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PROACTIVE PATIENT MANAGEMENT

Family nurses' perceptions of proactive management of high-risk patients and identification of pertinent training needs

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Abstract. Primary care is the basic level of care, where patients start their treatment journey. Proactive management at primary care level improves health access and quality of care through proactive approach for specific patient sub-groups, improves integration of care at different levels of the health care system, and improves patient outcomes. The aim of the study was to describe family nurses' perceptions of high-risk patients' proactive management and identify further training needs; therefore, a descriptive and empirical two-stage study design was used. A convenience sample of 16 family nurses was recruited in the first stage. The study was conducted at five Estonian primary health centers. Data were collected by Modified Patient Assessment of Chronic Illness Care (MPACIC) online questionnaire between September and December 2020. Ethical approval was obtained. The nurses evaluated their proactive management of high-risk patients positively. Higher results were related to patient support, encouragement, involvement in everyday care, and individual goal setting questions. Lower results were related to referral to professionals, follow-up visits, and suggesting specific health related programs and events from which the patients could benefit. As a second stage of the study, a training program was developed based on the acquired results and training was conducted for 18 nurses at one primary health center, where care management has been used since 2017. The training program was found to be useful. Nurses need specific knowledge about the proactive management and care plan of high-risk patients, which can be ensured through systematic training. The subject of nurses' perceptions could benefit from further study by qualitative methods.

Keywords: high-risk patients, proactive management, care plan, primary care, nurses' perceptions, training needs.

INTRODUCTION

Chronic diseases and multiple chronic diseases or multimorbidity are the most prevalent public health challenges worldwide [1,2]. Non-communicable diseases (NCD) such as diabetes, cardiovascular and chronic respiratory diseases cause high mortality globally (74%) [2] and high expenditure on healthcare [3,4]. In Estonia in 2021, 92% of deaths resulted from NCDs, which is similar to the other Baltic countries, with the statistics for Latvia and Lithuania being 92% and 91%, respectively. Improving the quality of health care is a universal priority among health care systems. One response has been a global move towards a more people-centered primary care model [2]. This affects both the patient and the primary care sector, which is the first contact point and gatekeeper for patients with chronic diseases. Primary care plays an essential role in care coordination at the health care level [5].

In this study, high-risk patients are defined as patients with multiple chronic conditions or a certain number of co-morbidities caused by health behavior, or who take different medications at the same time and are overusing the health care system. Proactive management of high-risk patients includes key elements such as self-efficacy and active participation in their own care process and decision-making [4,6]. Patient activation or proactive management could be defined as the patient's own knowledge, skills, self-confidence, and behavior to manage and improve their own health [7]. The aim of care management is to support the patient and their social network in managing

their health conditions more effectively, which can be ensured by a series of activities. For instance, improving care coordination and transition across different levels of care providers; responding to the patient's needs to improve their health and reduce health care utilization; improving the patient's involvement by expanding their self-efficacy and developing individual care plans where the health goals are set by the patient themself.

There are several proactive and people-centered models developed for improving high-risk patients' care by coordinating it with a multidisciplinary team and incorporating related services across the health care system as well as outside of it [1,5,8–11]. However, family nurses experience several obstacles in responding to high-risk patients' needs, such as lack of time to provide the service, lack of human resources (nurses) and lack of information to share with patients [12].

It is crucial to monitor the dynamics in the patient's health condition to provide appropriate and safe care transition. No less important for effective care management is the constant and transparent communication between the interdisciplinary team members as well as their clear role descriptions. This facilitates the pre- and follow-up visit care process [11].

