

The role of nurses in the self-management of patients with bronchial asthma

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| <p>Abstract</p> <p>Self-management is crucial for patients with asthma to improve their quality of life. The role of the nurse is significant as well as the patient's own responsibility for their health. Nursing interventions are more likely to lead to desired self-management outcomes by focusing on the opinions of patients who are intensely involved in their own health.</p> <p>The purpose of this study was to explore the role of nurses in the self-management of patients with asthma from the patient's perspective. The objectives of the study were to find out how nurses can facilitate and improve self-management of patients with asthma and how nurses act in self-management of patients with asthma from the patients' point of view. The third objective was to determine how patients take responsibility for their own health.</p> <p>A qualitative approach was applied and a semi-structured interview used as a data collection method. The study participants were 20 patients with bronchial asthma. The data obtained were analyzed using thematic analysis.</p> <p>Results: The role of nurses in the self-management of patients with bronchial asthma from the point of view of patients was defined as follows: (a) providing spiritual and psychological support; (b) improving self-control; (c) providing practical assistance; (d) teaching and advising patients on self-management; and (e) patient taking care of themselves and taking conscious responsibility for their own health.</p> <p>Conclusion: According to participants, nurses help patients self-manage asthma by providing effective supportive care, support, advice, and training on self-management issues. These findings may help us to understand the importance of a stable interaction between the patient and the nurse at the level of primary health care.</p> | | |
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1 Introduction

Referring to the World Health Organization's (2017) estimate, about 235 million people worldwide suffer from asthma, or 4 to 10% of the world's population. By the Global Strategy for Asthma Management and Prevention (GINA) (2019), in different countries of the world, 1 to 18% of the population is affected by asthma. According to the guide Adult Asthma Care: Promoting Control of Asthma. Adapted clinical nursing guidelines (2019), Kazakhstan has about 1 million registered patients, but the actual number is several times higher. Over the past ten years, the global incidence of asthma is estimated to have increased by 50%. Most of which is accounted for by changing prevalence in small income settings. (Braman 2006, according to Marcano Belisario, Huckvale, Greenfield, Car & Gunn 2013.) The high incidence of the disease places remarkable tension not only on the health care system but on patients, their families, and the local community as well (Marcano Belisario et al. 2013).

The Global Strategy for Asthma Management and Prevention (2019) has defined asthma as a heterogeneous disease usually characterized by chronic inflammation of the airways and also a history of respiratory symptoms, chest tightness, and coughing that change with time and intensity, as well as alternating respiratory wheezes. Asthma is defined as an inflammatory respiratory disease characterized by increased sensitivity of the respiratory tract to endogenous or exogenous stimuli (Уход за взрослым пациентом с астмой: содействие контролю над астмой. Адаптированное клиническое сестринское руководство [Adult Asthma Care: Promoting Control of Asthma. Adapted clinical nursing guidelines] 2019.)

Developed health systems emphasize the importance of self-management and self-care service as a tool for increasing patient responsibility for their health (Foster, Taylor, Eldridge, Ramsay & Griffiths 2007, according to Marcano Belisario et al. 2013). Similarly, in Kazakhstan, the Ministry of Health discussed international experience and various approaches to implementing health management programs with the participation of international consultants in order to raise public awareness of health issues and the management of chronic noncommunicable diseases, aimed at reducing morbidity, complications, and mortality and creating a shared responsibility for health involving people. (Программы управления хроническими

неинфекционными заболеваниями [Chronic noncommunicable disease management programs] 2015.)

The concept of self-management is originally based on the self-efficacy theory of Albert Bandura (Creer & Christian 1976, according to Andrews, Jones, Mullan 2014). According to Grady and Gough (2014), self-management demonstrates its potential as an effective model throughout the entire process of prevention (primary, secondary, and tertiary), establishing a model of health in the early stages of life and developing strategies to mitigate the consequences of diseases and control them in later life. Based on the words of Kukol and Torkatyok (2020), self-management of a disease is to manage symptoms, treatment, physical and psychosocial consequences and lifestyle changes as well as the ability to manage your disease by virtue of cognitive, behavioral, and emotional responses to maintain a satisfactory quality of life.

Successful self-management is very important for asthma patients and it can enhance clinical outcomes and quality of life by training patients and giving them the opportunity to intensively participate in their own health (Kew, Malik, Aniruddhan, Normansell 2017). Van Geelen (2014) has suggested that successful management of the disease by patients themselves can only be achieved if a sufficiently broad effort is made to allow them to control themselves.

2 Theoretical background

2.1 Bronchial asthma as a disease

The National Review of Asthma Deaths (NRAD) found that many of those dying from asthma were treated for mild to moderate asthma, and 50% of those who died were not checked for their asthma by a nurse or therapist (The Royal College of Physicians 2014, according to Pickstock 2018). Asthma is a chronic disease affecting the respiratory tract, which is characterized by chronic inflammation. In patients diagnosed with asthma, symptoms vary significantly in nature and severity. Daily symptoms differ depending on the presence of external stimuli, such as exercise or allergens. (Global Strategy for Asthma Management and Prevention 2016, according

to Kew et al. 2017). Repeated asthma symptoms often lead to insomnia, daytime fatigue, and reduced activity levels (World Health Organization 2017)

Asthma, as a chronic disease, places a significant burden on people and health systems, as the morbidity, mortality, and economic burden of the disease have increased over the past 40 years (Braman 2006, according to Peytremann-Bridevaux, Arditi, Gex, Bridevaux & Burnand 2015). According to World Health Organization (2017), asthma is a public health problem not only for high-income countries. It affects all countries regardless of their level of development.

Asthma can be managed, but its treatment remains suboptimal (Kew et. all 2017). Even though asthma cannot be cured, proper management of patients allows them to keep the disease under control and lead a good quality life (WHO 2017). According to World Health Organization (2017), in order to control progressive severe asthma, reduce the number of attacks, and alleviate symptoms, every patient with asthma should learn what provoking substances they should avoid.

2.2 What causes asthma?

As reported by Grady and Gough (2014), the ability to independently manage chronic diseases directly depends on factors related to social and home environment and resources and can also be influenced by cool weather and poor ecology. In addition, according to World Health Organization (2017) the occurrence of asthma is influenced by genetic predisposition and factors such as cold air, excessive emotional excitement and exercise.

Tobacco smoke inhalation is one of the main factors contributing to the development or progression of asthma. Smoking further restricts asthmatic people's ability to live, contributes to their disability, and increases the risk of developing severe forms of asthma that require urgent care (Don't let tobacco take your breath away/ WHO 2019).

