



Development of Screening Instruments for Detection of Neglect in the Elderly with Cardiovascular Disorders

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ABSTRACT: Neglect in the elderly, if not addressed, will cause serious problems, especially in the elderly who have cardiovascular problems. This study aims to develop an instrument that detects neglect of the elderly with cardiovascular disorders at home. This study uses Research and Development research design. The population is all families with elderly and elderly who experience cardiovascular disorders in the working area of the Nanggalo Health Center, Padang. Data were collected using questionnaires to the elderly families and guided interviews with the elderly. The results of the questionnaire development obtained 42 questions that can be used to detect neglect of the elderly with cardiovascular disorders at home.

KEYWORDS: Elderly, Family, Instrument, Neglect, Screening.

INTRODUCTION

The increasing life expectancy causes the number of elderly people to increase. In 2050 it is estimated that the number of elderly people in the world is 25.3%, while in Indonesia it is 21.4%. The increasing number of elderly will have an impact on the health status of the elderly themselves and will increase the population at risk (Kemenkes, 2017).

The characteristics of the risk that exist in the elderly, will increase the dependence of the elderly on the family. Changes that occur in the elderly result in weakness and decreased function, resulting in the increasing dependence of the elderly on family and caregivers. The increasing dependence of the elderly will have an impact on the treatment of the elderly themselves so that the elderly are at risk of not having all their needs met, thus indirectly families and communities experience failure in providing services to the elderly or in other words an improper understanding of the elderly causes the elderly to be often ignored (Potter.A.P & Perry.G.A., 2009).

Neglect of the elderly can be interpreted as a failure to provide care, either intentionally or unintentionally when the elderly need food, treatment, leaving the elderly alone, not providing services to the elderly as a punitive measure for the elderly (Mauk, 2010). Neglect in the elderly is part of the incidence of mistreatment. Alon in Winterstein (2012), state that neglect of the elderly is one part of the abuse perpetrated by family members and caregivers. While Leeb et al in Nies, Mary A. and McEwen (2019) define neglect as a failure to provide a person's basic needs which include physical, emotional, educational needs or to protect someone from harm or potential harm.

Some research results show that there are still many elderly people who experience neglect by their families and family support is the main factor as support in the lives of the elderly. The results of Dewi's research (2018) on "Olderly Neglect in the Work Area of the Aceh Besar Health Center" were found to be close to half of the elderly experiencing high neglect (47.1%). Research conducted by Ramlah (2011), states that the elderly need family support, especially emotional support so that they can avoid the occurrence of neglect of the elderly in the family. While Pitaloka's research (2018), states that the function of family nursing, role structure, economic function, long-term stress, health functions, information and pathological conditions of the elderly are related to the prevention of neglect of the elderly in the family.

Neglect in the elderly if not addressed will cause serious problems, especially in the elderly who have cardiovascular problems. Cardiovascular disease is a disease caused by impaired function of the heart and blood vessels such as coronary heart disease, hypertension, and stroke. Every year more than 36 million people die from non-communicable diseases (NCDs) (63% of all deaths). "Early" deaths caused by heart disease occur around 4% in high-income countries, with 42% occurring in low-income countries (Martiningsih, 2019).

If no preventive measures are taken against risk factors for cardiovascular disease, then in 2030 the number of people who died will increase to 23.6 million, and the largest increase in the number of deaths will occur in the Southeast Asian region (Setiadi, 2018).



Elderly who have a history of cardiovascular disease and experience neglect by the family can cause more complex diseases so that they can experience disability and decrease the quality of life of the elderly. Problems will also be experienced by the families who care for them, long-term care will be a burden for the family which will have an impact on decreasing the level of life satisfaction of the elderly to the neglect of the elderly by their own families. Therefore, it is very necessary to have an effort by health workers to minimize and even prevent this condition of neglect.

The elderly family is the first to detect cardiovascular disorders in the elderly, so that the family can make decisions and care for the elderly. There are five family tasks that must be carried out by the family, namely recognizing, making decisions, caring for, modifying, and using health facilities in the elderly with cardiovascular disorders.

One of the efforts to minimize the incidence of neglect in the elderly who have cardiovascular problems is an easy and fast tool to determine the risk of neglect in the elderly who have cardiovascular disorders. At this time in public health services there is no instrument used to detect the risk of neglect in the elderly who have cardiovascular disorders.

This study aims to develop an instrument that can detect neglect of the elderly who have cardiovascular disorders at home. The development of the instrument relates to five family tasks within the scope of family behavior (knowledge, attitudes and actions). The results of the study in the form of a neglect detection instrument for the elderly who have cardiovascular disorders can be used by service personnel at the Puskesmas.

