



Faculty of Medicine and Health Sciences

**HEALTH STATUS OF ELDERLY BIDAYUH IN SINGHAI, BAU
DISTRICT, SARAWAK**

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ABSTRACT

Ageing is said to be associated with decrease functional ability and also high prevalence of chronic medical condition which may affect the health status of the elderly and their quality of life. This quantitative research is a descriptive study aimed to assess the health status and also the factors that influenced self-rated health of elderly Bidayuh living in Kampung Bobak and Kampung Sagah, in Singhai zone, Bau. By using the purposive sampling method, a number of 60 elderly aged 60 years and above were included in the study. Data was collected using a questionnaire-guided interview method conducted at each respondent's home. The questionnaire included the socio-demographic profile, modified Barthel Index to measure the functional status, self-reported medical condition and also a single-item question on self-rated health. Respondents aged from 60 to 96 years old were involved in this study and the mean age was 71.77 ± 7.06 . In terms of socio-demographic characteristics, age ($p=0.016$), education level ($p=0.001$), income sources ($p=0.019$) and living arrangement ($p=0.003$) were identified to have significant relationship with self-rated health of the elderly. Functional status and self-reported medical condition were also found to be significantly associated with poor self-rating health status among the Bidayuh elderly. In conclusion, how the elderly rate their current health status is highly influenced by the socio-demographic characteristics, functional status and also the number of medical condition that the elderly experienced at a time. Age, level of education, ability to transfer from bed to chair, mobility on level surface, uses of stairs, and also presence of medical condition such as Diabetes mellitus, vision

problem, chewing problem and arthritis or joint pain are factors to be emphasized when assessing the health status of the elderly.

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INTRODUCTION

Ageing is a progressive state which is a dynamic biological reality, largely beyond human control. It is a process that everyone will and has to experience. Ageing is also associated with our understanding that older people is more vulnerable to have problem with the various function of the body and to develop chronic diseases due to decline in physical and possibly mental functioning. Although people are living longer, they are living with more chronic health conditions and disabilities (Zimmer & Chappell, 1994; cited in Mathieson, Kronenfeld & Keith, 2002; Sidik, 2002; & Mafauzy, 2000).

Changes in the average of life expectancy at birth between 2005 and 2007 has shown an increase in number whereby for women it is from 76.2 years old to 76.5 years old whereas for men from 71.4 years old to 71.7 years old (Department of Statistics, Malaysia, 2009). This is a clear indication that Malaysia is experiencing demographic transition. Such a demographic trend which leads to ageing of population brings with it many issues and challenges and is a matter of great concern for the health sector as Sidik, Rampal, & Afifi, 2004 has mentioned that compared with the non-elderly, the elderly on the whole are less healthy since increasing age is associated with higher morbidity and higher use of health facility.

The ageing of the world's population is a global phenomenon with extensive economic and social consequences since the proportion of older people aged over 60 years is growing at a faster rate compared to other age group in almost every country (WHO, 2009). The projection of the older people in the population world widely is estimated to increase from 600 million in 2000 to 1.2 billion in 2050 as the result of low mortality, increase life expectancy, declining fertility rate including improved in health care sector and advancement in technologies (WHO, 2008). These factors have also affected the number of older people in Malaysia which is growing at a faster rate than the total population over the past 50 years (Sharifah Norazizan Syed Abd Rashid, 2007).

World Health Organization (2009) defined health as “state of complete physical, mental, and social well-being, not merely the absence of disease and infirmity.” As being said that growing old is associated with vulnerability of having multiple chronic diseases, health is not merely the absence of disease and infirmity as for elderly chronic diseases have become part of their life as they aged. Due to this factor, the elderly may have own definition on how they rate their own health.

Problem statement:

Sherina (2002) has mentioned that increasing age is associated with an increase risk to disease and lessening adaptability. According to her again, a study on functional status in Malaysia found that functional disabilities are significantly associated with age whereby the result shows that the proportion of elderly who were able to perform all the activities of daily living (ADLs) decrease with age.

The increasing aging population and also longer life expectancy on the state plans for economic development may require Malaysian government to made critical decisions in confronting with this challenge. The increase is sufficient reason to warrant close monitoring of health care needs of this population. The challenge is to maintain healthy older population of people who can lead independent lives so that they can enjoy and satisfy with their quality of life. Mafauzy (2000) stated that ageing is not a disease and that an early intervention treatment can prevent disability. Improving the health of older people living in Malaysia requires an initial assessment of their health status which can provide information in planning the appropriate interventions and health program. The main aim in the care of the elderly is to maintain the quality of life which can contribute to better self-rating health.