2.3 The role of a nurse in asthma care

Nurses are responsible for developing complex based on evidence-based research, training, and support for staff in the field of clinical practice. A nurse can apply a variety of skills to develop care and management regimes that are appropriate for each individual patient. (Wooler 2001.) The best practice guidelines by Registered Nurses' Association of Ontario (RNAO) (Adult Asthma Care: Promoting Control of Asthma 2019) taking into account that evidence-based medicine helps achieve optimal levels of asthma control, calls for nurses to provide comprehensive care for patients with asthma and assist in asthma control.

The level of medical literacy is also a significant factor in clinical results, including in cases of bronchial asthma. Literacy is defined as the ability to obtain basic medical information, analyze and understand it, and make the necessary decisions about patients' health. (GINA 2018.) According to the Global Strategy for Asthma Management and Prevention (2018), collaboration between patients and a good understanding between nurses is the basis for a better outcome of the disease and to help increase patient satisfaction, training nurses at improving communication skills plays an important role.

The nurse is instrumental in educating the patient as well as advising relatives on inhalation devices. Nurses should be able to give an informed opinion about the choice of inhalers, the correct demonstration of their use, and of course praise and encouragement, as well as support for the patient is vital. (Wooler 2001.) Most patients (up to 70–80%) are unable to use the inhaler correctly and most people who use the inhaler incorrectly are unaware of this. Therefore, the use of an inhaler requires skills that need to be learned and maintained for effective administration of the drug. (GINA, 2018).

The use of self-management plans indicates that the way forward is to form a permanent partnership with patients (Partridge 1990, according to Jones, Pill & Adams 2000). This allows the patient to learn to manage their disease appropriately when the first signs of acute bronchial asthma appear (Lahdensuo 1999, according to Jones et al. 2000). The self-management scheme should combine important elements, i.e. integrate the medical agenda with the patient's interests in the future.

Both responsibilities are separated, which means that healthcare professionals as well as patients must determine the goals of care. (Thoonen & van Weel 2000.)

2.4 Patient's responsibility for health

We will be rewarded with feeling better and spending less money if we follow a healthy lifestyle (exercise, maintaining a healthy weight, and do not smoke) and are good patients (observing our appointments, listening to the advice of our doctors and nurses). This is the notion of personal responsibility in healthcare, as Steinbrook (2006) points out in his work.

According to authors Grady and Gough (2014), self-management programs introduce individual responsibility and offer patients tools to care for their diseases and develop the practice of providing information, increasing the level of knowledge of patients.

To maintain and improve their health and to stay in the enhanced plan state, patients must maintain their medical appointments, receive screenings, take timely medications, and follow up on improving health plans. There are also several reasons patients may not meet these requirements of medical recommendations, such as poor nurse-patient communication, side effects of medications, a recommendation that is unclear to patients. (Steinbrook 2006)

2.5 Education of patients in bronchial asthma

Self-management education improves knowledge and allows patients to be motivated and confident in managing their asthma (Roy, Schultz, Carson, Smith, Powell, Wilson 2011, according to Grammatopoulou, Skordilis, Haniotou, John & Athanasopoulos 2017). To achieve a positive result, self-management education gives strength and strengthens patients with asthma (Clark, Griffiths, Keteyian & Partridge 2010, according to Grammatopoulou et al. 2017). This improves the ability to cope with symptoms, physical and social consequences, and lifestyle changes (Barlow, Wright, Sheasby, Turner, Hainsworth 2002, according to Grammatopoulou et al. 2017)

The effective outcome of asthma care requires the development of collaboration between the patient with asthma and medical professionals. This approach should enable the patient to acquire the knowledge, confidence, and skills necessary to play a major role in managing their disease. (GINA 2018.)

In general, nurses and those working in the field of respiratory health play an active role as health promoters and patient educators to maintain optimal health for patients with asthma. Integration of planned health education or health promotion activities in nursing practices is aimed at health promotion, patient education, and health management in primary health care. (Murray & O'Neill, 2018).

The education of patients to manage their own asthma is widely recognized as an integral part of achieving their care goals (Gibson 2002, Guevara 2003 according to Kew et al. 2017). Self-management education emphasizes the interaction between the patient and medical professionals for making medical decisions in health relations (Warsi, Wang , LaValley, Avorn & Solomon 2004, according to Grammatopoulou 2017). Using this knowledge, patients identify their problems and try to solve them themselves (Paasche-Orlow et al. according to Grammatopoulou et al. 2017).

According to Adult asthma Care: Promoting Control of Asthma guideline (2017), innovative plans have been developed, including written patient education programs, video materials, audio cassettes, computer materials and these self-management training programs have shown some improvement in health outcomes. Additionally, authors Kew and Cates (2016) have proposed communication technologies such as phones and video conferences to remotely examine and consult about asthma. Also, according to authors Kew and Cates (2016), McLean (2013) described this area as "using information and communication technologies to deliver long-distance care and to support patient self-management through remote monitoring and personalized feedback".

2.6 Self-management of an asthma patient

Wooler (2001) cites the words of Florence Nightingale from her book "Notes on nursing", that elements of nursing practice are developing at a much faster pace than

before and may seem an unknown creature. Asthma management is an area of the disease, with the goal of providing a consistently high standard of living where professionals can work in collaboration with each other and with other patients and families (ibid).

Joint decision-making allows to balance the effectiveness and safety of treatment, considering the importance and preferences of the patient and the opinions of health professionals. Referring to disease management, the role of the patient-nurse partnership for a collaborative management approach is increasingly recognized. The nurse conducts various activities aimed at changing the patient's behavior in everyday life, offering open communication, and forcing to identify and solve the problems of patients and their relatives in connection with bronchial asthma and its care, taking into account the care and obstacles to implementation, and to promote active self-assessment and self-management. (Kew et al. 2017.)

2.7 Supporting patient in self-management

Coleman and Newton (2005) argue that supporting patient self-management is a key component of effective chronic asthma care and improving patient outcomes. According to them, self-management support is a process of making changes in health systems and communities to facilitate self-management of patients.

Living with a chronic disease requires support for a satisfactory quality of life and thus defines the role of patient care support in self- management. This activity strengthens the role of health professionals in self- management. Nurses have an important role to play in self-management support because they need to understand how asthma will affect a person's daily life. (van Hooft, Dwarswaard, Jedeloo, Bal & van Staa 2015).

