



Healthcare Policy for Patients with Chronic Heart Failures at Nam Dinh General Hospital in Vietnam

Pham Thi Bich Ngoc^{1*}, Dinh Tran Ngoc Huya² and Pham Thi Hong Nhung³

¹*Nursing and Midwifery Faculty, Nam Dinh University of Nursing, Vietnam.*

²*Banking University HCM city Vietnam – GSIM, International University of Japan, Niigata, Japan.*

³*Nam Dinh Provincial General Hospital, Vietnam.*

Authors' contributions

This work was carried out in collaboration among all authors. All authors read and approved the final manuscript.

Article Information

DOI: 10.9734/JPRI/2021/v33i40B32290

Editor(s):

(1) Dr. Wenbin Zeng, Central South University, China.

Reviewers:

(1) Doaa El Amrousy, Tanta University, Egypt.

(2) R.G. Jani, VET College, India.

Complete Peer review History: <https://www.sdiarticle4.com/review-history/71495>

Original Research Article

Received 03 June 2021

Accepted 09 August 2021

Published 13 August 2021

ABSTRACT

The study aims to provide knowledge of healthy food to serve for better health of patients through analyzing the current status of self-care knowledge and practice of patients with chronic heart failure at the Department of Cardiology - Nam Dinh General Hospital in 2018 and evaluate the change in self-care knowledge of patients with chronic heart failure after health education interventions. We perform method of one-group intervention study with before-after comparison. Health education intervention was carried out for 90 patients with chronic heart failure inpatient treatment at Cardiology Department - Nam Dinh General Hospital. Our results show that a good healthcare and nutrition policy for patients are needed: reduce natri, increase fibre-rich foods such as whole grain, vegetables, bean, etc. It pointed that roles of nurses are becoming important because Patients with chronic heart failure have limited knowledge and practice of self-care but have improved significantly after health education interventions. Research results show the need for regular health education to improve knowledge and practice self-care for patients with chronic heart failure. This research finding and recommended healthy foods to support for better health of patients with chronic heart failure in many developing countries.

Keywords: Nam Dinh hospital; patients; chronic heart failure; Vietnam; healthcare.

1. INTRODUCTION

Heart failure is a condition in which the heart muscle is no longer able to pump enough blood to pump enough blood to various organs in the body. This is the end result of heart disease, artery disease, systemic diseases [1-5].

In Vietnam, number of patients with heart failures have been increasing in past years and nurses at hospitals need to equip them with self care knowledge and rational nutrition mechanism.

Vietnam Population 98,157,771 people as June 26, 2021 Quick Facts The current population of Vietnam is 98,157,771 people as of June 26, 2021 according to the latest figures from the United Nations. Vietnam's population currently accounts for 1.25% of the world's population. Vietnam is ranked 15th in the world in the ranking of the population of countries and territories [6-8]. The population density of Vietnam is 317 people/km². (Source: <https://danso.org/viet-nam/>) Therefore, number of patients will increase in future. Also see exhibit 1 we see speed of urban population has been increasing over years.

Within the scope of this study, we will propose health care policy and food and nutrition package for patients with chronic heart failures in hospitals, in a case of Nam Dinh general hospital.

The paper is organized with introduction it is the research issues, literature review and methodology. Next is methodology and data and main research findings/results. Section 5 and 6 gives us some discussion and conclusion.

2. BODY OF MANUSCRIPT

2.1 Research Issues

Issue 1: What are suggestions for healthcare policy and nutrition package for patients with chronic heart failures in hospitals?

Issue 2: What are suggestions for accounting information transparency to reduce risk?

2.2 Literature Review

First we address Causes of heart failure:

- Coronary artery disease.
- Heart disease due to high blood pressure.
- Heart valve disease.

- Cardiomyopathy: dilated cardiomyopathy, hypertrophic cardiomyopathy, restrictive cardiomyopathy

- Congenital heart disease.

What do we mean by self-care?

