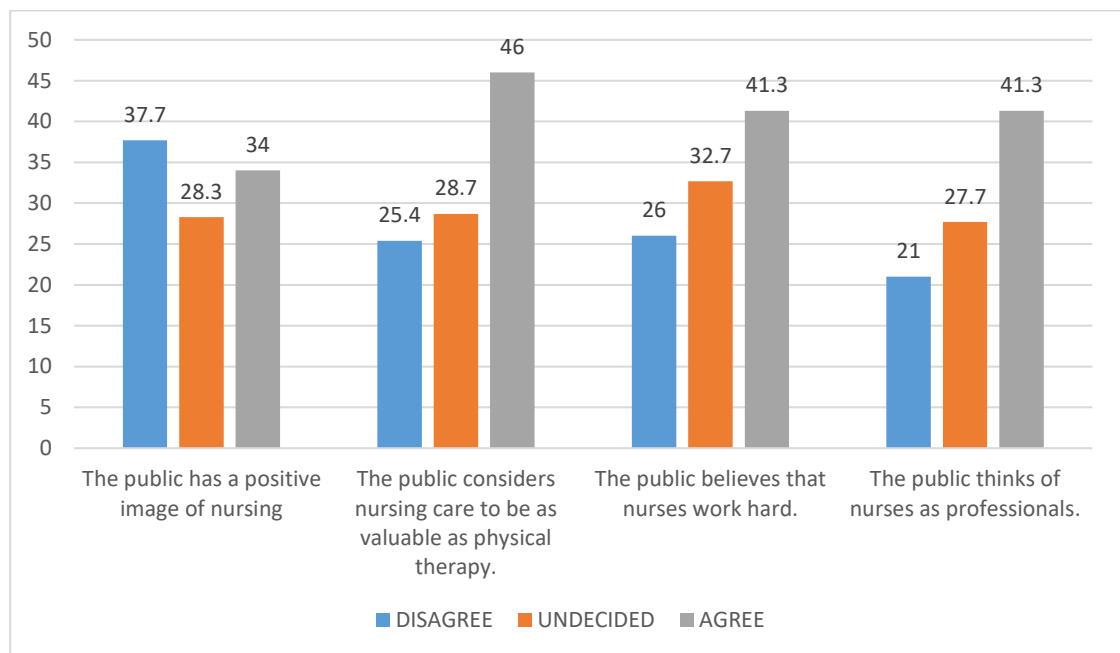


Figure 5. Perceptions of the public image of nurses among high school students

Shown in Figure 6, the answers were evenly distributed for the claim that the public respects the profession of nursing as much as the profession of a lawyer, for third of the respondents agreed and another third disagreed with the claim. A bit higher percentage of the respondents (37,3%) agreed that the public understands the complexity of the nursing profession. More than third of high school students do not

agree (38%) that the public perceives the profession of a nurse as a rapidly changing profession, while 24,3% of respondents found it difficult to answer. Thirty-nine (39) percent of the respondents disagreed with the statement that the public believes nurses to be organized, and only 32,3% agreed to the claim (See Figure 6).

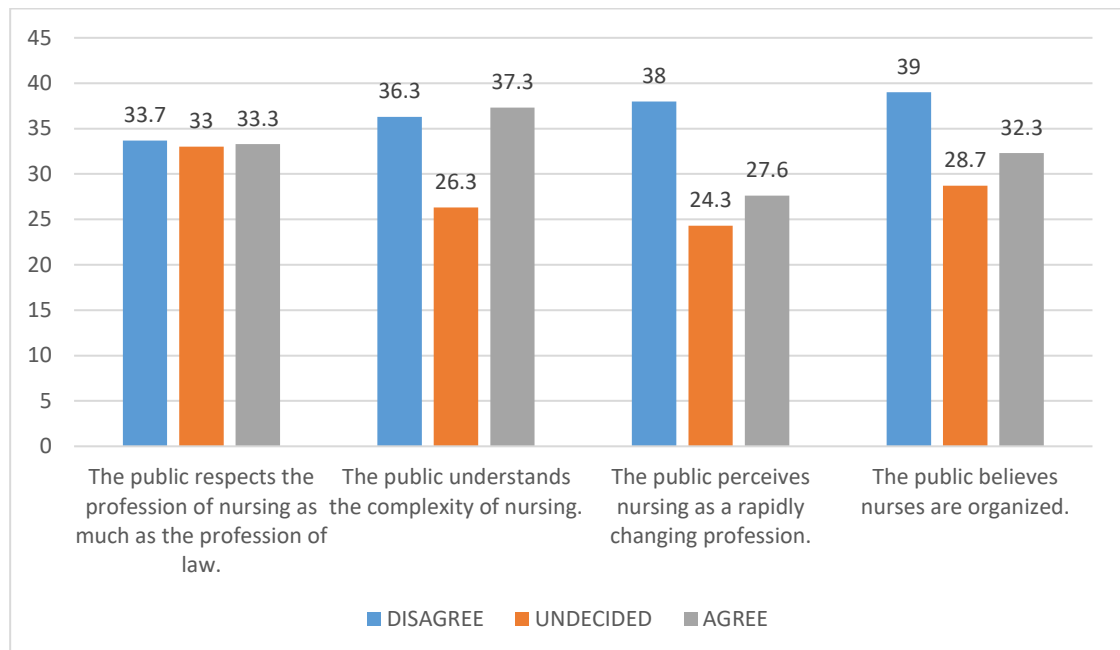


Figure 6. Perceptions of the public image of nursing profession among high school students