Individuals can define health in relation to their expectations and to their “optimum level of functioning in everyday living” (Roper, Logan & Tiemey, 1985, p.6; cited in Siop, 2003). From this statement, Mathieson, K. M., Kronenfeld, J. J. & Keith, V. M.

(2002) has mentioned in their study that more research is needed to increase our understanding of patterns of functional-adaptation use since the knowledge about these patterns can help to plan interventions and education aimed at increasing functional ability and independence among elderly people which can increase their level of health status.

As prevalence of chronic medical condition and decrease functional status are common among the elderly which can affect the health status of the elderly, this study was undertaken to assess the health status of elderly and to determine the association between chronic medical condition, functional status of the elderly and also other factors with health status of the elderly.

Significance of Study

By conducting this study, functional status and also factors that influence health status of elderly can be determined. Findings of this study can provide useful information for interventions and implementation of the appropriate health care program for the elderly especially in the population studied. This information later may bring implications in nursing practice especially for nurses who are specialized in gerontology and also in current health policy since it provide information regarding the level of health status.

Purpose of study

This study was conducted to assess the health status of the elderly Bidayuh which was personally rated by themselves through self-rated health question. Besides that, the socio-demographic profiles, functional status and medical conditions that they experienced at a time were also identified in order to examine the significant relationships between these factors with self-rated health of elderly.

Research Questions

- a. What is the health status of elderly Bidayuh living in the village in Singhai, Bau District, Sarawak?
- b. What is the functional status of elderly Bidayuh?
- c. What are the factors that influence the health status of the elderly?
- d. What is the relationship between self-rated health and functional status of the elderly?

RESEARCH OBJECTIVES

General objectives

-This study generally aims to assess the health status of elderly living in the villages in Singhai, Bau District.

Specific objectives

This study specifically aims:

- a. To assess the health status of the elderly.
- b. To assess the functional status of the elderly.
- c. To examine the factors that influences the health status of elderly.
- d. To examine the relationship between self-rated health and functional status of the elderly.

Operational definition of key terms

Elderly:

Those people aged 60 years and above is considered as older people who has participated this study.

Self-rated health:

The respondents rating their current health status by rating it according to the health status rating scale.

Functional status:

In this study, functional status which is the ability of an individual to perform basic activities of daily living (ADLs) was measured using The Modified Barthel Index.

LITERATURE REVIEW

A few literatures about health status of elderly done in various setting in different countries have been searched via the internet network and reviewed in order to get the framework of the research study. Summary of each of the literatures reviewed which conclude the points on health status is explained separately according to the literatures itself.

A study was done by c. Agyemang, Denktas, Bruijnzeels, and Foets (2006) to assess the validity of the single-item question on self-rated health status in first generation Turkish and Moroccans versus native Dutch in the Netherlands. Questionnaire included self-rated health question, chronic conditions and socio-economic status (educational level, household income and living arrangement) were asked during face to face interview for data collection. The results shows significant interactions between ethnicity and chronic illnesses on fair health and poor health, independent of socio-demographical factors. These findings suggest that the meaning that the elderly associate with their health status differ between these ethnic groups and that researchers need to be cautious about the interpretation of self-rated health ratings when comparing different ethnic groups. Therefore, different ethnic may have different finding whereby this study may represent the Bidayuh ethnicity.

Orfila, Ferrer, Lamarca and Alonso (2000) have studied the evolution of self-rated health status in the elderly through comparison of cross-sectional and longitudinal estimates by interviewing a total of 1632 respondents aged 65 years and older. The aim of this study is to assess self-reported health status evolution and to illustrate the need of longitudinal data to properly estimate age-related changes in reported health status. Estimates of change in perceived health status were measured based on differences between individuals (cross-sectional) and within individuals (longitudinal) approach. Results from this study shows that comorbidity and no education were associated with a decline in health status as the elderly get older. Based on this finding, my study was done to assess the association between the number of illness that the elderly have and how they rate their health status.

Ford, Spallek and Dobson (2007) has done a study on the use of SRH question to test the hypothesis that morbidity and health related behavioral factors (eg: smoking status, level of physical activity, alcohol consumption and body mass index) are stronger than social factors (eg: age, marital status, living arrangement and educational level) as predictors of death among older women. The results conclude that among elderly women, current health status and health related behaviors are stronger predictors than social factors of relatively early mortality. Therefore, in my study the findings between gender is compared to see if there is any difference.