According to WHO defines self-care as “the ability of individuals, families and communities to promote health, prevent disease, maintain health, and to cope with illness and disability with or without the support of a healthcare provider”. (source: <https://www.who.int/reproductivehealth/self-care-interventions/definitions/en/>, access date 12/8/2021)

So self-care is a part of everyday life, including the actions by which individuals and take care of themselves, their children, families and others to keep healthy and in good spirits; meet social and psychological needs; prevent illness or accidents; care for minor illnesses and long-term conditions; maintaining health and well-being after acute illness or discharge.

According to Barbara Riegel and Victoria Vaughan Dickson [9], self-management is a term that is consistently used as a synonym for self-care. Barbara Riegel et al. [10] pointed out that: in chronic heart failure, self-care is not synonymous with adherence but instead adherence as a component of self-care.

3. METHODOLOGY AND DATA

For research approach, this study mainly use combination of quantitative methods and qualitative methods including synthesis, inductive and explanatory methods.

One-group intervention study design with before-after comparison. Health education intervention was carried out for 90 patients with chronic heart failure inpatient treatment at Cardiology Department - Nam Dinh General Hospital. Using a toolkit to measure self-care knowledge and practice in chronic heart failure to collect data from January to April 2018.

4. MAIN RESULTS

4.1 Overall Analysis of Heart Failures Disease in the World and Vietnam

Situation of heart failure in the world: It is estimated that around 26 million people worldwide suffer from chronic heart failure [11].

In the United States, between 2011 and 2014, an estimated 6.5 million Americans over the age of 20 had chronic heart failure [2]. Projections show that the prevalence of chronic heart failure will increase by 46% between 2012 and 2030, leading to over 8 million adults with chronic heart failure. The total cost of heart failure treatment is estimated to increase from \$31 billion in 2012 to \$70 billion by 2030 [12]. The mortality from heart failure at 30 days, 1 year, and 5 years after hospitalization for heart failure was 10.4%, 22%, and 42.3%, respectively [13].

The estimated prevalence of heart failure in Asia ranges from 1.26% to 6.7% [14], in Southeast Asian countries from 4.5% to 6.7% [14].

The rate of heart failure in Korea was estimated at 1.53% in 2013. The frequency of heart failure in Korea is expected to double, from 1.60% in 2015 to 3.35% in 2040. By 2040, more than 1.7 million Koreans are expected to have heart failure [15].

In Japan, an estimated 1.0 million patients have heart failure and the number of outpatients with left ventricular dysfunction is expected to gradually increase to 1.3 million by 2030 [16].

In China, 4.2 million people suffer from heart failure and 500,000 new cases are diagnosed each year [17].

Heart failure situation in Vietnam: NCDs are increasing rapidly in Vietnam, including heart failure. NCD mortality in total deaths has increased from 56% (in 1990) to 72% (in 2010). In which, cardiovascular disease accounted for 30% of total deaths, cancer accounted for 21%, chronic respiratory disease 6%, diabetes accounted for 3%, mental and neurological diseases accounted for 2%. Through the study of disease patterns in inpatients at the Vietnam Heart Institute during the period from 2003 to 2007, heart failure was one of the five most hospitalized cardiovascular disease groups (accounting for 19.8% of the total hospital admissions). In Vietnam, although there is no official study on the incidence of heart failure, but according to the world prevalence (0.4 - 2%) [18], it is estimated that there are 320,000 to 1.6 Millions of people in our country suffer from heart failure. There are no statistics in the community, but according to hospital statistics, over 60% of inpatients in Cardiology departments have heart failure of varying degrees.

4.2 Analysis of Food and Nutrition Package for Patients with Chronic Heart Failures

First, we see healthcare and nutrition policy for patients with heart failures as follows: The diet for people with heart failure will change depending on the degree of heart failure in order to reduce symptoms of shortness of breath, fatigue, chest pain, cough, edema... and improve the quality of life for patients. Accordingly, you need to pay attention to the following principles:

Patients need to Limit salt and sodium-rich foods: Sodium is a mineral present a lot in salt and foods such as shellfish, eggs, milk ... Eating too much salt and foods rich in sodium will cause the body to increase water retention, adversely affecting heart failure. A low-salt diet will help you control your blood pressure, avoid edema, and improve shortness of breath. The recommended sodium intake is no more than 2,000 mg (2 grams) per day and less than 1,500 mg is ideal. If you have severe heart failure (end-stage heart failure), they need to eat bland food completely.