By discussing specific goals related to asthma management and self-care, nurses can help and support, alongside explaining that with good supervision with the individual, written asthma action plan, an effective result can be achieved. The simplicity of management and treatment is that actions such as reducing the number of medications and inhalers, are identified as an important aspect of management and are another practical approach for medical professionals. An invaluable

opportunity is to negotiate between patients and healthcare professionals about the priority role in achieving care outcomes and goals. The partnership between them must be effective and close. (Haughney, Barnes, Partridge & Cleland 2004.)

2.8 The role of nurse in the self-management of asthma

Based on RNAO guideline Adult Asthma Care: Promoting Control of Asthma (2019), nurses should perform a full assessment of asthma control at each appointment and should be aware of all the criteria for asthma control in order to effectively communicate with the multidisciplinary medical team and make a care plan. The importance of self-monitoring and regular check-ups by healthcare professionals to monitor symptoms and encourage adherence to preventative inhalers is now well recognized, especially for people at high risk of severe asthma attacks (NRAD 2014, accorgind to Kew, Cates 2018).

As directed by the Global Initiative for Asthma (2015), self-monitoring includes a peak flow meter and awareness of symptoms, information on how to avoid asthma triggers, smoking cessation, lifestyle training, and participating in physical activity. According to authors Morice and Wrench (2001), the goal of asthma treatment is to better control asthma where symptoms are treated with medical care and are effectively self-managed, it should be noted that this is not an easily achievable goal, but requires providing sufficient knowledge.

3 Purpose, objectives and research questions

The purpose of this study is to explore the role of nurses in the self-management of patients with bronchial asthma from the patient's perspective.

Objectives:

Firstly, the goal is to find out how nurses can facilitate and improve self-management of patients with bronchial asthma, and secondly, how nurses act in self-management of patients with bronchial asthma from the point of view of patients. The third objective is to determine how patients take responsibility for their own health.

Research questions:

1. What is the role of a nurse in facilitating and improving self-control of patients with asthma?
2. What recommendations on self-management do patients receive from nurses?
3. How do patients describe taking responsibility for their health?

4 Research methodology**4.1 Qualitative research approach**

The qualitative research method was used to study the role of nurses in the self-management of patients with bronchial asthma. The qualitative methodology of the 1930s was developed by Stephenson to study people's values and beliefs (Stephenson 1935 according to van Hooft et al. 2015.) According to Flannery (2016), due to the variety of qualitative approaches, qualitative research is based on several perceptions and understanding. The definition of a qualitative research by Powers and Knapp (2006) is appropriate for the purpose and objectives of this study. They defined this term to refer to many different research traditions related to the study of human experiences in the natural contexts in which they occur, with the goal of understanding people's reactions and the meanings that they bring to their experiences. Based on the opinion of authors Holloway and Galvin (2016), researchers use qualitative approaches to the study of the behavior, feelings, and experiences of people and allow the subject to describe and interpret the meanings of their experience and the world around them. This study aims to find out the role of nurses in facilitating and improving self-control in patients with asthma from the point of view of patients and disclose the patient's responsibility for their health.

One of the most important concepts in all qualitative constructions is the context, that is, the clinical problem (Flannery 2016). In this study, there is a phenomenon and the interest is the opinion of the patient taken from their experience concerning their own health. The concept and context of integrated orientation in nursing practice is inevitably related to nurses, as they are seen as the practice of caring for individuals (Flannery 2016). Therefore, based on the author's ideas, this study

explores the importance of nursing in the practice of respiratory care, especially for asthma.

4.2 Data collection method

The purpose of the qualitative methodological study is to identify different opinions on a topic (van Hooft et.al 2015). As noted by the authors Holloway and Galvin (2016), researchers usually turn to participants to figure out their concepts in order to collect rich and deep data. Interaction between researchers and participants leads to an understanding of the experience and disclosure of the essence of the phenomena.

As Connelly and Peltzer (2016) pointed out, the purpose of an interview is to make sure that, in order to examine the purpose of the study, the data collected answers the research question. In this study, an interview was used to disclose the research question and thus to achieve the research goal. The purpose of the interview is to identify the feelings, perceptions, and thoughts of informants (Holloway & Galvin 2016), and the interview provides a mechanism for collecting information (Connelly & Peltzer 2016). Based on Connelly and Peltzer (2016), this allows researchers to collect a large amount of data to understand the practical phenomenon by knowing the views of patients—in this study the views of patients about practical nursing care, how they perceive information about their illness and worry about their health.

The interview involves using the formats of an open and semi-structured interview guide with a conversation style that allows the interviewer to identify hidden emotions, thoughts, and meanings (Powers & Knapp 2006). However, the interviewer organizes interviews to acquire information from participants, as opposed to everyday conversations (Holloway & Galvin 2016). Semi-structured or focused interviews are widely used in qualitative research methodology (Holloway & Galvin 2016, 139; Tod 2015, 391). Researchers prepare for the interview in advance by reviewing the questions that the research should answer and the questions that they want to ask the study participants (Powers & Knapp 2006).

4.3 Participants

The participants of this study were patients with bronchial asthma from Almaty city polyclinics, who were previously registered at a dispensary. The number of participants was 20 people with bronchial asthma, including 4 men and 16 women. The age characteristics of participants ranged from 18 to 64 years old.

At the beginning of data collection, the researcher discussed and explained to the participants the goals and objectives of the study and the procedure for conducting the study. All participants were informed orally and in writing and signed an informed agreement before taking part in the interview.

4.4 Data analysis method

All data was analyzed using thematic analysis. Thematic analysis is an accessible, flexible, and increasingly expanding system (Braun & Clarke 2012) that is linked to qualitative research analysis (Vaismoradi, Turunen & Bondas 2013). It is a method of systematic identification, systematization (Braun & Clarke 2012), and it describes the human experience and answers questions about what a person feels and wants to say (Vaismoradi, Turunen & Bondas 2013).

Thematic analysis consists of several phases. Phase 1 is getting to know yourself along with the data. (Braun, Clarke 2012) (Javadi, & Zarea 2016) According to the authors (Braun & Clarke 2012), the purpose of this phase is to familiarize yourself with the content of the data set and start paying attention to things that may be relevant to your research question. In this phase the researcher should reread the respondents' answers several times to understand the main idea and deeper meaning of the respondents' opinions. (Javadi & Zarea 2016)

Phase 2 begins with system analysis of data through coding. As Braun and Clarke noted (2012), codes are the building blocks of analysis, which can be performed at the semantic or latent level. An example of this is presented in Table 1.

