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Maintaining Functional Ability Among Elderly People in Care

Vanhusten toimintakyvyn ylläpitäminen

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INTRODUCTION

Finland is considered to have one of the oldest populations in Europe with a population that is rapidly aging due to increased life expectancy and a decline in fertility and birth rate. This poses a problem as the working age population will be low compared to the general population. Ultimately, human resource availability in elderly care will not be enough. (Finnish Institute for Health & Welfare 2020.) This calls for interventions to promote healthy aging which will translate to the elderly staying healthy physically, mentally and functionally.

Increasing age is often related to the risk of declining functional ability. Functional ability is defined as the ability to do the things that one needs and wants to do in their given environment. The goal of elderly care includes supporting and maintaining the elderly's ability to live their lives as human beings in accordance with their preference. To achieve this goal, it is important to understand and implement appropriate interventions. (Lehto, Jolanki, Valvanne, Seinelä & Jylhä 2017: 15, 21.) The factors that contribute to functional decline, which is defined as the decline in physical and cognitive ability among the elderly, include progressive diseases, the fear of falling, poor environment characterized by for example inadequate lighting and congested hallways, restrictive care services for example too much bedrest and limited physical activities (Boltz 2012: 272; Lehto et al. 2017: 15).

Functional decline is directly linked to increased mortality, increased need for elderly homes, prolonged hospital stays due to complications, costly rehabilitation and home care services, all of which translate to increased expenditure and need for resources. (Inouye, Bogardus, Baker, Summers & Cooney 2000: 1697.) This therefore points out to the fact that measures need to be put in place to support functional ability of the elderly. With increasing aging population and decreasing resources to support the elderly care services, it is important to have this topic constantly updated to be in line with the changing environment. The purpose of this article is to identify and describe interventions that maintain the functional ability of the elderly in care and what the elderly's care team need to do to ensure the successful implementation of these interventions is achieved.

METHODS

A search of literature was conducted in CINAHL and PubMed databases. The search terms used were: Functional ability in elderly, nursing interventions, hospitalized elderly, elderly in long-term care institutions. Five research articles were selected and analyzed in this article. The studies include the descriptive observational study at a medical center in U.S.A done by Boltz, Resnick, Capezuti, Shuluk & Secic (2012), the explorative cross-sectional study of home dwelling elderly residents in Finland done by Eloranta, Arve, Isoaho, Lehtonen & Viitanen (2015), the descriptive case data analysis of the elderly and their nurses in nursing homes in South Korea done by Hyunju, Jin, So, Choi & Chang (2017), the qualitative personal interviews of the elderly and their nurses in different care facilities in Finland done by Lehto, Jolanki, Valvanne, Seinelä & Jylhä (2017) and the experimental longitudinal study of elderly in an acute care unit at a hospital in U.S.A by Lyons (2014).

Based on these articles reviewed, three main interventions that can be implemented by the elderly's care team to support the functional ability of the elderly in care were identified. The care team comprises of the nurses who are in direct contact care of the elderly, the management of care institutions and the policy makers in social and health care who are in charge of shaping policies and allocating resources in the care of the elderly. The three main interventions identified include adapting the physical environment to the needs of the elderly, minimizing fall risks using function promoting activities and optimizing nutritional status as a way of improving functional ability. In addition to the interventions, three essential things that need to be done to ensure their successful implementation were identified. This includes implementing function focused care based on the individual elderly characteristics, providing nursing staff with education and support, and developing standard guide maps for the care team to follow in executing their tasks.

INTERVENTIONS THAT PROMOTE FUNCTIONAL ABILITY OF THE ELDERLY

According to the World Health Organization (WHO), healthy aging involves the creation of opportunities and environments that enable the elderly to function. It does not necessarily mean that the elderly is free from disease or disorder. (WHO 2020.) In Finland, promotion of healthy aging by implementing function focused care is not only a quality recommendation but also a legal requirement (Elderly Services Act 980/2012 section 5; Ministry of Social

Affairs and Health 2020). Based on the five articles reviewed, three main interventions that can be implemented to support the functional ability of the elderly in care are described below.