Next, we see recommendations for patients with heart failures stage 3 and stage 4 as below:

* Heart failure stage 3
Energy: 30 Kcal/kg ideal body weight/day.
Protein: 1g/kg ideal body weight/day.
Fat: 15-20% of total energy.
Reduced sodium: <1600mg Na/day (<4g salt/day).
Increase potassium: 4000-5000mg/day, increase magnesium.
Limit heavy labor and strenuous activities.
Take proper rest after eating.

* Heart failure stage 4
Energy: 25 - 30 kcal/kg ideal body weight/day.
Protein: 0.8 - 1g/kg ideal body weight/day.
Fat: 15-20% of total energy.
Reduced sodium: <1200mg Na/day (<3g salt/day).
Increase potassium: 4000 - 5000mg/day (choose potassium-rich vegetables).
Divide meals into several small meals throughout the day.
Take proper rest after eating.
Enough vitamins, especially vitamins of group B. (source: vinmec.com, access date 25/6/2021).

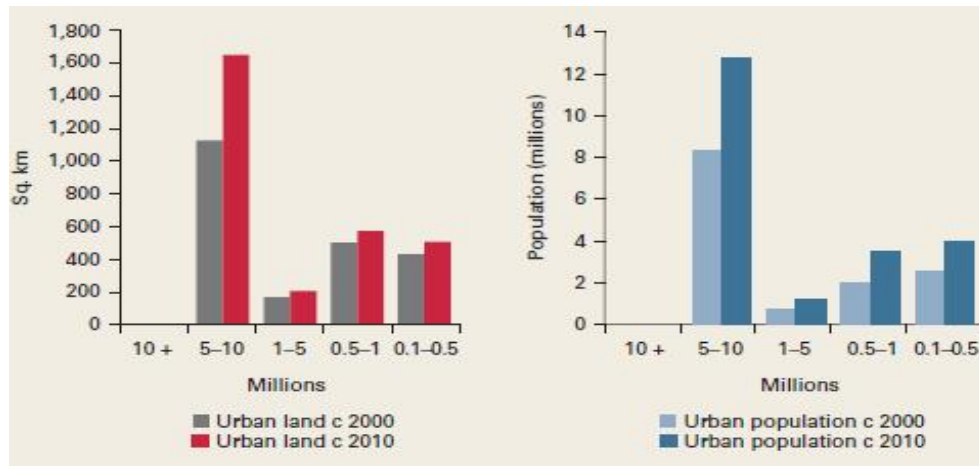


Fig. 1. Vietnam urban land and population 200-2010
(source: www.worldbank.org/EAP, access date 24/6/2021)

4.3 Further Analysis of Internal Control in Real Estate and Construction Projects

4.3.1 Self-care of patients with chronic heart failure

Concept*

Self care: The World Health Organization (1983) defines self-care as the activities individuals, families and communities undertake to promote health, prevent disease, limit disease and restore health. According to Dorothea Orem, self-care is the practice of activities that the individual initiates and carries out those activities to maintain life, health and well-being. (source: <https://selfcarejournal.com/article/self-care-in-health-we-can-define-it-but-should-we-also-measure-it/>, access date 11/8/2021).

Self-care in chronic heart failure: Self-care of a person with heart failure is the behavior that helps the patient maintain physical condition, monitor for signs of disease (maintenance of care), recognize and respond appropriately to changes or onset of symptoms of heart failure, and evaluate the effectiveness of management that (care management).