RESEARCH METHODS

This study using Research and Development research design. There are six stages in this study, namely initial data collection in the form of identification of estimated needs, planning for making a product in the form of a question item instrument from 5 family tasks related to cardiovascular disorders in the elderly, making an initial product form in the form of a grid of questions related to five family tasks. Elderly who experience cardiovascular disease are then consulted with experts or experts, expert trials, product improvements according to data obtained from expert trials, and the last stage is instrument testing or questionnaires with factor analysis in the SPSS Version 21 application.

The research was conducted in the working area of the Nanggalo Health Center, Padang City, Indonesia. The research period is from February to November 2021.

The population is all families who have elderly and elderly who experience cardiovascular disorders in the working area of the Nanggalo Padang Health Center. The sample is part of the population, namely families who have elderly and who have cardiovascular disorders. After the inclusion and exclusion criteria were carried out, the number of samples in this study was 300 families and the elderly.

Developing the instrument in the form of a questionnaire refers to five family tasks, starting from recognizing, deciding, caring for, modifying the environment and utilizing health services. Data was collected by means of questionnaires to the elderly families and guided interviews to the elderly.

RESULT AND DISCUSSION

Data analysis of the screening instrument for the detection of neglect of the elderly with cardiovascular disorders was carried out using the factor analysis test with SPSS Version 21.

A. Test Stage 1

Based on the KMO and Bartlett's Test, it is known that the KMO MSA value is $0.794 > 0.50$ and the Bartlett's Test of Sphericity (Sig.) value is $0.0001 < 0.05$, then the factor analysis in this study can be continued because it already meets the first requirements.

B. Test Stage 2

Based on the KMO and bartlett's test, it is known that the KMO MSA value is $0.846 > 0.50$ and the bartlett's test of sphericity (Sig.) value is $0.0001 < 0.05$, then the factor analysis in this study can be continued because it already meets the first requirements. The output of anti-image matrices contains one question item with an MSA value of < 0.50 , then a re-analysis process is carried out on the question item.

C. Test Stage 3

Based on the KMO and bartlett's test output, it is known that the KMO MSA value is $0.848 > 0.50$ and the bartlett's test of sphericity (Sig.) value is $0.0001 < 0.05$, then the factor analysis in this study can be continued because it has fulfilled the first requirement.



Based on the output of "anti-image matrices" it is known that the MSA value is > 0.50 , then the second requirement in the factor analysis is met. Based on the communalities output table, it can be concluded that all question items can be used to explain factors. Based on the output table, the total variance explained in the Initial Eigenvalues section, there are 14 factors that are formed from the 55 question items analyzed, where the requirement to be a factor is that the Eigenvalues must be > 1 . Based on the output, if factors 1 to factor 14 are added up, it is able to explain 71,643 % variation. The total value of the component 15 to 55 < 1 is not a factor. The Scree Plot image shows the number of factors formed. Based on the scree plot image, there are 14 component points that have an Eigenvalue > 1 , which means that there are 14 factors that can be formed.

The question items that are feasible to use from the family task dimension are as follows.