The physical environment of the elderly

In the study by Lehto et al. (2017) being able to use different aids to manage their lives is a key contributor to the elderly's functional ability. Changes in functional abilities of the elderly, due to for example diseases or impairments, may cause inability to perform certain tasks that the elderly were previously capable of independently carrying out. However, availability of devices like wheelchairs, magnifying glasses, hearing aids or winches to rise from the beds are vital to the elderly and these devices enable them to perform certain tasks independently even if such tasks are done with difficulties. The elderly are aware of their impairments and this awareness empowers them to point out to assistive devices with which they function independently. (Lehto et al. 2017: 18-19.) The study done by Kim et al. (2017) further supports this view. The study demonstrates that providing the elderly with required supportive devices is essential to facilitate the elderly's ability to lead a functional life. (Hyunju, Jin, So, Choi & Chang 2017: 78.)

Eloranta et al. (2015) find a direct relationship between being able to go outdoors daily and Positive Life Orientation (PLO). PLO is related to favorable health effects including staying healthy physically, mentally and functionally. Furthermore, PLO enables the elderly to handle difficulties and unfavorable changes in life such that they do not feel discouraged but find inspiration for personal growth and development, hence promoting successful aging. Eloranta et al. (2015) demonstrate that if an elderly person has the opportunity for daily outdoor activity, their outlook towards life is more positive as compared to if they have no ability to visit the outdoors. This can pose a challenge when the physical environment of the elderly has not been designed in such a way that mobility is supported. Environmental planning, for example wheelchair access, should be done to encourage mobility and accessibility by the elderly in all seasons including winter. (Eloranta, Arve, Isoaho, Lehtonen & Viitanen 2015: 540-545.)

Function- promoting activities for the elderly

In his study, Lyons (2014) develops a comprehensive model of care that promotes physical functioning among the hospitalized elderly. Function-promoting models assist in limiting the effects of immobility by encouraging the elderly to be mobile and active. Among the interventions that can be instituted in such models is ambulation and transferring. In ambulating various interventions can be put in place. This includes activating the elderly at least three times a day, offering supportive footwear, offering assistive walking devices, encouraging active range of motion, creating space or pathways for walking within hospitals and elderly's rooms and implementing physiotherapist consultation when needed. In transferring, various interventions are implemented including encouraging the elderly to be out of bed, keeping the side rail of the beds close to the elderly so that they can get out of bed on their own and using assistive devices in transfers. Simple measures, for example encouraging the elderly to have meals at the table instead of having meals in bed, are encouraged.

The results of implementing such comprehensive models of care that support physical functioning of the elderly in the hospital setting include significant decline in average length of stay in hospital, decrease in re-admission rate, decline in falls rate and decline in costs related to length of hospital stay. (Lyons 2014: 381-384.). The study done by Kim et al. (2017: 77) further finds firm evidence that physical training and activities have positive effects on elderly's functionality with the results of such activities including improved mobility, improved performance in activities of daily living and improved quality of life.

Optimizing nutritional status of the elderly

In their research, Kim et al. (2017) find out that imbalanced nutrition among the elderly is a frequent problem encountered by most nurses. This can be because of both malnutrition and nutritional excesses. Nutritional imbalance is linked to physical immobility, activity intolerance, cognitive decline and other functional decline. The reasons for imbalanced nutrition include lack of appetite, emotional change (e.g. depression), physical impairments, dysphagia and cognitive impairment (e.g. forgetfulness). In such instances, the nursing interventions instituted include providing assistance while eating, providing emotional support during mealtime for example by encouraging the elderly to eat, providing nutritional

supplements, food fortification and also reminding the elderly to eat in cases where they forget. Nutritional intervention is instituted based on a step-by-step assessment of the elderly which first determines the cause of nutritional problem. This is followed by implementing the nursing intervention based on the identified problem and the need for care. (Kim et al. 2017: 75-79.)

The study by Eloranta et al. (2015) further supports the effects of nutrition to PLO. The study finds that at age 85 years the single most significant factor of PLO was good appetite. Having pleasant and tasty meal is considered as a daily source of pleasure for the elderly and is linked to PLO which, as previously mentioned, results to healthy aging. (Eloranta et al. 2015: 545.)