Maintenance of care includes activities such as medication, exercise, salt-restricted diet, fluid restriction, weight monitoring, edema, dyspnea, preventive behavior, routine check-ups. Care management is done when heart failure symptoms are present, including recognizing symptoms (recognizing weight changes, edema, dyspnea) and responding to symptoms of

disease (fluid restriction, eat a light meal, take more diuretics, call the doctor for advice or a medical facility), and evaluate the effectiveness of that treatment

Self-care is described in 5 stages: implementing adherence behaviors and monitoring symptoms, recognizing symptoms, assessing symptoms, implementing treatments, and evaluating the effectiveness of those treatments. . This is an active, deliberate process that is essential in patients with chronic heart failure.

Self-care confidence is not part of the self-care process but it is an important factor influencing the effectiveness of self-care.

4.3.2 Purpose of self-care in chronic heart failure

Self-care is advocated as a method to increase the effectiveness of treatment, as a prerequisite for improving health and reducing the risk of re-hospitalization in patients with chronic heart failure. Most of the costs associated with chronic heart failure care are the result of readmissions for exacerbation of heart failure, many of which can be attributed to poor self-care. This is again preventable [16].

Patients actively participating in self-care improves survival and reduces re-hospitalization. Patients (NBs) who do not comply with recommendations for treatment of heart failure without medication often have adverse outcomes [19]. The lack of adherence to pharmacological and non-pharmacological

regimens, as well as delay in hospitalization when symptoms worsen, will aggravate the disease, increase the risk of death for patients [11].

The European Society of Cardiology emphasizes the importance of self-care as part of successful treatment. It can reduce symptoms of disease aggravation, improve health, reduce the risk of re-hospitalization, and improve quality of life. Guidelines recommend that health care workers (HCWs) provide a comprehensive program of education and counseling on heart failure that focuses not only on knowledge but also on skills and behaviors.

Self-care programs help patients manage symptoms, monitor treatment for complications, make appropriate lifestyle changes, improve treatment adherence, thereby reducing re-hospitalization and mortality rates. costs of care and use of health services.

Some self-care recommendations for patients with chronic heart failure (source: Vietnam Society of Cardiology (2015). Recommendations on diagnosis and treatment of heart failure 2015, <http://vnha.org.vn/cate.asp?cate_id=168>, accessed 11/11/2017.

According to the American Heart Association and the Vietnam Heart Association, recommendations for self-care in patients with chronic heart failure include the following basic elements:

4.3.3 Use medication as prescribed

Drugs used in chronic heart failure to reduce the progression of the disease. Therefore, it is very important for patients to adhere to medication treatment.

Notes when using drugs to treat chronic heart failure:

- It is necessary to properly and fully comply with the drugs prescribed by the doctor in terms of time, dose, and method of use. If you do not understand clearly, you should consult your doctor for a detailed explanation.

If you forget to take your medicine, take it as soon as you remember. There should be a system to remind the time to take medicine such as asking relatives to remind or schedule a time to take medicine.

- Do not stop taking the medicine or change the dose without consulting your doctor. Patients with heart failure need to understand that heart failure medications are not supplements and cannot be changed on their own. Many patients voluntarily stop a medication just because it is difficult to take (such as potassium salt packs) or increase the dose themselves because they think it is a heart drug (such as Digoxin) without knowing that the doctor has combined the drugs with the optimal dose. to avoid complications. Many sick people have died because of such spontaneity [20-22].

- Bring your prescription for treatment to each follow-up visit.

Knowledge of drug side effects:

+ Heart drugs (such as Digoxin) if used in high doses will cause poisoning leading to increased mortality. The pulse must be monitored while taking the drug because the drug causes a decrease in heart rate.

+ Diuretics cause low potassium, so you should add potassium when taking diuretics and eat foods high in potassium such as bananas, oranges, plums, soybeans, potatoes...

+ Some groups of medicine inhibitors (such as Coversyl) can cause side effects such as cough, rash, low blood pressure, so blood pressure should be monitored when using...