According to Figure 7, 39,6% of high school students agreed that the nurse is seen as an important member of the healthcare team by the public while 30,7% of high school students found it hard to answer this question, and 29,6% of respondents did not agree with this statement. With a small difference in percentages, 37,6% agreed and 34,7% disagreed that the public perceives the profession of nursing as a diverse profession that has many different career opportunities. Many students perceived that the public sees the profession of nursing as a complex and rewarding career in the healthcare sector (39,6% agreed). In addition, the students thought nursing is a profession valued by the public for the intelligence and creativity of nurses (39,6% agreed) (See Figure 7).

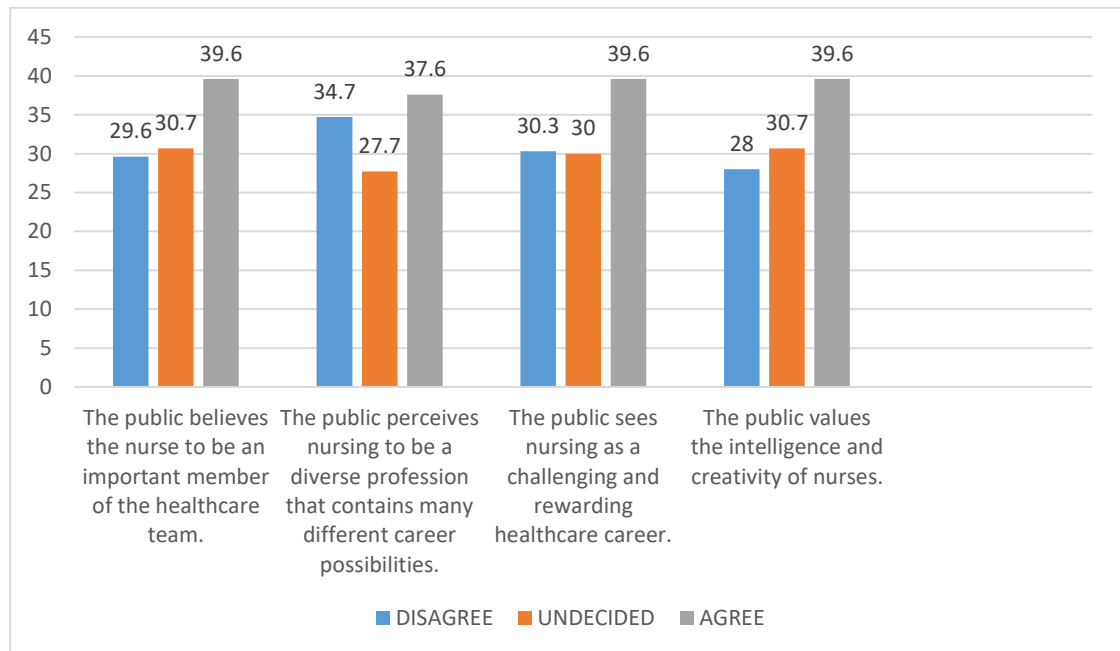


Figure 7. Public Opinion on the Role of Nurses in the Health Care System

Shown in Figure 8, almost half of high school students did not believe (47,7% disagreed) that nursing care is as important as physiotherapy. Despite this, close to half of participants (44,6%) agreed that the public sees nursing work as very complex, and 40% believed that nurses work hard. Two fifths of the respondents respect the profession of nurse as much as the profession of a lawyer (39,3% agreed).

Many senior students (42,7% agreed) considered the profession of a nurse as a profession whereas 36,3% of respondents did not think of nursing as a profession. Only 21% of respondents found it difficult to answer (See Figure 8).