Table 1. Example of derived codes

| Meaning unit | Codes |
|---|--|
| Nurses role of a nurse in working with patients with BA is to prevent diseases and care for them, as well as in terms of psychological work is very important | Consultation psychological support |
| The nurse should monitor the nature of the cough | pay attention to the nature of the cough |
| It is important for a nurse to be able to recognize an asthma attack | recognize an attack |
| Conducting breathing exercises and simple physical exercises | breathing, physical exercises |

Phase 3: Searching for Themes

At this stage, the analysis begins to take shape, moving from codes to themes. The topic captures something important in the data and the research question is answered, and the themes represent some level of template response. Although this active process is called “searching for themes”, themes are only created or constructed at this stage, not analyzed. (Braun & Clarke 2012) (See Figure 1.)

Different codes can be combined to form a common theme code and then build a theme. At the same time, the relationship between different codes and themes must be kept in mind. It is useful to use constructions in the form of an intelligent map, or schematic diagrams on paper. Then the intended thematic map appears, which is not the final option, and then the process of analysis develops (Javadi & Zarea 2016)

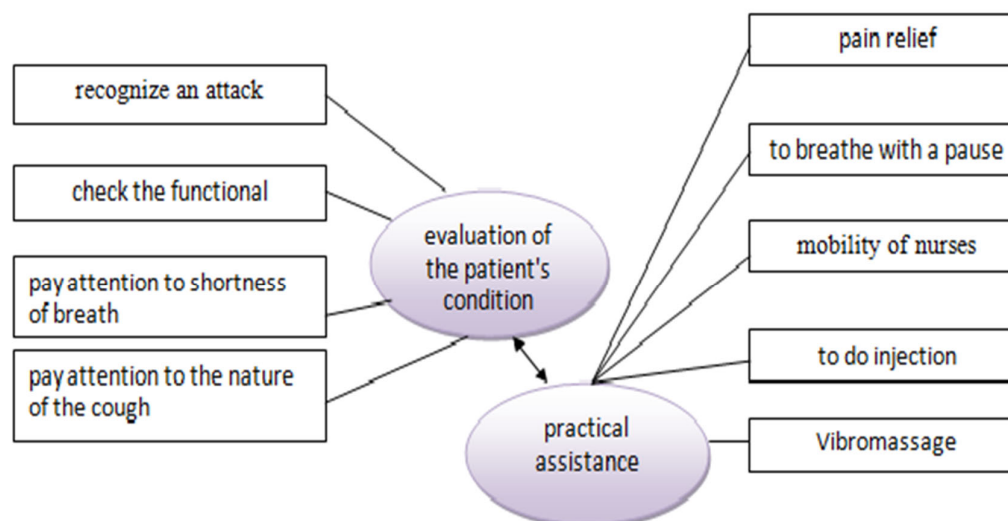


Figure 1. Example of derived categories

Phase 4: Reviewing Potential Themes

In this phase, two main principles should be noted regarding the characteristics of the topic: internal homogeneity and external heterogeneity. Inside the topics should be meaningfully linked to each other. The essence of this phase is to have a good idea of what distinguishes topics, how they are combined, and the whole story that describes the data received. (Javadi & Zarea 2016)

Phase 5: Defining and Naming Theme

When defining your topics, you should be able to clearly articulate (Braun and Clarke 2012) and at the same time review and clarify how you analyze. In this way, you reach the essence of the topic by defining and clarifying. In this paper, six topics were developed, and each topic had a category with the idea of describing the data received (See Figure 2). This allows to understand what the topic is about and what aspects of data are covered by this topic. (Javadi & Zarea 2016)

Phase 6: Producing the Report

This phase begins after a set of good topics is found and a final analysis and report is written. It is important to note that the story about topics should be clearly,

consistently, and logically expressed, without repetition. The given essence should be easily recognized (Javadi & Zarea 2016).

5 Trustworthiness

To ensure the quality of the study, it must have reliability, which refers to the degree of confidence in the data and research methods used. The items outlined by Guba and Lincoln (1985), which have been accepted by many quality researchers, are credibility, dependability, confirmability, and transferability; they subsequently added additional dimensions of authenticity. (Connelly 2016.) Each sets out the criteria and procedures normally applied.

Credibility

The reliability of the research is an important criterion for the reliability of the research results. In the same way, this research was built on a theoretically sound foundation based on similar research.

Dependability

The study was conducted in three clinics in Almaty. Data was collected in the form of interviews. Participants in the interview were patients diagnosed with asthma. An audio recording was included in the interview while studying the research questions.

Confirmability

According to Connelly (2016), confirmation is the degree of consistency of the findings, which can be neutral or repeated. Quality researchers keep a complete record of all their research with decisions made and their analysis. In this study, data collection is analyzed by thematic analysis.

Transferability

The result of a study must be applicable. In this study, a form of ten questions was provided, in which participants helped to describe in detail, from their point of view, the role of a nurse in self-management of asthma and their experience about care and self-management of symptoms. From the point of view of this study, the collected data from the participants allowed the researcher to answer the research

questions. It is important to note that the conclusions of this study cannot be generalized due to the uncertainty as to whether or not sufficient time and access was given to the participants' stories and describing their own opinion. This could have had a positive impact on their participation in the description.

6 Ethical issues of this research

According to Bruce, Berg, and Lune (2012, 61), researchers must ensure the rights, privacy, and well-being of the individuals and communities they study and make ethical commitments to society as a whole. In this study, the material collected during interviews with patients will be fully encoded, so that all information will be depersonalized and patients will not be identified. The research material is stored in a closed cabinet to which only the researcher has the key. The researcher undertakes to comply with the applicable guidelines for the preservation of research legislation and data protection. One of the basic principles of ethical sociological research is the concept of "do no harm". This means that in the sense of this word, no physical and emotional (psychological) harm is caused. This study retains all ethical rights, and the study is conducted without coercion of the participants.

7 Results

7.1 Providing spiritual and psychological support

Two topics were identified as the main goal to find out how nurses can facilitate and improve self-management of asthma patients: "communication" and "spiritual and psychological support", "support for relatives". Communication was characterized by "communication skills" and "the openness of the patient" (Figure 2).

