ACTA SCIENTIFIC NEUROLOGY (ISSN: 2582-1121)

Volume 6 Issue 4 April 2023

Research Article

Accidents in the Elderly with Emphasis on the Rural Elderly

Aida Mohamadi¹ and Vahab Karamivand^{2*}

¹Master of Nursing Students, Studens Research Committe, Kermanshah University Medical of Sciences, Kermanshah, Iran

²Assistant Professor, School of Nursing and Midwifery, Kermanshah University of Medical Sciences, Kermanshah, Iran

*Corresponding Author: Vahab Karamivand, Master of Nursing Students, Studens Research Committe, Kermanshah University Medical of Sciences, Kermanshah, Iran. Received: September 29, 2022

Published: March 20, 2023

© All rights are reserved by Vahab Karamivand and Aida Mohamadi.

Abstract

Background: The elderly population is increasing in developing countries due to improved health status and life expectancy. Due to the increase in the phenomenon of aging and the statistics of the elderly population, there are still risks in the elderly.

Objective: The purpose of this research is to identify common accidents in the elderly in order to plan and reduce them.

Results: The findings of the reviewed studies show that contact with hot liquids, contact with sharp objects, falls, drug poisoning, suffocation, burns, falls and collisions with objects (impact) are common causes of accidents in the elderly.

Conclusion: It is necessary to take the necessary measures in the society to minimize the occurrence of accidents in the elderly, and also to emphasize the special conditions of the injured elderly in the training of relief and treatment groups and all the necessary considerations in dealing with this group. The victims of the accident should be given special attention.

Keywords: Accidents; Elderly; Rural

Introduction

With the development of science, the health-medical and economic level of societies has also improved, which increases life expectancy, which causes the growth of the elderly population. Currently, due to the increase in life expectancy in the world, aging has become a global phenomenon, which is considered an important change in the 21st century. According to the National Council of the Elderly, people over 60 years of age are considered elderly, and due to the improvement of the health and economic level of societies, their population increases every year. According to global estimates, the number of elderly people in the world will reach

two billion in 2050. Every year, about 30% of people over 65 fall, and 50% of them need medical services. The elderly is one of the vulnerable groups of any society. Physiological changes such as specific changes in the neuromuscular and skeletal system that occur during the aging process can affect a person's complex movements and cause an increase in accidents such as burns and accidents. ... in the elderly [1].

Therefore, considering the injuries caused by accidents and the ever-increasing elderly population of the country, the need for proper planning to prevent and reduce the occurrence of accidents among the elderlies is felt. For this purpose, this article aims to identify the causes of accidents in the elderly as a basic solution for appropriate and effective intervention to improve the quality and quantity of life of the elderly.

Definition of incident

An accident is a damage to the body that is caused by a change in the environmental energy greater than the resistance of the body.

Accidents and accidents are the third most common cause of death in all ages and the fifth cause of death in people over 65. Various studies have shown that the prevalence of accidents and incidents in the elderly is higher than in the young [2]. Although the increase in the elderly population is due to the development health services, improving living standards and increasing life expectancy have been achieved [3,4] but in old age, body systems deteriorate and in practice, people's ability decreases. Therefore, injuries caused by accidents increase in this group [5].

In general, age and sex are one of the most important determinants of mortality in injured patients, and the changes associated with aging, such as: reduction of physiological reserve, inadequate metabolic and glandular responses, which are a natural process of aging. are considered, the presence of diseases associated with the use of drugs change the results obtained from injuries [6]. The elderly, due to physical and movement changes caused by old age, such as vision loss, hearing loss, poor balance, slowness of movement, Debilitating diseases such as (arthritis of the knee joint, muscle weakness...) and the use of drugs, dizziness, confusion, lack of concentration and inappropriate environmental conditions are more exposed to domestic and street accidents.

Rural environments are aging due to the migration of young people and middle-aged people [7]. Today, the issue of accidents in the elderly is very important, because the population of elderly people in societies is increasing; firstly, the mobility and active lifestyles of the elderly provide the background for their participation in physical activities that seem to be more specific to younger people and expose them to the risk of serious injuries, and finally, the consequences after the injury. In the elderly, it is clearly more than in younger patients, and compared to younger patients, it disproportionately increases the hospitalization rate, prolongs the hospitalization time, increases the costs of medical services, increases mortality and long-term consequences [8,9]. Although the increase

of the elderly population has been achieved due to improvements in health services, improvement of living standards and increase in life expectancy, but in old age, body systems deteriorate and in practice, people's ability decreases. Therefore, injuries caused by accidents increase in this group [10].