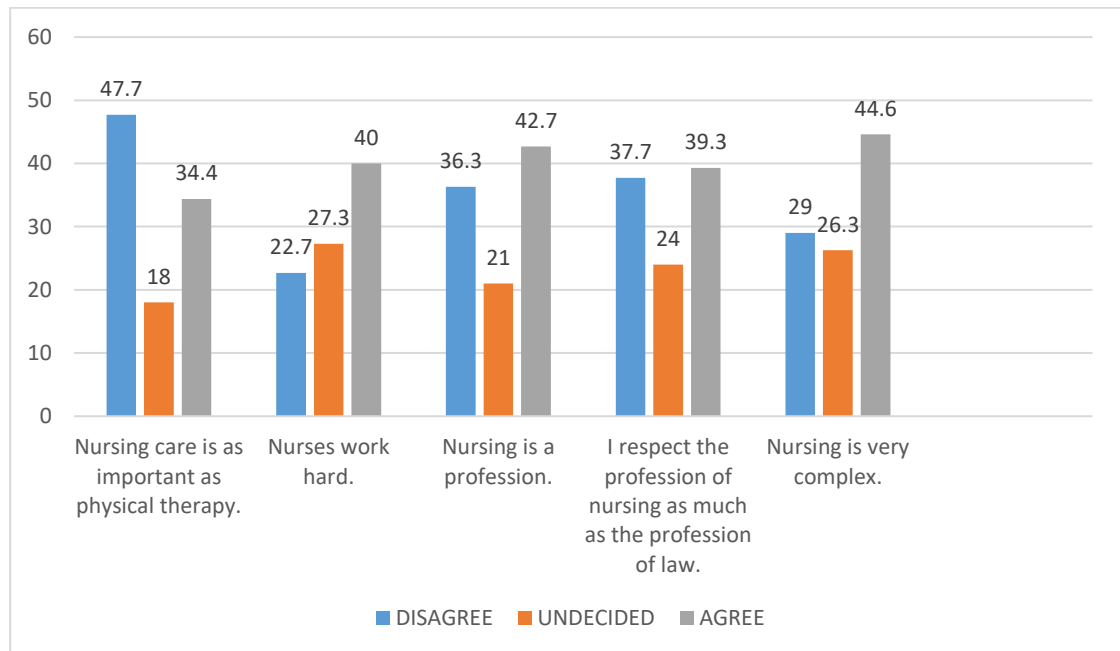


Figure 8. Perceptions of high school students about the profession of a nurse

Figure 9 shows how 44% of high school students thought that nurses are very organized and fewer respondents (28%) did not agree. Of the students, 54,3% agreed that a nurse is an important member of the healthcare team while 22,3% found it difficult to answer this question, and 23.3% did not agree with the statement. 38,7% of the high school students think that the profession of a nurse is diverse and has many different career opportunities. Many students (43%) agreed that the profession of a nurse is challenging and rewarding. Furthermore, 37,7% of students agreed that nurses are intelligent and creative.

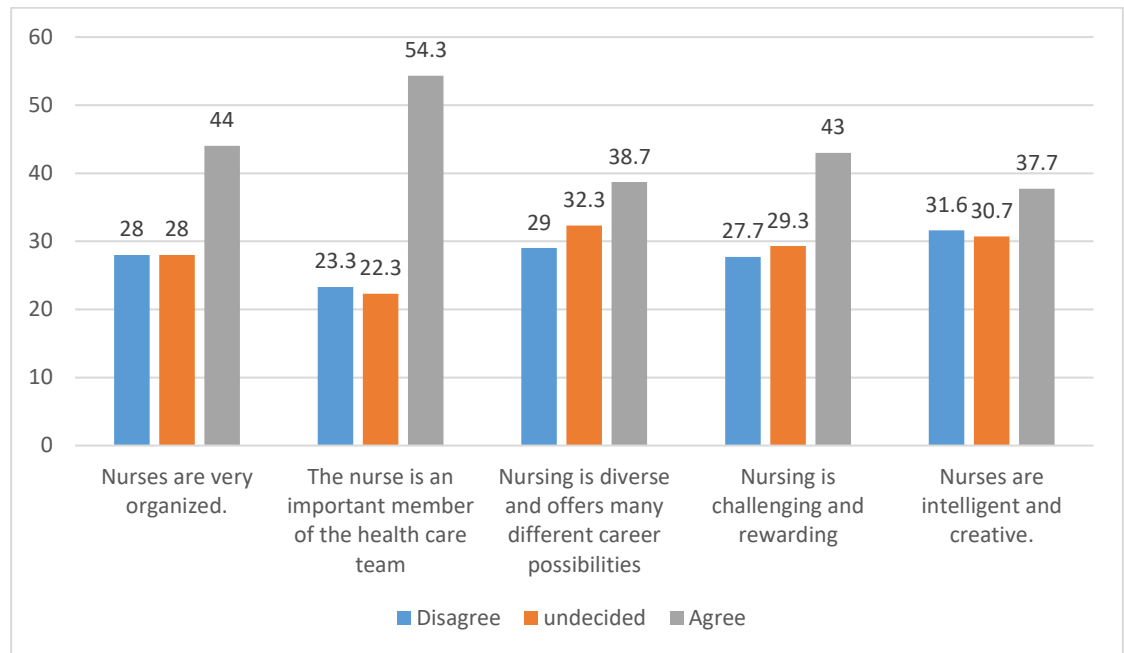


Figure 9. High school students' opinion on the Role of Nurses in the Health Care System

Figure 10 shows that there is little difference between the respondents' answers (36.4% agreed and 37,3% disagreed) to the statement that nurses with bachelor's degrees are better prepared to enter the profession of a nurse than nurses with degrees or diplomas (TaVE). With the statement that nurses have their own autonomy in practice, 38,6% of the high school students disagreed. Nurses are directly responsible for the positive results in the health of their patients according to 41,3% of students, and 43% agreed that teaching health promotion and disease prevention in the community is a nursing responsibility.