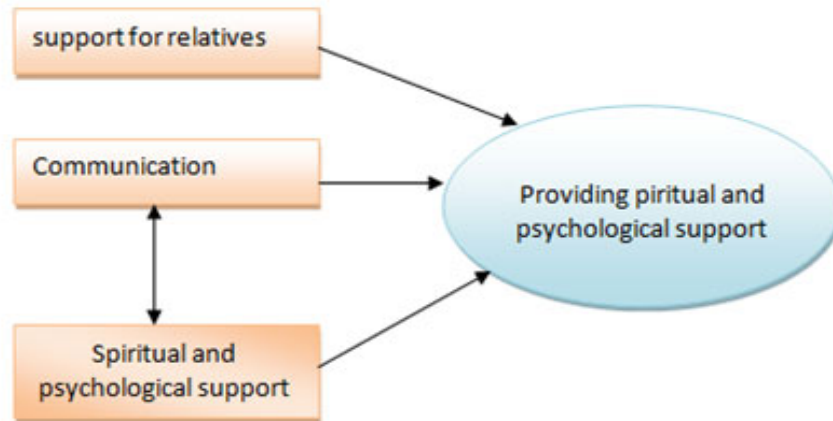


Figure 2. Providing spiritual and psychological support

Participants responded that a nurse should be able to talk to patients, and many people want a nurse to talk and share their knowledge.

"The nurse must first talk to the patients..." (P4)

"I want the nurse to talk and share the knowledge" (P7)

"The nurse should talk, ask about the condition after yesterday's ill health..." (P15)

And from the point of view of many participants, it turned out that patients want the nurse to ask more about their conditions and their well-being. Another participant expressed her opinion as follows:

"first, the nurse must talk to the patients as adults, we are not small children" (P12).

The patient wants respect for themselves and their health from nurses. Through communication, the patient's characteristics and professional characteristics of the nurse are revealed.

"Spiritual and psychological support" and "support of relatives" were characterized by the following: psycho-emotional support, motivation, relief, peace, support, and intervention of relatives. Participants stated that nurses should choose the right words of support for patients, as well as show a positive emotional state and

motivate patients to a favorable outcome. Some felt better after receiving support from nurses and found relief and peace of mind.

"I, who was at that moment in a state of dejection and even doom, was reassured and encouraged by the words of the nurses" (P6)

According to participants, various experiences, anxieties, fears, and constant thoughts about the disease affect the patient's psyche. Nurses need to treat them kindly, respectfully, and calmly.

Participants believed that relatives of patients support and help alleviate the feeling of fear in case of an asthma attack.

"I listen to my children, what they say to the nurse's recommendations and try to do..." (P16)

"Constantly being in a sense of fear is unpleasant, but relatives help alleviate this". (P4)

By reaching out, patients receive comprehensive support for the disease. Based on this, spiritually and psychologically supporting the patient together with the patient's relatives through communication facilitates the life of the patient with asthma.

Participants also felt that supporting patients in self-management with the participation of relatives is the most effective and available action.

7.2 Improving self-control

Two topics were once again identified as the main goal to identify and find out how nurses can facilitate and improve the self-management of asthma patients: "stable interactions" and "attitude to the nurse". (Figure 3). "Stable interactions" is defined as an increased responsibility by self-reporting, the monitoring of implementation, and warning about the turnout. According to participants, nurses asking each patient to self-report or report for the current period can improve the patient's condition and possibly increase responsibility, but everyone is still responsible for their own health.

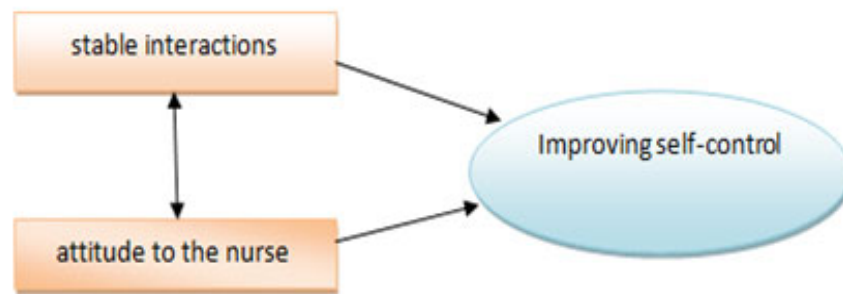


Figure 3. Improving self-control

Codes such as “trust professionals”, “find out from professionals”, “grateful to the nurse”, “competent nurse”, and “satisfied” describe the topic “attitude to the nurse”. By noticing all this and referring to the patients' opinions, the interaction and understanding between the patient and the nurse will help to improve the self-control of patients with asthma.

“The last meeting with the nurse went very well, my nurse is very competent and knows her job. Explains everything, answers me at any time” (P3)

“The last meeting with the nurse went well. Gave a recommendation, asked about the current control, how I take care of myself, during whether I take medication well, about all this...” (P5)

“My nurse always told me what to do, helps us, gives us medicine on time and for free, thank you very much for always helping us” (P8)

“The nurse checked my condition, examined my chest, measured my blood pressure, asked about my health status, current asthma control, warned my next arrival, and gave some advice” (P12)

In addition to these, several participants approved the same thing that if they have questions about the disease and when implementing recommendations, they want to learn from the nurses and trust them. Furthermore, several participants approved the same thing that if they have questions about the disease and when implementing recommendations, they want to learn from the nurses and trust them.

Based on this, it can be noted that stable interaction, good insight, and a warm relationship between the patient and the nurse increase the responsibility for self-management of the patient with the disease.

7.3 Providing practical assistance

Based on patients' opinions, this main topic, "providing practical assistance", was characterized by the topics of "practical assistance" and "evaluation of the patient's condition". (Figure 4). Their opinions were encoded as follows: the nurse should help the patient, teach him to breathe with a pause, and the nurse can do a vibration massage of the back, pay attention to the attack at rest, and so on.

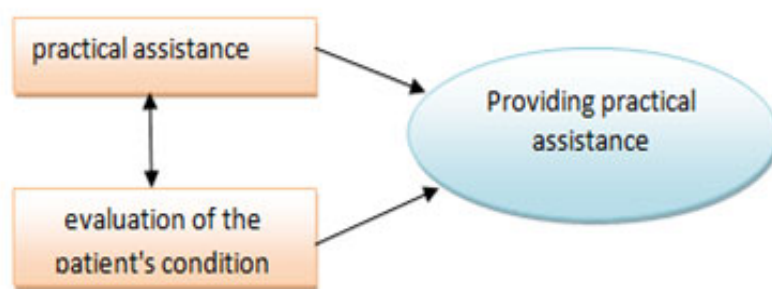


Figure 4. Providing practical assistance

Based on the views of participants, the nurse providing practical assistance eases the patient's pain and also teaches the patient self-help.