5. DISCUSSION AND FURTHER RESEARCHES

Beside, in order to improve better health for patients with heart failures, we need: Heart failure patients increase fiber-rich foods Fiber found in vegetables, beans, whole grains, fresh fruits... helps the digestive system work better, contributing to good control of blood sugar and cholesterol levels. High-fiber foods also include natural antioxidants that are beneficial for heart health. Aim for dietary fiber of 25-35g per day. However, do not use raw vegetables that cause bloating such as vegetables, beans, fermented foods. (When the abdomen is distended, it will push the diaphragm up and affect the heart.). If patients or a loved one is living with heart failure, you can refer to using more natural support solutions to help relieve symptoms, improve quality of life and prolong life. sick.

Add whole grains: Whole grains are considered the golden foods for the cardiovascular system. Because they contain abundant fiber and many

other nutrients that are beneficial for blood pressure regulation in particular and cardiovascular health in general. At the same time, they also work to reduce the amount of fat in the blood [23-25]. Nurses and patients can increase the amount of whole grains in your heart-healthy menu by replacing them with refined grains. With grains to choose from are whole wheat flour, whole grain bread, brown rice, barley and buckwheat, oatmeal ...In specific:

⌘ Salt restriction diet

Usually limited to less than 5 grams of salt per day. As follows:

- Heart failure stage 1,2: less than 5 grams of salt / day (processing only adds 4 grams of salt = 4 teaspoons of fish sauce = 20 ml)
- Heart failure stage 3: less than 4 grams of salt / day (processing only adds 3 grams of salt = 3 teaspoons of fish sauce = 15 ml)
- Heart failure stage 4: depending on the clinical condition can:
Eat relatively bland: less than 3 grams of salt/day (processing only adds 2 grams of salt = 2 teaspoons of fish sauce = 10 ml)
Eat completely bland: do not add salt, main noodles, fish sauce, seasoning powder during processing. Even if the patient does not have edema or is taking diuretics, reducing salt intake will also make treatment better. To follow a salt-restricted diet, patients should:
 - Ask family members to cooperate in reducing salt cooking
 - Do not put salt and fish sauce on the dining table to avoid temptation.
Avoid processed foods with a high salt content such as pickled tomatoes, pickles, processed foods such as smoked meats, canned meats, braised fish and fish, frozen foods, ham, cheeses , sausage, bread...
 - When eating out, you should ask for less salt and noodles. - You should read food labels to know the salt content in them.

Liquid restriction mode: Drinking a lot of water will increase the burden on the heart. Water and salt retention increases the amount of fluid in the blood. The heart will have to work harder to push the increased blood throughout the body. Therefore, patients with chronic heart failure without edema should limit fluids to less than 2 liters/day. To limit fluid, patients with chronic heart failure should: Only drink water when you feel thirsty. When drinking water, you need to

drink it in small sips, drinking from a small cup is better than drinking from a large cup When patients have to try to limit fluid intake, thirst can be reduced by chewing gum or sucking on hard candy [26-29]. - Remember that milk, ice cream, yogurt, and porridge also contain liquid, so you need to balance the amount of liquid you put in. - Limit alcoholic beverages: such as beer, wine; Limit caffeinated beverages such as coffee, tea, and some carbonated beverages.

6. CONCLUSION AND POLICY SUGGESTION

Via our study we realize that:

- In nutrition and food policy for patients with heart failures, we need to reduce natri in food and increase fiber-rich food such as whole grain and bean, etc.
- Moreover, Fat or lipid is a major culprit in atherosclerosis and increased heart events. So you need to minimize the amount of fat in your daily diet, specifically limit fatty meats, red meat, lean meat and fish should be eaten; Prioritize dishes prepared by steaming, boiling, instead of frying, stir-frying, frying
- Drinking the right amount of water every day will be good for people with heart failure: When heart failure, the pumping power of the heart is weakened, water will be trapped in the body and easily cause edema. If you experience symptoms such as swelling or difficulty breathing, reduce the amount of water you are drinking. Doctors recommend that patients with heart failure should not drink more than 2 liters of water per day (including water in food) and up to 1 liter / day for patients with severe heart failure. It is best to only drink water when you feel thirsty. However, if you see dark urine, you need to add more water until the urine is clear again.
- Last but not least, Liquid restriction mode: drink lot of water will increase heart burden, so patients with chronic heart failure without edema should limit fluids to less than 2 liters/day. Salt restriction diet: Usually limited to less than 5 grams of salt per day.