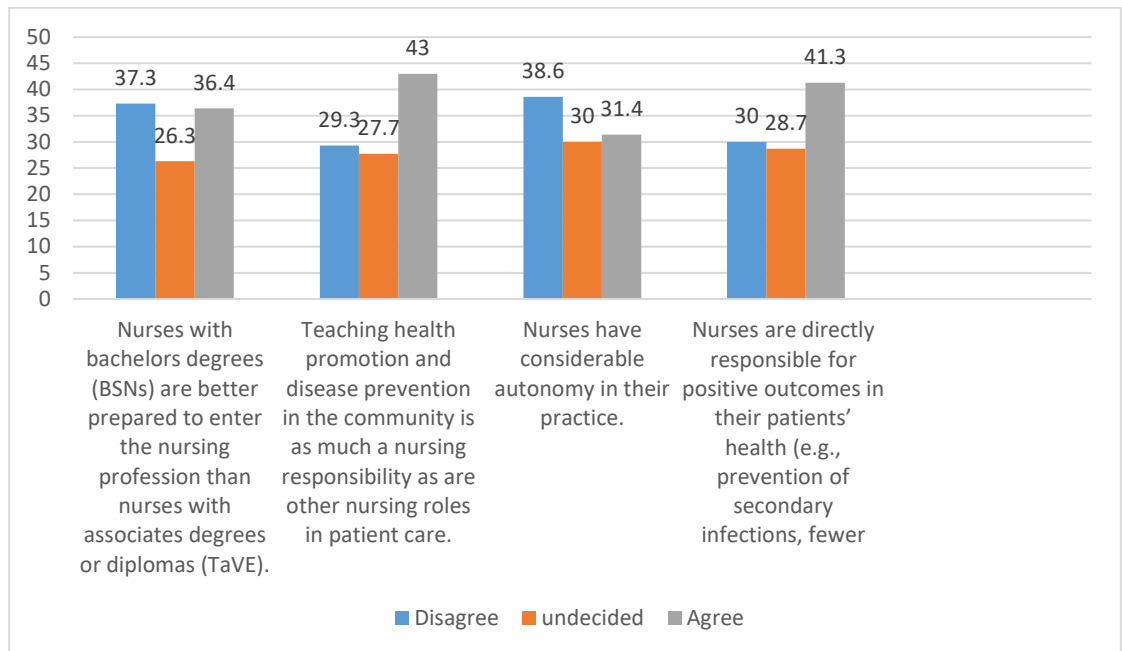


Figure 10. Perception of Nursing Practice

As shown in Figure 11, many high school students (45,7%) agreed that a nurse should regularly assess the condition of their patient and master skills that match those of other healthcare providers (e.g., respiratory therapy, physiotherapy, social work, and T. D.) (44,3%), to take care of the same patients every day (34%), and educate patients (48,6%). Of the respondents, 31,4% do not agree that nurses should question medical orders that, in their opinion, may be incorrect.

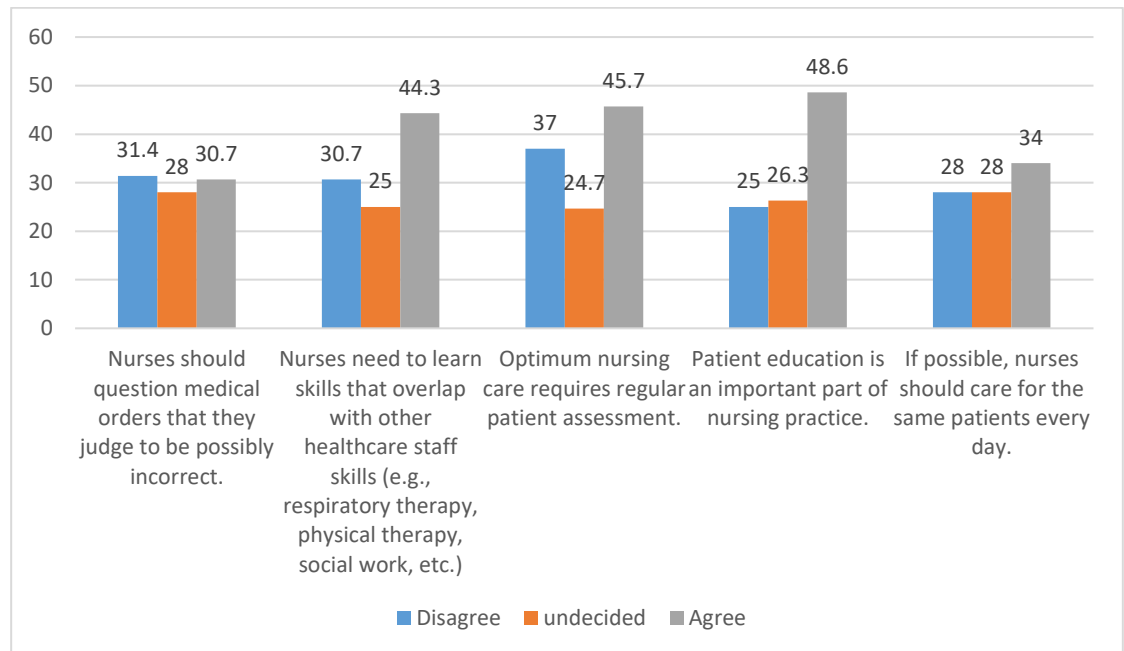


Figure 11. High school students' perception of the importance of nursing practice