- 1) Recognize family health problems
 - a) Severe chest pain is a complaint that is nothing to worry about
 - b) Elderly who have cardiovascular disorders (Stroke, Hypertension, Heart) should eat low-fat foods
 - c) Elderly who have cardiovascular disorders (Stroke, Hypertension, Heart) should eat low-salt foods
 - d) Elderly who have cardiovascular disorders (Stroke, Hypertension, Heart) exercise 3 times a week for at least 30 minutes
 - e) Elderly who have cardiovascular disorders (Stroke, Hypertension, Heart) should not smoke
 - f) Elderly with cardiovascular disorders (Stroke, Hypertension, Heart) should limit alcoholic beverages
 - g) The elderly who have cardiovascular disorders need adequate rest.
 - h) Elderly who have cardiovascular disorders (hypertension, stroke and heart) need to take medication regularly for the rest of their life
- 2) Make the right health action decisions
 - a) Families immediately take them to health services if the elderly experience severe chest pain
 - b) Families are always looking for the latest information on how to care for the elderly with cardiovascular disorders
 - c) Families must provide low-salt food for the elderly who have cardiovascular disorders (hypertension, stroke and heart)
 - d) Families must provide low-fat meals for the elderly with cardiovascular disorders (hypertension, stroke and heart disease).
 - e) Families must provide understanding to avoid smoking in the elderly who have cardiovascular disorders (hypertension, stroke and heart)
 - f) The family will help the elderly who have cardiovascular disorders (hypertension, stroke and heart) in exercising
 - g) The family will accompany the elderly who have cardiovascular disorders (Hypertension, Stroke and Heart) for regular control of health services
 - h) Families will always motivate the elderly who have cardiovascular disorders (hypertension, stroke and heart) to exercise regularly
 - i) The family will pay attention to the need for sleep for the elderly in a day for 6-7 hours
 - j) Elderly families with cardiovascular disorders (Stroke, Heart Hypertension) check/check the Elderly drug supply
 - k) The existence of the family is very influential on the recovery process for the elderly who have cardiovascular disorders
 - l) The family will always provide time to chat with the elderly who have cardiovascular disorders (Hypertension, Stroke and Heart)
 - m) The elderly who have cardiovascular disorders who are already receiving medication do not need regular control
 - n) The family will check the BP of the elderly who have cardiovascular disorders (hypertension, stroke and heart) on a regular basis
 - o) Families will help the elderly who have cardiovascular disorders (hypertension, stroke and heart) in worship activities
 - p) Families will help the elderly with cardiovascular disorders (hypertension, stroke and heart disease) in their spare time or recreation
 - q) The family will help the elderly with cardiovascular disorders (hypertension, stroke and heart) in the recovery process
- 3) Provide care to sick family members
 - a) The family separates the food for the elderly with cardiovascular disorders (Stroke, Heart Hypertension) from the family diet
 - b) Families provide foods rich in fiber, vegetables and fruits every day for the elderly who have cardiovascular disorders (Hypertension, Stroke and Heart)



- c) Families feed the elderly who have cardiovascular disorders (Stroke, Heart Hypertension) when they are sick
 - d) The family provides drinking water near the bed for the elderly who have cardiovascular disorders (Stroke, Heart Hypertension)
 - e) The family bathes the elderly who have cardiovascular disorders (Stroke, Heart Hypertension) when they are sick
 - f) The family cleans up the elderly who have cardiovascular disorders (Stroke, Heart Hypertension) during defecation
 - g) The family cleans up the elderly who have cardiovascular disorders (Stroke, Heart Hypertension) when BAK
 - h) Families help the elderly who have cardiovascular disorders (hypertension, stroke and heart) in exercising
 - i) Families help the elderly with cardiovascular disorders (Hypertension, Stroke and Heart) in resting and sleeping
 - j) Families help the elderly who have cardiovascular disorders (Hypertension, Stroke and Heart) to develop their hobbies that support health
 - k) Elderly families with cardiovascular disorders (Stroke, Heart Hypertension) check/check the Elderly drug supply
 - l) Families help the elderly who have cardiovascular disorders (Hypertension, Stroke and Heart) in worship activities
 - m) The family provides for the needs of the elderly with cardiovascular disorders (hypertension, stroke and heart disease) to develop their hobbies that support health.
- 4) Modify the environment
- a) Families increase the safety of the elderly who have cardiovascular disorders (Stroke, Heart Hypertension) such as by cleaning the bathroom floor so that it is not slippery
 - b) Families increase the safety of the elderly who have cardiovascular disorders (Stroke, Heart Hypertension) such as giving handrails to the elderly bathroom
 - c) The family cleans the room for the elderly who have cardiovascular disorders (Stroke, Heart Hypertension) every day
 - d) The family changes the layout of the house according to the conditions of the elderly so that the elderly are able to carry out activities according to their abilities
- 5) Using/utilizing existing health facilities in the community
- Question items for the family's ability to use health facilities were not found to have a value > 0.5 . The researcher's analysis, it is necessary to revise the question about the ability of families to use existing health facilities in the community, so that families understand and can take advantage of any health facilities in the community to improve the health status of families, especially the elderly.

CONCLUSION

Based on the results of this study, Instruments related to the family's ability to recognize health problems for the elderly with cardiovascular disorders that are suitable for use are eight questions. Instruments related to the variable of the family's ability to make appropriate health action decisions in the elderly with cardiovascular disorders that are suitable for use are 17 question items. Instruments related to the ability of families to provide care for the elderly with cardiovascular disorders that are suitable for use have 13 questions. Instruments related to the family's ability to modify the environment of the elderly with cardiovascular disorders that are appropriate to be used to measure these variables have 4 question items. There are no question items that are appropriate to be used to measure the ability of families to use existing health facilities in the community for the elderly with cardiovascular disorders.

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