In Estonia, monitoring the patients with multiple chronic conditions is the family nurse's main work. Therefore, it is important to map the current situation and find out how nurses perceive care management of high-risk patients. Interdisciplinary teamwork is at the heart of primary health care, especially in regard to treating multiple chronic conditions of the same patient, since they often need the help of different specialists at the same time. Training intervention is essential in team training as it improves the team's clinical performance and effectiveness as well as nurses' decision-making skills [13,14]. It can be assumed that the obtained results help clarify the need for training and related intervention may then be developed. That would further improve the nurses' ability to manage care for people with co-morbidities and be a successful member of an interdisciplinary team. Strengthening primary care may reduce high-risk patients' visits to the hospital, specialists, and the emergency department, as well as avoid readmissions, thus optimizing costs and ensuring accessibility of medical care for those who need it, improving patient safety and health outcomes [11]. To improve the experiences of both patients and health care providers, it is essential to consider family nurses' perspectives. Therefore, this study aimed to describe family nurses' perceptions of proactive management of high-risk patients and to identify related training needs. The following research tasks were set: 1) assess family nurses' perceptions of delivering care to high-risk patients; 2) identify the training needs of family nurses; 3) develop a pilot training program to improve patients' and nurses' experiences.

MATERIALS AND METHODS

The study was comprised of two stages, quantitative and descriptive. First stage data were collected by using the validated MPACIC (Modified Patient Assessment of Chronic Illness Care) questionnaire of Carryer et al. [9]. The respondents were nurses who worked in five Estonian primary health centers, where care management approach was used since 2017. It was planned to include a minimum of 50 nurses in the research. Data collection took place from September to December 2020 and was challenging, as it coincided with another wave of the Covid-19 pandemic in Estonia. It was a convenience sample, made up of nurses who worked in the involved five health centers at the time of data collection.

Previous reliability tests have shown an internal consistency of the questionnaire of 0.93 [9]. There were 26 closed and multiple-choice items regarding the assessment of patient activation (20) and socio-demographic data of family nurses (6). Nurses gave their ratings on a 5-point Likert scale. The questionnaire was translated from English into Estonian and Russian and back to English. The correspondence of the translation to the original was confirmed by a certified translation agency. Permission to use and translate the instrument was obtained from the author of the questionnaire. This research was approved by the Research Ethics Committee of the National Institute for Health Development (decision No. 440 from September 23, 2020).

In each primary health center we established a contact person, whom the researcher could reach during the data collection period, if necessary. An email was sent to family nurses with information about the research and a link to the online questionnaire, with a request to fill it out. This allowed the nurses to complete the questionnaire at a time and place convenient for them. The questionnaire could only be submitted if all questions had been answered. Between September and December 2020, a total of five reminder letters were sent to the nurses. The response rate was 32% (16 nurses). For data analysis descriptive statistics were used.

Based on the results obtained at the first stage, a training program was developed and carried out on October 20, 2021 at one primary health center involved in the study. Initially, it was planned to conduct training in all five medical centers, but it was decided firstly to pilot the training program in one of the largest primary health centers, which has a total of 8 lists of patients (including approximately 569 high-risk patients) and 17 family nurses. Based on the feedback the nurses were asked to give after the training, the pilot program was considered to be necessary and successful. Plans were made to expand the training program to other primary health centers across Estonia.

RESULTS

All the 16 respondents were female, aged 27 to 58 years (M = 38). 11 had an applied higher education, 3 an applied higher education in nursing, 1 had a master's degree in nursing management and 1 nurse was with secondary/vocational education. Respondents' work experience in healthcare varied from 2 to 31 years (M = 11).

50% (8) of the nurses estimated that they always ask the patient's thoughts about his/her care plan, while 31.25% (5) of the nurses do not ask the patient's opinion. Approximately 69% (11) of the nurses give the patient the option to think along and talk about the planned treatment, while 25% (4) do not offer this option. 56.25% (9) of the nurses always ask the patient to talk about medication-related problems and their effects, and 31.25% (5) ask to do this sometimes. 56.25% (9) of the nurses estimate that they always document things that the patient should do for their health, and 25% (4) of the respondents do this sometimes.

The majority of nurses 75% (12) always feel satisfied when coordinating patients' care. The same number of respondents noted that they always explain to the patient how the activities done for themself affect their condition. Furthermore, 75% (12) of the nurses always ask to talk about the patient's personal goals for self-care, while 68.75% (11) help the patient set specific goals for self-care.