6 Discussion

This study was aimed at improving the profession of nursing, as well as studying the perception of the public image of nursing, and the practice and values of nursing among high school students in Kazakhstan. Tasks were set in this cross-sectional descriptive study to evaluate the choice of high school students as a career in the profession of a nurse. The nurse is the most important worker in health care. Nursing is a career, and it is believed that it is a service to humanity that helps people. The lack of nurses is recognized worldwide and is due to many factors, one of them being the stereotypical view of nurses and nursing.

High school students are at the age when they have to decide about their future careers. Results of a study by Sharma, Kumar, and Meena (2017) showed that the poor social image of nursing in the eyes of high school students can be a serious obstacle to attracting students to the nursing profession. The perception of the public image of the nurse and nursing profession ($16,75 \pm 3,28$) showed alarming results in the eyes of schoolchildren and is not a good sign for the future growth of the profession (Sharma et al. 2017). In contrast, according to the results of this study,

it should be noted that high school students were positive about the profession of a nurse and their work. Furthermore, a study by Folami, Ademuyiwa, and Ajibola (2018) found that 93% of high school students thought positively about the profession of a nurse.

The choice of profession is influenced by friends, relatives, family members, nurses, and nurses who have been successful in the profession. Of all high school students, at least 92% had a friend or relative who was a nurse; this means that knowledge about the profession could be acquired from them. (Achilles 2010.) According to Sharma and others (2017), in addition to parents and relatives who work in the healthcare sector, 28,6% of students gained knowledge about nurses after interacting with a nurse in a hospital, and 21,4% of students studied about nursing in school curriculum (Sharma et al. 2017). Similar research results were available in the study by Jeon, Jeon and Kim (2015). But in this study, advice on choosing a profession was also influenced by teachers (14,4%). In this study, 36% of respondents answered that parents direct them to choose their future profession. Also, many respondents themselves felt that they are responsible for their decision. Only 22% are influenced by relatives, which is consistent with other studies. In addition, the image of nursing is affected by the media, such as the Internet and television.

Economic factors also played a role in directing students to choose a career. Compared to other health care professions, such as medicine and dentistry, students who choose nursing care do not receive grants. For this reason, nursing students must pay a fee for their education (Achilles 2010). The Sharma and others (2017) study is closer to the Achilles (2010) study since the data obtained indicate that nursing needs more money (51,8%) and requires diligent study, skills, and practice (47,6%). Of the students, 36,9% believe that nurses work long hours and night shifts (45,2%). But according to this study, high school students go into nursing because there are more grants available for this specialty.

Regarding nursing knowledge, the majority of respondents (91,4%) knew that nursing was a profession, according to the study by Folami and others (2018). It was found that 88% of students fully agree that a high level of knowledge, skills, and common sense is the key to becoming a nurse, and that nurses are the foundation of a medical care system (79,17%) and an important member (79%) of medical teams in

the hospital (Sharma et al. 2017), and that they are also engaged in the field of strengthening and prevention of disease in patients as well as their training. This is consistent with the result of this study.

7 Conclusions

The results of this study are important in terms of providing information that can lead us to a new direction in addressing the issue of recruitment of nursing students. This study showed that students are at least aware of most issues related to the profession, but they do not want to choose a career path in nursing due to the image that they have from the public. The factors that were considered in this study should be taken into consideration, if we are to increase the ratio of nurse in Kazakhstan. There was a general positive perception of nursing as a career, since most respondents believed that nurses played an important role in the prevention of diseases in society. In addition, nurses were regarded as respected and valued by society.

The results of this study are of practical importance for nursing education, practice, and research. Modern medical care requires an interdisciplinary approach to be effective. Therefore, it is important to emphasize the importance of teamwork in the decision-making process for caring for a patient at the level of a nurse practitioner, as well as at the secondary school level, where the next generation of nurses are involved. It should be noted that it will take a lot of effort to maintain a positive image of nursing among society. Nursing must correct and overcome all the problems that a person in the profession may encounter. In addition, medical schools, the media and public opinion should focus on the role of nurses and create a positive image of the nursing profession.