LIMITATION OF RESEARCH

We can expand our research model to other diseases and markets.

DISCLAIMER

The products used for this research are commonly and predominantly use products in our area of research and country. There is absolutely no conflict of interest between the authors and producers of the products because we do not intend to use these products as an avenue for any litigation but for the advancement of knowledge. Also, the research was not funded by the producing company rather it was funded by personal efforts of the authors.

CONSENT AND ETHICAL APPROVAL

As per international standard or university standard guideline patients consent and ethical approval has been collected and preserved by the authors.

ACKNOWLEDGEMENTS

I would like to express my warm thanks to Board of Editors and Colleagues and brothers in assisting convenient conditions for my research paper.

COMPETING INTERESTS

Authors have declared that no competing interests exist.

REFERENCES

1. Riegel B, Moser DK, Anker SD, et al. State of the science: Promoting self-care in persons with heart failure: A scientific statement from the American Heart Association. *Circulation*. 2009 ;120(12):1141-1163.
2. Hu SS, Kong LZ, Gao RL, et al. Outline of the report on cardiovascular disease in China, 2010. *Biomed Environ Sci*. 2012;25 (3):251-256.
3. Ausili D, Masotto M, Dall'Ora C, et al. A literature review on self-care of chronic illness: Definition, assessment and related outcomes. *Prof Infirm*. 2014;67(3):180-189.
4. Formiga F, Chivite D, Manito N, et al. Hospitalization due to acute heart failure. Role of the precipitating factors. *Int J Cardiol*. 2007;120(2):237-241.
5. Wal MHLVD, Veldhuisen DJV, Veeger NJGM, et al. Compliance with non-pharmacological recommendations and outcome in heart failure patients. *Eur Heart J*. 2010;31(12):1486-1493.
6. Ditewig JB, Blok H, Havers J, et al. Effectiveness of self-management interventions on mortality, hospital readmissions, chronic heart failure hospitalization rate and quality of life in patients with chronic heart failure: a systematic review. *Patient Educ Couns*. 2010;78(3):297-315.
7. Artinian NT, Morris M, Michelle S, et al. Self-care behaviors among patients with heart failure. *Heart & Lung: The Journal of Acute and Critical Care*. 2002;31(3):161-172.
8. Hang NT, Tinh DT, Huy DTN, Nhung PTH. Educating and training labor force Under Covid 19; Impacts to Meet Market Demand in Vietnam during Globalization and Integration Era, *Journal for Educators, Teachers and Trainers*. 2021;12(1). DOI: 10.47750/jett.2021.12.01.023
9. Dickstein K, Cohen-Solal A, Filippatos G, et al. ESC guidelines for the diagnosis and treatment of acute and chronic heart failure 2008: the Task Force for the diagnosis and treatment of acute and chronic heart failure 2008 of the European Society of Cardiology. Developed in collaboration with the Heart Failure Association of the ESC (HFA) and endorsed by the European Society of Intensive Care Medicine (ESICM). *Eur J Heart Fail*. 2008;10(10): 933-989.
10. Benjamin EJ, Blaha MJ, Chiuve SE, et al. Heart disease and stroke statistics-2017 update: A report from the American heart association. *Circulation*. 2017;1:e146-e603.
11. Ponikowski P, Anker SD, AlHabib KF, et al. Heart failure: Preventing disease and death worldwide. *ESC Heart Fail*. 2014;1(1):1-25.
12. Heidenreich PA, Albert NM, Allen LA, et al. Forecasting the impact of heart failure in the United States: A policy statement from the American Heart Association. *Circ Heart Fail*. 2013;6 (3):606-619.
13. Loefer LR, Rosamond WD, Chang PP et al. Heart failure incidence and survival (from the Atherosclerosis Risk in Communities study). *Am J Cardiol*. 2008;101(7):1016-1022.
14. Lam CSP. Heart failure in Southeast Asia: Facts and numbers. *ESC Heart Fail*. 2015;2(2):46-49.