43.7% (7) of the nurses never give a copy of the care plan to the patient. Half of the respondents 50% (8) do not encourage the patient to participate in an event that would help them cope with their disease, although 18.75% (3) do it sometimes. Over 80% (13) of the nurses always examine the patient's health habits, and the majority of nurses 75% (12) consider the patient's values and traditions when recommending treatment.

75% (12) of the respondents support patients with developing a care plan that could be followed in everyday life. Only 31.25% (5) of the nurses help the patient in preparing them to cope with difficult times. 62.5% (10) of the nurses are interested in how a chronic disease affects the patient's life. However, 62.5% (10) also reported that they only sometimes contact the patient after the visit and ask how they are doing.

The training program "Essence, purpose and principles of care plan for the activation of high-risk patients in primary health care" was prepared taking into account the results of the questionnaire survey conducted in the first stage of the research. The training program was designed in two parts, theoretical and practical. The former describes the principles of high-risk patients' care coordination and activation through the care plan. The practical part consisted of developing a care plan based on a case study and was done as group work. The duration of the training program was two academic hours, of which 30 minutes was the theoretical and 55 minutes the practical part.

A total of 18 family nurses participated in the training. The case study analyzed as part of group work supported the achievement of the goals of the training program. During the group work the participants actively described the entire process of managing high-risk patients and creating a care plan, analyzed and presented various examples that included patient-centered activities.

The content and organizational aspects of the pilot training program were assessed by using a feedback questionnaire, consisting of 8 items. Participants were satisfied with the training, evaluating it as good (M = 4). The feedback revealed that the participants gained new knowledge and consolidated their existing knowledge. It was pointed out that the '7 steps of creating a care plan' was new and useful information that facilitated the creation of a care plan. Overall the training was considered clear and applicable. Based on the participants' feedback, the training program could include more practical tasks and examples. The most significant discussions were about noting the administration of the patient's medications in the care plan and which guiding questions should be used to reach the most important points when setting the patient's goals.

DISCUSSION

Proactive management is based on a care plan that focuses more on the functional side than on the disease, and aims to restore, preserve or maximize functional independence or compensate for the patients' autonomy. The literature confirms that family nurses play an important role in treating high-risk patients, in monitoring and implementing the care plan [15–18]. The analysis of the survey results revealed that family nurses have inconsistent understanding of care management of the high-risk patients and the importance of developing an individual care plan. The areas needing improvement were setting patients' goals and gathering feedback during follow-up visits. Adapting to changes in the patient's and family's lifestyle can be challenging. Both patients and their family members need knowledge and motivation to adapt to a new health behavior. Furthermore, nurses play a crucial role in educating and supporting patients in terms of solving psycho- social problems. Especially in the first consultation, nurses have a significant influence on how seriously the patient views their illness. Therefore, it is important to know how to guide the high-risk patient to find solutions supporting their own health behavior, which facilitates coping with chronic diseases. Consequently, there is a need for systematic training to improve and support nurses' profes- sional competence in creating an

innovative care plan, as well as empowering the patient to take more responsibility for their own health [13,14].

Based on the mapped needs, a training program was developed and initially piloted in one health center. The goal of the program was to support professional development, supplement and deepen family nurses' knowledge of activating high-risk patients and to improve their skills of monitoring chronic patients. The case analysis method was used, as it has been found to be most effective for planning and conducting training interventions [19].

The competence of nurses could be improved by the implementation of a training intervention which includes strategic professional training. This, in turn, enhances professional knowledge, increases confidence and practical skills [20]. Furthermore, it improves the nurses' ability to consider the patients' cultural peculiarities and identify possible barriers early, resulting in better health outcomes in different population groups [21]. Since nurses mostly deal with chronically ill patients, their continuous education is essential. All the more so because patients are becoming more and more educated about their own health issues, which, on the one hand, is a positive aspect of achieving better health results in the long term; on the other hand, it sets higher standards for nurses, which should be met in their daily work. Nurses' communication with the patient is influenced by knowledge and attitudes, emotional intelligence and empathy, all of which can either hinder or facilitate effective nursing and patient interactions.