In addition, there should be a program in the school curriculum to familiarize the students with the nursing profession and practice. Therefore, it is necessary to enable the provision of information sequentially. In addition, it cannot be said that this study represents the population since it was conducted only for high school students from four schools in Taraz. Therefore, it is necessary to conduct new research, including more schools from different regions, in order to get more

information about the perception of the nursing profession among high school students in Kazakhstan.

Recommendations

Based on the results of the study, the following recommendations were formed:

- Nursing as a career should be strongly included in vocational guidance in secondary schools in order to raise awareness and build a positive perception regarding patient care.
- Conduct further research to assess high school students' perception of the profession of a nurse as a future career in all regions of the Republic of Kazakhstan, determining the socio-economic and cultural characteristics of each region.

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Appendices

Appendix 1. Permission to the research

Dear high school student!

I am conducting a study titled "Perspectives on the development of the image of a nurse among high school students as a choice of profession". My name is Makbal Nurlybayeva and I am a student in the Joint Program Master of Science in Nursing program at the Kazakh Medical University of continuing education and Master of Health Care JAMK University of Applied Science, Finland. The purpose of this study is to assess the perception by high school students of the image of a nurse and the nursing profession as a future profession.

You all are aware that the nurses are the backbone of the healthcare fundamentals in the delivery of quality care for all the inhabitants of a country. The perception of nurses and nursing professionals as a profession is vital for successfully attracting and retaining health care personnel. Currently, the image of a nurse and patient care as a profession is vital for our country.

The results of this study will be useful in providing opportunities for improving the quality of life of nursing professionals, who will ultimately contribute to the development of the nursing profession in Kazakhstan.

Through the questionnaire I want to ask you about your impressions and attitude towards nursing as a profession. Answers to the questionnaire will take about 20 minutes.

Participation in this study is voluntary. You can decide not to participate for any reason, now and at any time when you fill out the form. If you decide not to participate, this will not affect your education. Completion of this application form assumes that your consent has been given to participate.

The study has been approved by you, teacher, principal, and the school board. A summary of the results of the study will be made available to you, if you desire, through your teacher. If you have any further questions, you can contact me through your teacher.

This questionnaire is anonymous and confidentiality of your responses is guaranteed.

Thank you, for your time and attention to this questionnaire.

Sincerely,

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Appendix 2. Questionnaire

ID: _____

Demographic Information

Please respond to the following questions by placing a circle correct choice answer box that corresponds to your response

1. Your present grade level
 - 1) 11th grade
 - 2) 10th grade

2. Gender
 - 1) Female
 - 2) Male

3. Your present age is
 - 1) 15 years and younger
 - 2) 16 years
 - 3) 17 years
 - 4) 18 years
 - 5) 19 years and older

4. What language do you most often speak at home?
 - 1) Kazakh
 - 2) Russian
 - 3) English
 - 4) Chinese
 - 5) Other _____

5. Who is influence to you when choosing a profession (You can choose many items)
 - 1) Parents
 - 2) Relatives
 - 3) Friends
 - 4) My own decision
 - 5) Other _____

6. Are you considering nursing as your career choice?
 - 1) Definitely yes
 - 2) Probably yes
 - 3) Maybe
 - 4) Probably not

7. Your views and opinions on the nursing profession mainly come from:
 - 1) Watching TV
 - 2) Reading books, magazines or newspapers
 - 3) Studying nursing at school

- 4) Knowing someone who is a nurse
 - 5) Other _____
8. What salary do you think a nurse gets in a month?
- 1) Up to 39,000 kzt.
 - 2) 40,000 to 49,000 kzt.
 - 3) 50,000 to 59,000 kzt.
 - 4) 60,000 to 69,000 kzt.
 - 5) 70,000 above kzt.
9. How much you know about nursing
- 1) I have a lot of knowledge
 - 2) I have some knowledge
 - 3) I have a little knowledge
 - 4) I do not have any knowledge
10. Do you know someone that works as a nurse (You can choose many items)
- 1) Yes, one of the parents
 - 2) Yes, both parents
 - 3) Yes, other relative
 - 4) Yes, friend
 - 5) No I don't know
11. Do you know someone that works as a doctor or other professional (You can choose many items)
- 1) Yes, one of the parents
 - 2) Yes, both parents
 - 3) Yes, other relative
 - 4) Yes, friend
 - 5) No I don't know
12. What is your family reaction when talking about enrollment for nursing profession
- 1) Positive
 - 2) Neutral
 - 3) Negative
13. Reason why you would enroll for nursing (You can choose many items)
- 1) I would not
 - 2) The desire, together with the specialty nurses to obtain a certificate of basic secondary education
 - 3) Free study place (state grant)
 - 4) Financial reasons
 - 5) Desire to help others
 - 6) Desire to care about people
 - 7) Desire to care for sick people
 - 8) The desire to work in the hospital
 - 9) Advice from family members
 - 10) Like a white bathrobe
 - 11) Other _____
14. Where do you want to be trained to get nurses
- 1) To the medical college

- 2) Higher medical college
- 3) To university

What is your perception of nursing as a profession?

Directions: Please use the following definitions to select the best response to the following questions. Please circle your choice.