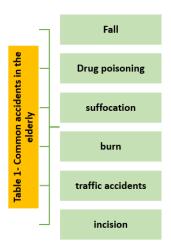


Table 1: Accidents that have the highest rate in the elderly, especially the elderly in rural areas.

Fall

The risk of falling increases with age. So that seniors 75 years and older falls 2.5 times more than seniors less than 75 years old. The occurrence of falls in the elderly can be due to vision, movement, cognitive disorders, physical weakness, chronic diseases and other factors. Since the increase in age and the corresponding decrease in physical activity are associated with a decrease in the speed of transmission of nerve messages, it is possible that the decrease in the activation of agonists with the decrease in strength and the amount of torque production observed in the elderly contributes to the fall of the elderly. Studies show that several factors such as inactivity, cognitive impairment, use of certain drugs, depression, urinary incontinence, dizziness, fear of falling, visual impairment, history of previous falls, joint and musculoskeletal problems, and environmental ergonomics are causative or aggravating factors. They cause falls in the elderly [11]. Such accidents may happen in the bathroom, stairs, slippery and slippery surfaces, especially stone surfaces covered with parquet and ceramics, and even in bed (falling from the bed). In order to prevent these accidents of the elderly during bathing, it is necessary for them to have a handle next to the shower and to place a non-slip footrest on

the floor of the bathroom and under the shower. Stairways and all passageways for the elderly at home should have enough light and lighting, and these areas should be free of any additional equipment and obstacles, and their surfaces should not be slippery. The first and last step should be marked. Carpets and rugs at home should be fixed to the ground and not slip. For maximum safety, the elderly should carry canes while walking at home and outside. The phone should be near the place where the elderly person sleeps and sits so that they do not fall down when answering it when they get up in a hurry. In winter and in snowy and rainy weather, the elderly should wear ivory shoes and carry canes and walk very carefully (Figure 1).

Figure 1

Drug poisoning

Drug poisoning among the elderly usually has a high prevalence because this age group has many chronic diseases that cause them to take more drugs than young people. While these medications are intended to treat health problems and manage the symptoms of diseases, taking too many medications also increases the risk of side effects, such as an unintended overdose. Factors that usually cause drug poisoning in the elderly include: taking repeated doses of drugs due to forgetfulness, unintentionally taking the wrong drug due to poor eyesight, drug use by other family members, and drug interactions due to having several diseases at the same time. Taking several drugs at the same time. Increasing age in the elderly causes changes in drug metabolism in these people and the elderly's ability to metabolize and eliminate drugs decreases, which include a decrease in body fluids, a decrease in tissue volume. Muscular, de-

creased liver and kidney function [12]. The number of drugs used is a common phenomenon that occurs in old age and is specifically considered a risk factor for the occurrence of unwanted drug side effects. It is better for the drugs to have clearly identifying labels with different colors. They should also be separated and only available to them in the necessary amount, and as much as possible, the drug should be taken with a caregiver (Figure 2).

Figure 2

Suffocation

In some elderly people, due to restlessness and impulsive behavior, the accident of food and edibles may happen in the respiratory tract, because sometimes they eat carelessly and hastily, and this accident can lead to suffocation [13]. It is better to prevent this problem; the elderly should not be alone while eating food and any other type of food, the necessary training should be given to them through videos and the type of food they eat should be different (Figure 3).

Figure 3

Burn

Every year, burns in developed countries kill a large number of people and leave many disabilities. The elderly is an expanding subgroup in society and may vary in health. Compared to other age groups, burns in the elderly are weaker in terms of mortality and final prognosis. Aging causes many diseases, including burns. In elderly people, flame and boiling water alone are the main cause of burns, which happen especially in the kitchen and bathroom. Elderly burn patients suffer more morbidity and mortality than younger people with similar burns [14]. It is better not to have stoves or containers of hot food and liquids near the place of sleeping and sitting and in their traffic routes in the house. Adjust the temperature of the water before taking a bath so that it is not too hot and scalding. When eating hot foods and liquids, this should be done carefully and not hastily. Elderly people should be very careful and observe the safety principles while using the gas stove and turning it on and off, while cooking and when turning the heater and fireplace on and off (Figure 4).