"The nurse should help the patient, teach the patient how to help with shortness of breath" (P7)

"The nurse relieves the patient's pain by giving injections" (P9)

Participants believed that with a physiological problem, including respiratory disorders, nurses can teach to breathe correctly. To prevent respiratory discomfort, breathing exercises are performed. To clear the airway, the nurse can do a back massage with a light blow. One of the participants expressed his opinion about this:

"the breathing is continuous, without a pause, I try to pause, and then it becomes a little easier". (P7)

It is important to teach control to the patient for them to help themselves by constantly checking their functional state. It is important to pay special attention to frequent colds, coughs, and shortness of breath at rest. Nurses need to teach the patient and their family to take care of their health.

7.4 Training and advising patients on self-management

Categories such as “consultation” and “training” were used to develop this main theme. (Figure 5). The consultation category was characterized by codes, information, and a thorough explanation about the disease, instructions for the use of the drug, advice on the use of medications, and promotion of a healthy lifestyle. A training category was defined by codes, use of an inhaler, and teaching the patient proper care and self-help.

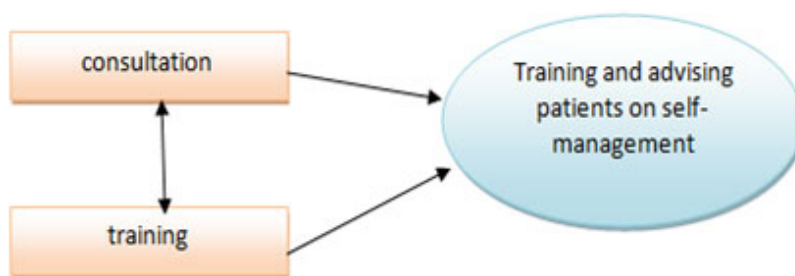


Figure 5. Training and advising patients on self-management

Part of a nurse's job is to notify and educate patients. The nurse conducts a conversation with the patient in order to provide them with complete, accessible information about the disease. Some of the participants felt that it is important to explain to the patient and his relatives the features of the disease and care. The nurse should thoroughly present recommendations for care.

“Nurse guiding to the right path by explaining, conducting propaganda about a healthy lifestyle” (P3)

According to participants, the nurse should teach the patient to help with shortness of breath and train the patient to use the inhaler correctly and breathe correctly as well as explain and guide the patient to proper care and monitoring of implementation. In addition, during the consultation, the nurse should explain the order and regularity of the use of medicines. Referring to the opinion of the participants, patients want to learn this information from nurses and not from the Internet.

“The use of an inhaler I have seen and learned from the Internet” (P12)

“A nurse should help and teach. The procedure for taking medications, using an inhaler. We are not a doctor or a nurse. I don't know, I'm a patient. Sometimes they do not fully speak, I read it from the Internet, I will ask my medical friends.” (P15)

According to the opinions of participants, consultations and practical training, such as using an inhaler with a demonstration, are important in self-management.

7.5 Patient taking care of themselves

Codes such as “awareness of the importance of self-care”, “refusal of smoking”, “avoiding excessive physical activity”, “protection from allergens”, “personal hygiene care”, and other semantic codes characterized the category “care of yourself”. In addition, codes such as “based on your experience”, “to help yourself”, “this will do without calling an ambulance”, “can provide assistance”, and “patience” characterized the “experience” category. The main theme was determined from these two categories. (Figure 6).

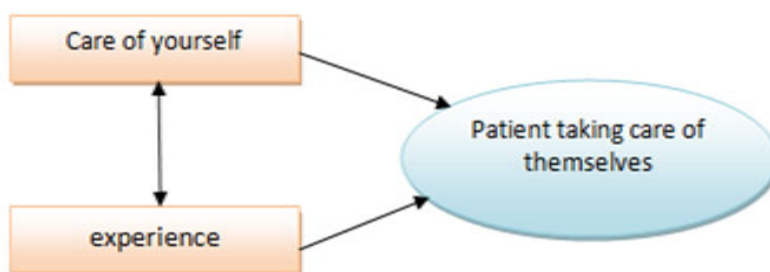


Figure 6. Patient taking care of themselves

According to participants, many patients take care of their health. They follow the rules by organizing and controlling daily life. This includes strengthening the immune system, eating properly, avoiding hypothermia, and preventing exacerbation of bronchial asthma, and some patients have given up smoking.

"I forbade my relatives to smoke indoors and quit smoking myself" (P2)

"If possible, I will try to avoid getting irritants and allergens into the respiratory tract both in indoor and outdoor spaces" (P4)

"To prevent my asthma from getting worse, I follow the nurse's recommendations, take my medication correctly and keep my room clean" (P12)

"When I walk 50 meters I get shortness of breath so I do not load myself with physical activity and in cold weather I try to stay at home" (P16)

In addition, based on the opinion of participants, some expressed that they monitor their weight, walk in the fresh air, do gymnastics, and try to keep a diet and take medication in a timely manner.

Patients who care for themselves and are experienced can help themselves when their condition worsens, and they promote the experience and say that they know more. This confirms the words of the participants that patients during suffocation can be provided with such assistance as access to fresh air and inhalers.

"I can help myself, all asthma patients can help themselves, and they can't wait for a nurse" (P7)

"In 17 years, I know more than anyone else..." (P11)

One participant expressed her opinion as follows: "during an attack, it can be difficult due to lack of air, but I try not to call an ambulance because it is not the first time".

As a result, according to the participants, patients with asthma observe discipline and take care of themselves. Self-care is the basis of the patient's experience with asthma and oversees the rest of their life.

7.6 Conscious responsibility for their own health

Two categories defined this main theme: "personal responsibility for your health" and "psychological state of the patient". (Figure 7). The first is characterized by the following codes: fulfills the recommendation as it should, aware of the responsibility, and compliance with discipline. The second category is characterized by the following codes: understand that panic is not good, tries to manage emotions, inside thoughts, and feelings of fear and death.

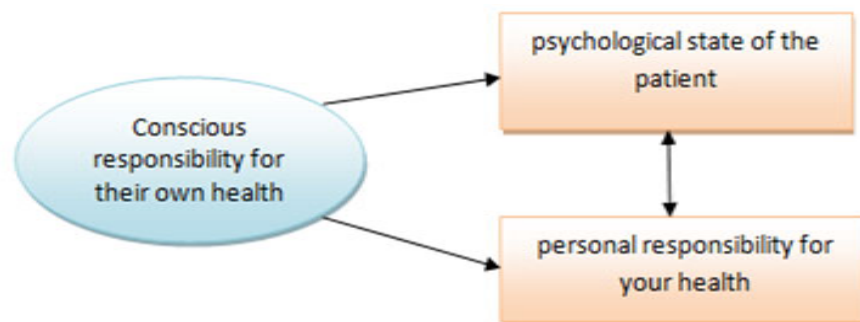


Figure 7. Conscious responsibility for their own health

Referring to the opinion of participants, some patients adapted to the attack of shortness of breath, but nevertheless, it is difficult for the patient due to the lack of air. They felt pity for themselves for having incurable asthma and torment from the disease since it is unpleasant to constantly be in a state of fear.