A – If you **STRONGLY DISAGREE** with the statement.

B – If you **DISAGREE** with the statement.

C – If you are **UNDECIDED** about the statement.

D – If you **AGREE** with the statement.

E – If you **STRONGLY AGREE** with the statement

		STRONGLY DISAGREE			STRONGLY AGREE	
15.	Patients select a hospital based on nursing care.	A	B	C	D	E
16.	Nursing care is as important as physical therapy.	A	B	C	D	E
17.	Nurses with bachelors degrees (BSNs) are better prepared to enter the nursing profession than nurses with associates degrees or diplomas (TaVE).	A	B	C	D	E
18.	Nurses work hard.	A	B	C	D	E
19.	Nursing is a profession.	A	B	C	D	E
20.	I respect the profession of nursing as much as the profession of law.	A	B	C	D	E
21.	The public has a positive image of nursing.	A	B	C	D	E
22.	Nursing is very complex.	A	B	C	D	E
23.	Nursing is a rapidly changing profession.	A	B	C	D	E
24.	Teaching health promotion and disease prevention in the community is as much a nursing responsibility as are other nursing roles in patient care.	A	B	C	D	E
25.	Nurses have considerable autonomy in their practice.	A	B	C	D	E
26.	Nurses are directly responsible for positive outcomes in their patients' health (e.g., prevention of secondary infections, fewer post-surgical complications, shorter hospital stays, etc.)	A	B	C	D	E
27.	Nurses should question medical orders that they judge to be possibly incorrect.	A	B	C	D	E
28.	Nurses need to learn skills that overlap with other healthcare staff skills	A	B	C	D	E

	(e.g., respiratory therapy, physical therapy, social work, etc.)	
29.	Optimum nursing care requires regular patient assessment.	A B C D E
30.	Patient education is an important part of nursing practice.	A B C D E
31.	Most patient complications are avoided when nurses do their jobs correctly.	A B C D E
32.	Nurses improve the quality of patient care by planning the care specific to each patient and carrying out the identified plan.	A B C D E
33.	Physician/nurse collaboration improves health outcomes for patients.	A B C D E
34.	Nurses make key decisions regarding their patients' care.	A B C D E
35.	If possible, nurses should care for the same patients every day.	A B C D E
36.	Nurses are very organized.	A B C D E
37.	The nurse is an important member of the health care team	A B C D E
38.	Nursing is diverse and offers many different career possibilities	A B C D E
39.	Nursing is challenging and rewarding	A B C D E
40.	Nurses are intelligent and creative.	A B C D E

A – If you **STRONGLY DISAGREE** with the statement.

B – If you **DISAGREE** with the statement.

C – If you are **UNDECIDED** about the statement.

D – If you **AGREE** with the statement.

E – If you **STRONGLY AGREE** with the statement

STRONGLY **STRONGLY**
DISAGREE **AGREE**

41.	The public considers nursing care to be as valuable as physical therapy.	A B C D E
42.	The public believes that nurses work hard.	A B C D E
43.	The public thinks of nurses as professionals.	A B C D E
44.	The public respects the profession of nursing as much as the profession of law.	A B C D E
45.	The public understands the complexity of nursing.	A B C D E
46.	The public perceives nursing as a rapidly changing profession.	A B C D E
47.	The public believes nurses are organized.	A B C D E
48.	The public believes the nurse to be an important member of the healthcare team.	A B C D E
49.	The public perceives nursing to be a diverse profession that contains many different career possibilities.	A B C D E

50.	The public sees nursing as a challenging and rewarding healthcare career.	A	B	C	D	E
51.	The public values the intelligence and creativity of nurses.	A	B	C	D	E

Thank you for taking the time to complete this questionnaire.

Appendix 3. Gathering questions on a public issue to the attitude of high school students

Item	STRONGLY DISAGREE		DISAGREE		UNDECIDED		AGREE		STRONGLY AGREE	
	%	F	%	F	%	F	%	F	%	F
The public has a positive image of nursing.	12.7	38	25.0	75	28.3	85	23.0	69	11.0	33
The public considers nursing care to be as valuable as physical therapy.	9,7	29	15,70	47	28,7	86	28,7	86	17.3	52
The public believes that nurses work hard.	10.0	30	16.0	48	32.7	98	24.0	72	17.3	52
The public thinks of nurses as professionals.	9.0	27	22.0	66	27.7	83	28.0	84	13.3	40

Appendix 4. Public perceptions of the image of nursing among high school students

Item	STRONGLY DISAGREE		DISAGREE		UNDECIDED		AGREE		STRONGLY AGREE	
	%	F	%	F	%	F	%	F	%	F
The public respects the profession of nursing as much as the profession of law.	10.7	32	23.0	69	33.0	99	20.0	60	13.3	40
The public understands the complexity of nursing.	8.3	25	28.0	84	26.3	79	26.0	78	11.3	34
The public perceives nursing as a rapidly changing profession.	15.7	47	22.3	67	24.3	73	25.3	76	12.3	37
The public believes nurses are organized.	14.3	43	24.7	74	28.7	86	19.3	58	13.0	39