IMPLEMENTATION OF FUNCTION PROMOTING INTERVENTIONS IN ELDERLY CARE

Healthy aging begins in childhood and the work of nurses in promoting healthy aging is important. Apart from health promotion, the nurse's tasks also include delivering care, promoting safe environments, shaping health policy and patient health systems management. If nurses' job is done well, it can delay the onset or minimize severity of diseases and reduce long term support requirements of the elderly. (Australian College of Nursing 2019.) To ensure successful implementation of the above interventions three essential things, which are based on the articles reviewed, are discussed below.

Individualized care plan for the elderly

Kim et al. (2017) find that there is a need to provide care and services to the elderly based on their individual needs and preferences. The reason for this is that individuals have varying health backgrounds and therefore their needs may differ depending on this background. The elderly's need for care can be assessed based on their health records, change of mood, their verbal response, body language and appearance. From this assessment different problems that contribute to the elderly's decline in functional abilities can be identified. Individualized nursing care plans can then be put in place based on the identified need for care. (Kim et al. 2017: 75-79.)

Lehto et al. (2017) also point out the importance of recognizing the elderly's individual needs and views of functional ability. Their study demonstrates that decision making should not be

entirely left to caregivers to dictate what should be done for the elderly and what should be left for the elderly to do on their own. This is mainly because differing views exist between care givers and the elderly in defining functional ability. While to the care giver's functional ability defines the residents as either independent or dependent, to the elderly it is not as simple and distinct as this. Rather, it is about them being able to cope with their functional problems with no distinct line of dependence or independence. Additionally, they have different medical backgrounds hence different functional problems or needs and this further stress the importance of individualizing nursing care. (Lehto et al. 2017: 17-20.)

Certain elderly characteristics have also been associated with receiving function focused care (Boltz et al. 2012: 275, Kim et al. 2017: 75-77). A direct association has been found between younger age and receiving function focused care. In addition, the elderly who has a high physical function and better ability to perform activities of daily living on admission to the hospital is directly associated with receiving function focused care. Furthermore, elderly patients who are discharged to home are also more likely to receive function focused care as compared to those who are discharged to an institutional setting. (Boltz et al. 2012: 274-276.)

Providing nursing staff with support and education

Conducting a good assessment of all elderly patients and offering individualized function focused intervention based on this assessment ensures comprehensive patient centered care. The role of nurses in performing correct assessment and setting up individualized health care plans is vital. Providing the nursing staff with the correct training on how to perform such assessments and integrate the correct functional care plan to support functional ability is important. (Lehto et al. 2017: 17-18.) Continuous education of the care team is also required as it will help to develop their skills and clinical judgement ability when making nursing diagnoses, putting up interventions and evaluating these interventions (Kim et al. 2017: 78-79). In addition to this, it is important to deploy human resource with well-defined roles and areas of responsibility that will make them accountable for improving functional ability of the elderly they oversee (Boltz et al. 2012: 277).

Nurses should be informed that assessment of the elderly's need for care should be based on a range of factors and not just their verbal response and appearance. Some elderly people aim to do a lot of tasks on their own not because of their ability but out of the feeling

that the nurses have so much work to do that they cannot assist them or in some cases give minimal assistance. They view themselves as a burden to the nurses and will therefore ask for as little assistance as possible. This may be detrimental to the safety and health of the elderly as the role of the caregiver and the care receiver is reversed in that it is now up to the elderly to find ways to minimize the burden on the nurses. (Lehto et al. 2017: 18-19.) As much as the elderly may want to be able to function independently with minimum assistance, they may not have the ability to do everything on their own due to the changes and losses of functionality that may be taking place in their bodies. (Eloranta et al. 2015: 542-544.) Therefore, in addition to their verbal response and appearance, the elderly's need for care can be assessed based on their health records, change of mood and body language (Kim et al. 2017: 75-79).

Developing standard guide maps

Functional care should not treat the elderly as passive care receivers hence making them feel like they are a burden to society, it should assist them to stay active (Lehto et al. 2017: 18-20). One way the healthcare team can achieve such functional care is by giving assistance to the elderly where necessary while encouraging them to do as much as they can independently. To achieve this, they can design standard guide maps to help them estimate the level of support required by the elderly. This is clearly demonstrated in the study done by Lyons (2014) who develops a standard guide map containing criteria for assessing the level of help the elderly need to support their functionality.