15. Lee JH, Lim NK, Cho MC, et al. Epidemiology of heart failure in Korea: Present and Future. *Korean Circ J*. 2016;46(5):658-664.
16. Okura Y, Ramadan MM, Ohno Y, et al. Impending epidemic future projection of heart failure in Japan to the year 2055. *Circulation Journal*. 2008;72(3):489-491.
17. Ministry of Health of Vietnam. Strengthening prevention and control of non-communicable diseases, General report of health sector 2014, Medicine Publishing House. Hanoi; 2015.
18. Roger VRL, Weston SA, Redfield MM, et al. Trends in heart failure incidence and survival in a community-based population. *JAMA*. 2004;292(3):344-350.
19. Pham Nguyen Vinh, et al. Recommendations. on cardiovascular and metabolic diseases, Recommendations of the Vietnam Cardiology Association on the diagnosis and treatment of heart failure, Medical Publishing House, Ho Chi Minh City. 2008;438-450.
20. Huy DTN. The critical analysis of limited south asian corporate governance standards after financial crisis. *International Journal for Quality Research*. 2015;9(4):741-764.
21. Huy DTN. Estimating beta of viet nam listed construction companies groups during the crisis. *Journal of Integration and Development*. 2012;15(1):57-71.
22. Huy DTN, Loan BT, Anh PT. Impact of selected factors on stock price: A case study of Vietcombank in Vietnam, *Entrepreneurship and Sustainability*. 2020; 7(4):2715-2730. Available:https://doi.org/10.9770/jesi.2020.7.4(10)
23. Huy DTN, Dat PM, Và Anh PT. Building and econometric model of selected factors' impact on stock price: A case study, *Journal of Security and Sustainability Issues*. 2020;9(M):77-93. Available:https://doi.org/10.9770/jssi.2020.9.M(7)
24. Huy DTN, Nhan VK, Bich NTN, Hong NTP, Chung NT, Huy PQ. Impacts of Internal and External Macroeconomic Factors on Firm Stock Price in an Expansion Econometric model—A Case in Vietnam Real Estate Industry, *Data Science for Financial Econometrics-Studies in Computational Intelligence*. 2021;898. Springer. Available:http://doi-org-443.webvpn.fjmu.edu.cn/10.1007/978-3-030-48853-6_14
25. Health education in self-care: Possibilities and limitations. Report of a Scientific Consultation. Geneva, Switzerland: World Health Organization. 1983;21–25. Accessed September 4th 2013
26. Nguyen Thi Minh Chinh, Pham Thi Bich Ngoc, Nguyen Minh Loi, Dinh Thi Thu Hang, Dinh Tran Ngoc Huy, Pham Van Tung. Deepening analysis on preventing fall risk with knowledge and practices of nurses and nursing systematic review in pharmacy. 2021;12(3): 308-313. DOI:10.31838/SRP.2021.3.48
27. Pham Thi Bich Ngoc, Ngo Huy Hoang, Dinh Thi Thu Hang, Dinh Tran Ngoc Huy. Evaluating fall prevention for patients at nam dinh hospital in Vietnam, *European Journal of Molecular and Clinical Medicine*. 2020;7(10):3114-3119
28. Riegel B, Dickson VV. A Situation specific theory of heart failure self care. *Journal of Cardiovascular Nursing*. 2008;23(3):190-196.
29. Riles EM, Jain AV, Fendrick AM. Medication adherence and heart failure. *Curr Cardiol Rep*. 2014;16 (3):458.

© 2021 Ngoc et al.; This is an Open Access article distributed under the terms of the Creative Commons Attribution License (<http://creativecommons.org/licenses/by/4.0>), which permits unrestricted use, distribution, and reproduction in any medium, provided the original work is properly cited.

Peer-review history:
 The peer review history for this paper can be accessed here:
<https://www.sdiarticle4.com/review-history/71495>