

Assessing the Nutritional Condition of The Elderly: Perspectives of Trained Health Workers and Significant Others in Countryside in Indonesia Inputs to an Action Plan

Menilai Kondisi Nutrisi Lansia: Perspektif Tenaga Kesehatan Terlatih dan Orang Lain yang Signifikan di Pedesaan di Indonesia Input ke Rencana Aksi

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Abstract

Background: Nutrition plays an important role in health maintenance, rehabilitation, and prevention and control of disease for the elderly. If undetected, nutritional problems among the elderly may result in more rapid deterioration of health and early death.

Methods: In this study, the researcher conducted descriptive correlational design to describe the perspectives of trained health workers and significant others on the nutritional condition of the elderly in terms of nutritional screening, nutritional assessment, and nutritional indication score.

Results: The population of this study is the trained health workers in Bambanglipuro and the significant others of the elderly who met the inclusion criteria. There are 50 of trained health worker respondents and 112 significant other respondents. Their assessment was assessed by themselves and tested significant differences using the T-test. All the computed t values were less than T values of 1.96. This result shows that the null hypothesis is accepted, meaning there is no significant difference between the assessment of the trained health worker respondents and the significant other respondents on the nutritional condition of the elderly. It proved that the significant others completely knew about the nutritional condition of the elderly.

Conclusions: Proposed action plan can be applied for enhancement of the nutritional condition of the elderly, such as to conduct a lecture related to the importance of assessing the physical problems of the patient, conduct a lecture related to the importance of assessing the patient's mode feeding, conduct a training workshop related how to measure Calf Circumference and Mid-arm Circumference (MAC).

Keywords: Nutritional screening, Nutritional assessment, Nutritional indication score.

INTRODUCTION

The number of elderly people worldwide will dramatically increase over the next decades. A study was found that the world's elderly population is exploding, with the number of people aged 65 and over expected to more than double by 2050 (Davies, 2016). Biological aging and disablement processes occur continuously and varies between individuals. Many factors affect individual aging and there is a large heterogeneity between individuals. Social, economic, physiological and psychological changes with aging have effects on eating patterns and nutritional status.

Good nutrition and physical activity are health promoting lifestyle approaches in the elderly population. An inadequate nutrition contributes to sarcopenia, frailty, loss of functions and the progression of diseases in elderly people. Nutritional status is influenced by medical, physiological, psychological and social variables. Encouraging better nutrition and physical exercise is a cost effective way of decreasing progression of age related diseases (Morley, 2011). As people age, adequate nutrition promotes the maintenance of health, physical performance and psycho-social well-being (Bates et al, 2011).

Malnutrition has been recognized as a common problem among aged residents living in institutional care facilities. It is associated with certain diseases and impaired functioning, but less is known about its relationship with nutrition intake and nutritional care among aged residents (Milne et al, 2011). The assessment of the nutritional status of elderly people should be part of their care (Cowan et al, 2011). There are many tools for identifying the nutritional risks, but the most extensively evaluated tool is the Mini Nutritional Assessment -test (MNA) according to Hamirudin, Charlton, Walton (2016). Furthermore in addition, Malnutrition Universal Screening Tool (MUST) was originally designed for residential and community settings, however, it has now been validated in the acute setting, allowing screening to occur across the continuum of care (BPAC, 2011).

Nutritional advice for elderly residents and patients should focus on weight maintenance. Not all elderly individuals are the same with regard to appropriate nutritional interventions, however. The intervention for healthy elderly people should differ from those who are frail, from those with dementia, and from those who are at the end of their lives (Morley, 2011).

BACKGROUND

Indonesia has contributed significantly to the accelerated growth of the elderly population worldwide. Globally, Indonesia has the fifth-largest elderly population in the world. In 2012, there were nearly 21 million older people. Life expectancy has increased dramatically, from 45 in 1970 to 69.2 for males and 71 for women in 2010. At the same time, the birth rate has declined, resulting in an ageing population. It is estimated that by the year 2020, aging population in Indonesia will reach 11.34 per cent of total population. Moreover, the UN has predicted that the percentage of Indonesians over 60 years old will reach 25 percent in 2050 or nearly 74 million elderly people. Several provinces have a greater number of elderly people than the national average, and Yogyakarta has the nation's largest elderly population (Nasir, 2015).

For the past three decades, Indonesia has made significant progress in economic and human development, which has resulted in better health conditions and longer life expectancy, creating a growing population of older people. Population aging should be seen as a direct result of successes in development programs such as nutrition among elderly.

METHODS

Population, Sample and Sampling Technique

This study was conducted in work area of Bambanglipuro Public Health Facility, Bantul, Yogyakarta, Indonesia. Population in this study are the trained health workers in Bambanglipuro and the significant others of the elderly from the said area. There were 50 of trained health worker respondents who met the criteria inclusion. The criteria inclusion of trained health worker are:

1. Man or woman \geq 30 years old, chosen by the community and trained by Professional Health Care to deal with health problems of individuals and society, as well as working in a place that is close to the delivery of health services.
2. Was able to assess nutritional status to elderly
3. Originally living in the study area and available during data collection
4. Willing to be respondent in the study

The researcher used retrospective design based from the identification of respondents from historical data that available in Bambanglipuro Public Health Facility. The elderly who seek consultation with their significant other in Bambanglipuro Public Health Care Facility from the period of January to February are 183. Researcher used Slovin's formula to minimize samples and got 126 samples. During data collection, there were 112 significant other respondents who met the inclusion criteria.