Item	STRONGLY DISAGREE		DISAGREE		UNDECIDED		AGREE		STRONGLY AGREE	
	%	F	%	F	%	F	%	F	%	F
The public believes the nurse to be an important member of the healthcare team.	8,3	25	21,3	64	30,7	92	26,3	79	13.30	40
The public	14,7	44	20,0	60	27,7	83	23,3	70	14,3	43

perceives nursing to be a diverse profession that contains many different career possibilities.										
The public sees nursing as a challenging and rewarding healthcare career.	9,0	27	21,3	64	30,0	90	25,3	76	14,3	43
The public values the intelligence and creativity of nurses.	14,0	42	14,0	42	30,7	92	19,3	58	20,3	61

Appendix 5. The perception of the values of the scales of nursing among high school students

Item	STRONGLY DISAGREE		DISAGREE		UNDECIDED		AGREE		STRONGLY AGREE	
	%	F	%	F	%	F	%	F	%	F
Nursing care is as important as physical therapy.	14,7	44	33,0	99	18,0	54	22,7	68	11,7	35
Nurses work hard.	15,7	47	17,0	51	27,3	82	25,3	76	14,7	44
Nursing is a profession.	13,0	39	23,3	70	21,0	63	23,0	69	19,7	59
I respect the profession of nursing as much as the profession of law.	14,7	44	23,0	69	24,0	72	16,3	49	23,0	69
Nursing is very complex.	12,7	38	16,3	49	26,3	79	27,3	82	17,3	52

Item	STRONGLY DISAGREE		DISAGREE		UNDECIDED		AGREE		STRONGLY AGREE	
	%	F	%	F	%	F	%	F	%	F
Nurses are very organized.	11,3	34	16,7	50	28,0	84	30,3	91	13,7	41
The nurse is an important member of the health care team	9,3	28	14,0	42	22,3	67	32,3	97	22,0	66
Nursing is diverse and offers many different career possibilities	9,0	27	20,0	60	32,3	97	23,7	71	15,0	45
Nursing is	10,7	32	17,0	51	29,3	88	27,0	81	16,0	48

challenging and rewarding										
Nurses are intelligent and creative.	11,3	34	20,3	61	30,7	92	24,7	74	13,0	39

Appendix 6.
students

Perceptions of nursing practice among high school

Item	STRONGLY DISAGREE		DISAGREE		UNDECIDED		AGREE		STRONGLY AGREE	
	%	F	%	F	%	F	%	F	%	F
Nurses with bachelors degrees (BSNs) are better prepared to enter the nursing profession than nurses with associates degrees or diplomas (TaVE).	9,3	28	28,0	84	26,3	79	22,7	68	11.0	33
Teaching health promotion and disease prevention in the community is as much a nursing responsibility as are other nursing roles in patient care.	13,4	40	16,0	48	27,7	83	25,3	76	17.3	52
Nurses have considerable autonomy in their practice.	14,3	43	24,3	73	30,0	90	21,7	65	17.3	52
Nurses are directly responsible for positive outcomes in their patients' health (e.g., prevention of secondary infections, fewer	12,0	36	18,0	54	28,7	86	23,3	70	13.3	40

post-surgical complications, shorter hospital stays, etc.)										
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Item	STRONGLY DISAGREE		DISAGREE		UNDECIDED		AGREE		STRONGLY AGREE	
	%	F	%	F	%	F	%	F	%	F
Nurses should question medical orders that they judge to be possibly incorrect.	15,7	47	25,7	77	28,0	84	19,7	59	11.0	33
Nurses need to learn skills that overlap with other healthcare staff skills (e.g., respiratory therapy, physical therapy, social work, etc.)	10,0	30	20,7	62	25,0	75	28,0	84	17.3	52
Optimum nursing care requires regular patient assessment.	14,7	44	22,3	67	24,7	74	21,7	65	17.3	52
Patient education is an important part of nursing practice.	9,0	27	16,0	48	26,3	79	27,3	82	13.3	40

Item	STRONGLY DISAGREE		DISAGREE		UNDECIDED		AGREE		STRONGLY AGREE	
	%	F	%	F	%	F	%	F	%	F
Most patient complications are	31,0	93	15,0	45	23,0	69	16,7	50	11.0	33

avoided when nurses do their jobs correctly.										
Nurses improve the quality of patient care by planning the care specific to each patient and carrying out the identified plan.	9,7	29	30,3	91	18,7	56	27,3	82	17.3	52
Physician/nurse collaboration improves health outcomes for patients.	10,7	32	22,0	66	25,3	76	25,7	77	17.3	52
Nurses make key decisions regarding their patients' care.	14,3	43	28,7	86	23,7	71	20,0	60	13.3	40
If possible, nurses should care for the same patients every day.	11,3	34	16,7	50	28,0	84	30,3	91	13,7	41