Figure 4

Traffic accidents

Due to their physical and movement limitations, the elderly cannot cross the street quickly, and due to their poor eyesight and hearing, they are unable to recognize the position of vehicles quickly and appropriately. In such cases, they need help, and on the other hand, drivers should take care of the condition of the elderly and be more careful [15]. Driving by elderly people should be done with adequate safety and before driving, it should be ensured that the elderly person has physical and mental health, does not suffer from movement and vision weakness and has healthy orientation. Only with such conditions, the elderly can drive, and it is better that the distance and duration of their driving is not long.

Incision

Due to hand tremors and weak finger movements, the elderly is unable to use knives and other sharp tools such as scissors, needles, etc. well. As much as possible, they should not be assigned to work with these devices, and if they are forced to do this work, they should be careful and careful [16]. There should not be sharp objects such as sharp decorative objects or tables with sharp edges, etc. in the paths of traveling, sleeping and sitting of the elderly.

Conclusion

The reviewed studies show that several factors such as contact with hot liquids, contact with sharp objects, falls, drug poisoning, suffocation, burns, falls and collisions with objects (impact) are common causes of accidents in the elderly. Due to the high prevalence of accidents, it is necessary to provide appropriate planning for timely prevention in order to increase the quality of life, reduce the burden of health care and reduce their occurrence in the elderly.

Bibliography

- 1. Potter PA and Perry AG. "Fundamentals of Nursing". St. Louise: Mosby (2005): 960.
- 2. Burch JM., *et al.* "Schwartz Principles of surgery". 8th edition. Mc Graw-Hill (2022).
- Akkose Aydin S., et al. "Trauma in the elderly patients in Bursa". Ulus Travma Acil Cerrahi Derg 12.3 (2006): 230-234.
- 4. Siram SM., *et al.* "Dose the pattern of injury in elderly pedestrian trauma mirror that of the younger pedestrian?" *Journal of Surgical Research* 167.1 (2011): 14-18.
- Binder S. "Injuries among older adults: The challenge of optimizing safety and minimizing unintended consequences". *Injury Prevention* 8.4 (2022): iv2-4.
- Razavi SM., et al. "Prevalence of Musculoskeletal disorders and it's risk factors among, mothers' home working". Journal of Sabzevar University of Medical Sciences 19.4 (2013): 395-399.
- 7. Kirschner A., et al. "The changing faces of rural America, Population change and rural society" 3 (2006): 53-74.
- 8. Samaras N., et al. "Older patients in the emergency department: a review". Annals of Emergency Medicine 22.8 (2010): 1196-1202.

- 9. Aschkenasy MT and Rothenhaus TC. "Trauma and falls in the elderly". *Emergency Medicine Clinics of North America* 24.2 (2006): 413-432.
- 10. Adam SH., et al. "Epidemiology of geriatric trauma in United Arab Emirates". Archives of Gerontology and Geriatrics 47.3 (2008): 377-382.
- Safavi Bayat Z and Zorriasatain F. "Determining risk factors associated with falling among elderly at residential care facilities in Tehran (Persian)". Journal of Qazvin University of Medical Sciences 11.4 (2008): 66.
- 12. Karbakhsh M and Zandi NS. "Pattern of poisoning in the elderly: an experience from Tehran". *Clinical Toxicology* 46.3 (2008): 211-217.
- 13. Kramarow E., *et al.* "Food-related choking deaths among the elderly". *Injury Prevention* 20.3 (2014): 200-203.
- 14. Abu-Sittah GS., et al. "Management of burns in the elderly". Annals of Burns and Fire Disasters 29.4 (2016): 249.
- 15. Sung SY and Kim SW. "A study on the actual condition and reduction plan of traffic accidents for the elderly". *The Journal of the Korea Contents Association* 20.1 (2020): 437-447.
- 16. Gosain A and DiPietro LA. "Aging and wound healing". *World Journal of Surgery* 28.3 (2004): 321-326.