The inclusion criteria, which are:

1. Significant other (a person whose close relationship with the elderly affects that individual's behavior and attitudes. Usually a family member, spouse, child, employer, coworker, friend, who serves as a role model or whose acceptance and approval is sought).
2. Originally living in the study area and available during data collection
3. Willing to be a respondent in the study.
4. Do not have a hearing problem or any cognitive problem.
5. Can communicate verbally.

RESEARCH INSTRUMENT

Data collection in this study used a questionnaire as a tool. A Nutritional Health Care Practices questionnaire is adopted from Mini Nutritional Assessment (MNA) by Nestlé Nutrition Institute retrieved on 2017 from <http://www.mna-elderly.com/>. Some modifications were done by the researcher specifically in nutritional assessment categories, there were sentence modification and additional questions in nutritional screening about assessing of physical problems of the patient also in nutritional assessment about assessing the economical of the patient to buy food that they need. Researcher already sent a letter for asking permission to use the MNA as a tool, and got a response letter already. The Nutritional Health Care Practices questionnaire consists of 21 questions (Nutritional screening 6 items, Nutritional assessment 10 items and Nutritional indication score 5 items). The researcher used Five-point Likert's scale for the response of the respondents of the Nutritional Health Care Practices (1=never to 5=always).

Summary

The assessment of the trained health worker respondents on nutritional condition of the elderly with their corresponding weighted mean and verbal interpretations are follows: nutritional screening overall mean was 3.59 interpreted as often, nutritional assessment overall mean was 3.58 interpreted as often, nutritional indicator score overall mean was 3.19 interpreted as often.

The assessment of the significant other respondents on the nutritional condition of the elderly with their corresponding weighted mean and verbal interpretations are follows: nutritional screening overall mean was 3.19 interpreted as sometimes, nutritional assessment, overall mean was 3.07 interpreted as sometimes, nutritional indicator score, overall mean was 2.66 interpreted as sometimes.

Table 1. Summary of T-Test Values on the Significant Difference between the Assessment of the Trained Health Worker Respondents and the Assessment of the Significant Other Respondents on the Nutritional Condition of the Elderly

Areas	Computed t	T value	level of Significant	Decision
I. Nutritional Screening	1.168362	1.96	5%	Accept Ho
II. Nutritional Assessment	1.738821	1.96	5%	Accept Ho
III. Nutritional Indicator Score	0.535706	1.96	5%	Accept Ho

The significant difference between the assessment of the trained health worker respondents and the significant other respondents on the nutritional condition of the elderly based on the T-test statistical treatment with a 0.05 was found that in term of nutritional screening got computed t of 1.168362, in term of nutritional assessment got computed t of 1.738821, in term of nutritional indicator score got computed t of 0.535706. All the computed t values was less than T values of 1.96. This result shows that the null hypothesis are accepted, meaning there is no significant difference between the assessment of the trained health worker respondents and the significant other respondents on the nutritional condition of the elderly. It proved that the significant other were completely know about nutritional condition of the elderly.

Based from the results of this study, the inputs for an action plan was proposed.

CONCLUSIONS

Based on this study findings, the following conclusions were derived:

1. The assessment of the trained health worker respondents on nutritional condition of the elderly, in terms of: nutritional screening and nutritional assessment are good, but for nutritional indicator score is fair.
2. The assessment of the significant other respondents on the nutritional condition of the elderly, in terms of: nutritional screening; nutritional assessment; nutritional indicator score are fair.
3. There is no significant difference between the assessment of the trained health worker respondents and the significant other respondents on the nutritional condition of the elderly.
4. Proposed action plan can be apply for enhancement of the nutritional condition of the elderly, such as: conduct a lecture related to the importance of assessing the physical problems of the patient, conduct a lecture related to the importance of assessing the patient's mode feeding, conduct a training workshop related how to measure Calf Circumference and Mid-arm Circumference (MAC).

RECOMMENDATIONS

1. Conduct a lecture related to the importance of assessing the physical problems of the patient (lecture topic: Physical Problem in Elderly) provided by professional health worker in Bambanglipuro Public Health Facility.
2. Conduct a lecture related to the importance of assessing the patient's mode feeding (lecture topic: Geriatric Swallowing and Feeding Assessment and Intervention) provided by professional health worker in Bambanglipuro Public Health Facility.
3. Conduct a training workshop related how to measure: Calf Circumference and Mid-arm Circumference (MAC) provided by professional health worker in Bambanglipuro Public Health Facility.
4. The future researcher can expand the variable of the study, specifically related to the nutritional health condition of the elderly.

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