"I'm very worried, if I'm honest, that I got sick with asthma." (P5)

"I am concerned about my health, I will be fine for a week and then the symptoms are bothered again. Why is there no treatment for asthma?" (P8)

Based on the expression of participants, some patients try to control their emotions and avoid negative situations because they know the consequences to their health.

"As I have already noticed, my illness is aggravated by emotional stress. Therefore, I will try to avoid any negative consequences." (P9)

Some participants experienced the fear of death when they have an attack, and they were left with the fear of the recurrence of such an attack:

“Asthma is a bad disease, suffocating. During the attack I can't breathe until I take the medicine I almost die.” (P15)

According to the participants, the patients take care of themselves through the provision of practical assistance, for example, patients will try to maintain their health and follow all the recommendations of the nurse. Their responsibility for their health was heightened by the emotions of the situation and the fact that they allow themselves to pass through it. According to the participants, many patients realized the value of health and expressed the opinion that a healthy person can do, achieve, and show much more than a sick or just a weak person.

“Health is the greatest value. In my opinion, this is true. Almost everyone knows this, but not everyone is aware of it.” (P13)

“I and only I am responsible for my health, because my overall health depends on me to a greater extent” (P7)

According to the opinion of the participants, self-care and responsibility brings peace of mind. Everyone is responsible for their own health instead of someone else.

8 Discussion

The purpose of this study was to study the role of nurses in the independent management of patients with bronchial asthma from the point of view of the patient. This goal was achieved by finding out how nurses can facilitate and improve self-management of patients with asthma, and how nurses act in self-management of patients with asthma from the point of view of patients and by determining how patients take responsibility for their own health. Six of the most important results were identified in achieving these goals: providing spiritual and psychological support, improving self-control, providing practical assistance, teaching and advising patients on self-management, taking care of the patient, and taking conscious responsibility for their own health.

The first question in this study was answered using results such as providing spiritual and psychological support, and improving self-control.

One of the main problems of the participants involved in this study was constant anxiety, various experiences of the disease. According to participants, this affected the patient's psyche. As mentioned in the literature review of Borhani, Asadi, and Mohsenpour (2012) (according to Kheyraadi, Malekian, Fakharzadeh, 2007), a patient suffering from asthma has many psychological problems. Noticing the opinions of participants in this study, the results show that nurses provide spiritual and psychological support in relieving the disease by using their communication skills. This is the strong side of the research result. Prior studies that have noted the importance of communication by McDonald and Gibson (2006) have stated that good communication will foster a partnership between nurse and patients that makes the nurse listen to the patient's point of view and beliefs, as well identify immediate and long-term problems. As mentioned in the literature review, Mendes (2015) noted that the psychological health status of an asthma patient is rarely discussed although it plays an important role in self-management readiness. It further found that patient support is significant when caring for patients with long-term conditions.

In addition, according to the results of this study, participants noted that due to stable interaction with the nurse and requiring self-reporting for the current period, the patient's self-control improved as a result. This finding is consistent with that of McDonald and Gibson (2006), who showed that self-control is one of the most important components of the self-management of asthma.

Providing practical assistance was another finding of this study. Participants explained that in addition to the injection, they receive recommendations from nurses to do manual therapy, such as massage and therapeutic exercises. As shown by Hondras, Linda, and Jones (2002) and confirmed in their research results, massage therapy showed significantly good indicators of lung function.

In addition to providing practical assistance, the nurse trains and advises patients on self-management issues. Thus, the answer to the second question was found in this research paper. Participants in this study faced many questions about their illnesses. They expressed their need for opinions such as providing care recommendations, regular use of medications, etc., the main things they want to learn from the nurse. As mentioned in the literature review (Wooler 2001, according to Horne 1993), the

nurse should be more easily accessible and able to spend time studying the patient's health beliefs and discussing their problems, fully informing them of the care strategy. Wooler (2001) further argues that a nurse may have the advantage of an extended consultation to discuss the patient's health needs and conduct training to have a positive impact on patient care. A study conducted by Horne (Wooler 2001) stated that medical professionals should understand and solve the individual patient's problems. These results confirm the association between these research results that a nurse, noticing individual patient problems, trains and advises patients on self-management issues.

All participants in the study considered themselves responsible for their health. They believed that negative emotions and failure to follow the nurse's recommendations for care will lead to the progression and worsening of symptoms. Having noticed this, they organized and controlled their daily life, took care of themselves based on experience and hoped for a successful outcome in the future. To preserve their health, they took care of themselves and provided practical self-help at the right time and were able to take preventive measures. Taking into account the experience of illness, they realized the value of health, and many were of the opinion that good health allows a person to reach much greater heights. This was the answer to the third question of the study—patients taking care of themselves consciously take responsibility for their own health. These results corroborate the ideas of Forthofer and Bryant (2000) (according to Hong 2009), who suggested that people with high health consciousness are considered “targets of greatest risk” because they are more likely to be willing to take preventive health measures behavior. It is further reported that medical interventions are more likely to succeed in achieving the desired results by focusing on people who care about their own health. (Forthofer & Bryant 2000, according to Hong 2009)

9 Conclusions

To sum up, nurses play an important role in facilitating and improving self-management of patients with asthma. When the patient is depressed due to the very presence of the disease and to reduce the fear of an attack, the nurse provides spiritual and psychological support to the patient. Improving self-control by providing

effective, supportive care improves the self-management of patients with asthma. To achieve more effective self-management, patients receive advice and training on self-management issues as well as practical assistance from nurses.

Nurses working with patients with bronchial asthma are encouraged to perform the following actions:

- informing the patient and their relatives (conducting a conversation, providing available information about the disease in the form of methodological recommendations) and
- training the patients (using an inhaler, correct breathing techniques, teaches and shows practical help during the reception).

It is recommended, that nurses pay attention to the counseling of the patient and their relatives about the chronic disease in the form of methodological recommendations, and train the patient in self-care methods to improve the patients health.