Within the framework of the present study, a case-based method was used in the training, which was evaluated as relevant and useful for acquiring the knowledge necessary to develop a care plan. Literature supports the use of case- and problem-based methods by promoting nurses' prior knowledge, collaborative learning and active involvement [22]. Case- and problem-based learning directs nurses to find the best solution for the high-risk patient's needs [22,23]. Based on the feedback analysis, it could be concluded that during the training, the participants' knowledge of the activation of high-risk patients and the importance of creating a care plan was improved. Family nurses who have completed the training program rely on common understandings in their activities when taking care of high-risk patients and are able to apply the acquired knowledge in their daily clinical work, thus ensuring a patient-centered approach.

CONCLUSIONS

High-risk patients' care management has the potential to improve treatment outcomes for chronically ill patients and optimize the availability of medical care by "the right patient in the right place at the right time" principle. The results of the study showed that the majority of nurses rate activities such as patient support, encouragement, involvement and goal setting in the activation of chronic patients highly. Since it is an innovative approach, it should be considered whether to expand the approach to other centers and train nurses. It would also be helpful to create a corresponding guideline that would support the daily practice of nurses, and high-risk patients coping with their conditions.

Evaluation of nurses' perceptions and experiences should be systematic, to ensure the quality of care, which, in turn, impacts patient safety and health outcomes. Clinical competence and professional development of nurses can be supported by systematic continuing education. Training programs aimed at nurses, both in continuing education and in nursing education programs, should meet public health priorities. Therefore, further research is needed, especially qualitative studies, with which in-depth information can be obtained about the subject.

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Pereõdede hinnang riskipatsientide ennetavale käsitlusele ja täiendkoolituse vajaduste väljaselgitamine

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Esmatasandi tervishoid on patsiendi raviteekonnal esimene kokkupuude tervishoiusüsteemiga. Erisihtrühma patsientide ravijuhtimine või ennetav e proaktiivne käsitlus esmatasandi tervishoius parendab ligipääsetavust terviseteenustele ja ravikvaliteeti, erinevate tasandite teenuste integreeritust ja patsientide tervisetulemeid pikemas perspektiivis. Uuringu eesmärk on kirjeldada, kuidas tajuvad pereõed riskipõhise ravijuhtimise proaktiivset käsitlust ja selgitada välja pereõdede koolitusvajadused.

Uuringu esimesse etappi kaasati 16 pereõde viiest Eesti perearstikeskusest. Andmeid koguti veebipõhise *Modified Patient Assessment of Chronic Illness Care* (MPACIC) küsitluse abil ajavahemikul september kuni detsember 2020.

Uuringu korraldamiseks saadi eetikakomitee kooskõlastus. Teises etapis töötati välja koolitusprogramm, mida katsetati ühes perearstikeskuses, kus riskipõhise ravijuhtimise käsitlust kasutatakse alates 2017. aastast. Koolitusel osales kokku 18 pereõde. Osalejad väärtustasid riskipõhist ravijuhtimist kõrgelt. Kõrgemalt hinnati patsientide toetamise, julgustamise, igapäevaelu kaasamise ja individuaalsete ravieesmärkide püstitamisega seotud tegevusi. Madalamalt hinnati riskipatsiendi suunamist teise spetsialisti juurde, järelvisiite ja patsiendile soovituste jagamist seoses kasulike tervisealaste programmide ja üritustega. Pereõdede hinnangul oli loodud koolitusprogramm kasulik.

Pereõdedel on oluline roll ja suur vastutus krooniliste haigustega patsientide ja nende pereliikmete tervise ja heaolu toetamisel. Nad vajavad spetsiifilisi teadmisi riskipatsientide proaktiivsest käsitlusest ja terviseplaanist, mida on võimalik tagada süsteemse väljaõppe abil. Koolituse mõju hindamisel tuleks kaasata eritasandite hindajaid. Tulevikus võiks teemat edasi uurida kvalitatiivsete meetoditega.