Standard guide maps are not only useful for estimating the level of support required by the elderly but can also be useful in determining the size of care team needed to sufficiently assist the elderly. Under the guide developed by Lyons (2014), six levels of assistance that an elderly person may need are presented. These levels are maximum, moderate, minimum, contact guard, supervision, and independence. Under maximum assistance the caregiver does 75% of the work while the elderly does 25%. Under moderate assistance the caregiver does 50% of the work and the elderly does 50%. Under minimum assistance the caregiver does 25% of the work and the elderly does 75%. Under contact guard the caregivers' hands should be always on the elderly in case there is loss of balance. In this level the elderly is assisted to do their specific tasks only in cases of need. Under supervision level the caregivers' presence is needed but hand is not on the elderly. In this level the elderly does

100% of their tasks but helper's supervision is required. Under independent level the elderly does 100% of the task and does not need caregiver's presence. Regardless of these levels, the helpers should always be ready for changes in the elderly's ability and not presume that earlier ability experience will always be constant. Further, any changes in ability calls for re-assessment and must be communicated. (Lyons 2014: 380-384.)

Despite the existence of such guide maps in care facilities, it is important to note that the guide maps vary due to differences and similarities in the nursing processes. This variation exists because care facilities differ in many ways, for example in size, availability of human resources and availability of assistive devices. This differing factor could also be a pointer that some valuable nursing functions that support the elderly may not be implemented in some care facilities due to their huge sizes, limitations in availability of human resources and inadequate facilities to support functionality of the elderly. (Kim et al. 2017: 75). Regardless of this factor, having a constructed guide map is an effective way of having standardized quality care especially in an era where the number of novice nurses with limited professional experience has increased. (Kim et al. 2017: 79).

DISCUSSION

The results presented above point out various nursing interventions that play a significant role in maintaining and improving functional ability among the elderly. Keeping the elderly active through various activities that ensure they are engaged either mentally or physically is important in supporting their functionality. The environment in which the elderly belong also plays a key role in their ability to function. The physical environment should have proper accessibility and the right support tools which take into account the different conditions of the elderly. For example, in nursing homes with multiple floors, it is important to have functional elevators to ease mobility of the elderly who might be in wheelchairs.

When considering nursing interventions to implement, this should be done starting with the interventions that best support independence of the individual and their natural functionality. If such intervention is not feasible, other options should be considered with the last resort being the least natural solution. For example, in supporting nutrition all options should be considered starting from offering company during mealtime, offering eating devices, assisting with feeding and the last intervention should be parenteral nutrition. In addition to

activating the elderly, providing the correct nutritional balance not only keeps them physically active and healthy but also improves their cognitive functions.

As mentioned previously, having well-constructed guide maps with proper assessment criteria is key to ensuring all round and all-inclusive care is offered to the elderly in care. An important aspect arises when considering assessment of individual elderly characteristics and receiving function focused care. In as much as nursing interventions are put in place, the nursing team tends to implement the interventions based on certain elderly characteristics. This may point out that if assessment of the elderly is not properly done some of them might be left out of receiving function focused care that they are in dire need of. This leads us to question how patient assessment is conducted to determine who to give such function focused care, how much care to give and what kind of care should be given. In addition, the healthcare team's understanding of functional ability and how to implement nursing interventions is questionable.

Educating and supporting the caregivers, for example on how to perform assessments and how to use guide maps is one of the ways of ensuring quality care is provided and errors are avoided. It is also vital for the healthcare team to work together with the elderly and involve them by giving them essential information and allowing them to be part of decision making in their own care plan. Nurses should also be trained on how to be approachable so that the elderly know they have access to help. Healthy aging is enhanced if the elderly know and feel that they have someone they can reach out to easily.

With the increase in aging population, the interventions mentioned in this review are important in maintaining functionality of the elderly. Improved functionality of the elderly not only reduces the burden and cost of healthcare but also results in an elderly population that is resourceful to the society, in other words, active elderly. This review article not only points out interventions in the care of the elderly but also what the care team, which includes nurses, the management of care institutions and the policy makers in social and health care, need to do to ensure successful implementation of these interventions. With decreasing resource availability, particularly human resource, to support the elderly service it is important that nursing interventions are correctly put in place and updated to consider the changing circumstances surrounding elderly care without compromising the safety of both the elderly and the healthcare team.

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