These findings may help us to understand the importance of a stable interaction between the patient and the nurse at the level of primary health care. Further research should be undertaken to examine the patients' knowledge and skills on asthma since self-education in asthma is a fundamental requirement for effective asthma care.

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Appendices

Appendix 1. Search strategy

| Name of the database | Search terms/key words and combining terms (or/and/not) ² | Search from the year to year ³ | Language ⁴ | Date of search ⁵ | Results (number) ⁶ |
|----------------------|--|---|-----------------------|-----------------------------|-------------------------------|
| CINAHL | The role of nurse AND asthma | 2018 | English | | 34 |
| CINAHL | importance of nurses AND asthma | 2018 | English | | 10 |
| CINAHL | Asthma AND in nursing practice | 2013-2018 | English | | 29 |
| CINAHL | The role of the nurse AND in asthma | 2013-2018 | English | | 8 |
| CINAHL | nurses role AND in asthma | 2017 | English | | 30 |
| CINAHL | support patient AND asthma | 2000-2018 | English | | 27 |
| CINAHL | education patient AND asthma | 2013-2018 | English | | 70 |
| CINAHL | patient experience and asthma | 2002-2018 | English | | 21 |
| CINAHL | knowledge and Asthma | 2015-2019 | English | | 53 |
| CINAHL | patient views about asthma | 2006 | English | | 1 |
| Google scholar | patient views about asthma | 2018 | English | | 1190 |
| Total= | | | | | |
| After de-dublication | | | | | |

COVER LETTER FOR AGREEMENT BY RESEARCH BASES

Dear Deputy Director for Nursing

I, Khalelova Akmaral Ergenovna, I have been working Higher Medical College in Almaty at the department of "Nursing", as a teacher.

Currently, I am a student of master's degree of Joint two Degree Master Programme in Advanced Nursing Practice from JAMK University of Applied Sciences in Finland & Kazakh Medical University of Continuing Education in Kazakhstan writing my dissertation tentatively titled "The role of the nurse in the self management of patients with bronchial asthma".

The purpose of this study is to explore the role of nurses in the self-management of patients with bronchial asthma from the patient's perspective. And thus to find out how nurses can facilitate and improve self-management of asthma patients and how nurses can strengthen the responsibility for asthma from the point of view of patients, and what care the nurse provides, and determine the patient's responsibility for their health. This could be a further basis for self-management, resulting in lower health costs due to the reduced need for some health services.

I would like to ask your permission to conduct a study in the territory of the PHC with patients who suffer from bronchial asthma. I ask you to provide the patients data (bronchial asthma) their email address, telephone and etc. Data will be collected through an individual semi structured interview after obtaining informed consent to participate in the study. The interview will take no more than an hour.

If you would like more information about this study, please contact my supervisor Dinara Ospanova at this email address xxx

Signatures

Representative of the Host Company _____

Place and Date (dd.mm.yyy) _____

Appendix 3. Informed consent

THE INFORMED CONSENT TO PARTICIPATION IN THE RESEARCH

Dear Patient

The 2nd year undergraduate student of the Kazakh-Finnish Nursing Master's Science and Education Program invites you to take part in a scientific study, the purpose of which is to study the role of nurses in the independent management of patients with asthma, in your opinion. The goal is how to manage asthma and provide care and determine the patient's responsibility for their health in your opinion.

I ask your consent to an interview with you. Participation in the study is entirely voluntary, and opting out does not affect the treatment you receive. In the interview, we want to get information about self-care of patients with asthma. The interview is presented in the form of an individual interview with each participant, during which a digital audio recording of the conversation is conducted without mentioning the names and other possible identifiers of the person. In this case, if there is a continuation of the conversation, the interview is terminated and can be resumed only with the consent of the Respondent. On average, the interview takes about an hour. During the conversation, participants will be asked to answer a number of open questions on the topic of the study.

Material collected from patient interviews will be fully coded so that all information will be impersonal and patients will not be identified. The research material is stored in a closed Cabinet, only the researcher has the key. The researcher undertakes to comply with the applicable guidelines for the preservation of research legislation and data protection. The results of the research will become a master's thesis, and the articles will be published in international scientific journals. The study materials will be updated accordingly after the completion of the study.

If you have any questions regarding the study, you can contact address xxx

Sincerely,

Principal Investigator: Akmaral Khalelova

Tel: e-mail:

Consent of patient information

I was asked to agree to review patient records in the city clinic, lifestyle counseling for patients with bronchial asthma at basic medical care. The purpose of this study is to study the role of nurses in the self-management of patients with asthma. I read the research information and understood the purpose of the research. I had the opportunity to ask additional research-related questions, and I received a satisfactory answer to them. I understand that my participation in research is voluntary, and refusal to participate

By signing this letter of consent, I voluntarily give my consent to view the medical records of patients associated with these diseases in the clinic for use for research purposes.

Name: _____

Date of birth: _____

Address: _____

Date and Location: _____

Signature _____

Clarification of signature _____ ---

I get interviewed:

Appendix 4. Research questionnaire and participant selection criteria

Background questionnaire

Demographic issues:

1. I am _____ years old.
2. ____ Male ____ Female
3. Hometown _____
4. Marital status _____
5. Work in, retired, unemployment _____
6. Education level _____
7. How many times have you been in the emergency room over the past two years?
_____ asthma? _____
8. Over the past two years, how many times have you had to go to the doctor or

9. On average, how often do you use an albuterol inhaler _____
Rarely Once a month Once a week Almost every day > 2 times a day
10. Do you use prophylactic medications, such as an Advair inhaler or Singulair
tablets,
even if you don't have an asthma attack?
NO Sometimes Every day Not sure

Interview questions:

How long the interviewer has had an asthma diagnosis?

Visit in emergency department due to asthma

How the interviewer takes care of him/herself regarding asthma? What she/he
thinks about taking responsibility of the taking care him/herself?

Tell me about last meet with a nurse? How did it go?

What do think, how nurses should help you with your asthma self-management?

How have you experienced that?

What do you think, how nurses should act to improve and facilitate asthma self-management?

What do you think nurses should do to strengthen your health responsibility? Is it worth doing something more?

What do you think, what practical help/self care for yourself get from nurses?

Are you worried about your health, how much do you think you are responsible for your health?

Criteria to select the patients to the interview:

1. Diagnosed with asthma
2. Adults (45-65 year) 18-65 years old (people who are still working)
3. Male
4. Female
5. They have experience meeting nurses regularly
6. They want to share their experiences about self-management with you