Okamoto and Tanaka (2004) have done a study on gender differences in the relationship between social support and subjective health among elderly persons in Japan. Health status was considered by a measure of subjective health which was assessed based on the response for the self-rated health question. Results suggest that social support may be a beneficial promoter of subjective health in men than in women as it would influenced how they would rate their own health status.

Kanagae, Abe, Honda, Takamura, Kusano, Takemoto and Aoyagi (2006) has studied about determinants of self-rated health among community-dwelling women aged 40 years and over in Japan. Findings from this study shows that the proportion of women with poor self-rated health increased with age. Lower physical activity and a greater number of comorbidities were also associated with poor self-rated health as the age increased.

Cesari, Onder, Zamboni, Manini, Shorr, Russo et al (2008) has been studied the relationship between physical function measures with the self-rated health measure in the prediction of negative health-related events in older persons, including mortality. The aim of this study is to compare the predictive value for mortality of measures of physical function and self-rated health status, and test their possible interactions. The result of this study shows that there is no significant interaction was reported between physical function measures and self rated health. Similarly to physical function

measures, self-rated health (SRH) has been shown to significantly predict negative outcomes (including disability and mortality). The relationship between SRH and mortality has recently been shown to be not influenced by several potential confounders, including physical function.

Wilhelmson, Andersson, Waern, & Allebeck (2005) has conducted a study to examine the elderly people's perspectives on quality of life. The aim of this study was to investigate what older people consider to be important for their quality of life, and to explore the impact of gender, education and health status on individual perception. Findings from this study shows that functional ability was the most important factor, followed by physical health, social relations and being able to continue to live in one's present home. It is conclude by the researchers that social relations, functional ability and activities influence the quality of life of elderly people as much as their health status.

Summary of Literature Review:

Based on the literature review, there were many studies and researchers have been using the application of functional status measurement and self-reported health status in order to aid in the process of assessing the level of health status of the elderly. From the reviewed literatures, the health status of older people may be influenced by various factors such as age, gender, economic status, functional status, number of

comorbidities and also ethnicity. Therefore, based on these findings it can be predict that health status of elderly Bidayuh may varies according to them individually due to the influence of many factors.

METHODOLOGY

Introduction

This section describes the process of this study which consists of the research design, setting, population and sampling, ethical consideration, data collection, pilot study, instruments used (questionnaire), and data analysis.

a. Research Design

This cross-sectional study was conducted using a quantitative approach to examine the health status of elderly and the factors that influence the health status of elderly as well as examining the relationship between their self-rated health and functional status.

b. Setting

This study was conducted in a semi-urban area of Singhai zone in Bau. Singhai is one of 4 zones in Bau District. Singhai zone is a semi-urban area whereby it is located 23km from Kuching city and 22km from Bau town. There are 6 main villages in Singhai zone which are further divided into small villages. Singhai zone was chosen for conducting this study most importantly because the population in this zone is dominated by Bidayuh community as this study aimed to assess the health status of the Bidayuh elderly in Bau District. Besides that, another criterion which has influenced the researcher in selecting this area specifically Kampung Bobak and

Kampung Sagah was due to easy accessibility and also familiarity with the area which aid in the process of data collection.

c. Population and Sampling

Purposive sampling method was used in selecting the respondents in this study whereby two out of six villages in Singhai zone were selected. A total of 60 respondents specifically from 2 villages namely Kampung Bobak and Kampung Sagah were involved in this study. All elderly with Bidayuh ethnicity aged 60 years and above who were mentally and physically stable available in the area were included in the study. Those with difficulty in communication and who refused to participate in the study were excluded. The elderly respondents were identified with the help of the Ketua Kampung (head of village) in the community. As a semi-urban area, both of these villages is well accommodated with infrastructures in which both of these village has their own primary school, church, football field, community hall, as well as asphalted road and also well equipped with clean water and electrical supply. There are also a few grocery shops, a bus station at the junction to enter each village, and the telecommunication network is also good and available in both villages. According to the census given by the head of the villagers, the populations in Kampung Bobak are about 320 peoples and most of them are working as labor where as the populations in Kampung Sagah are there are nearly 500 peoples. The numbers of elderly in Kampung Bobak are 48 persons and in Kampung Sagah there are 55 persons. The 'Klinik Desa' which serves the local population is staffed by an

Assistant Medical Officer and a community nurse were located at the nearby village roughly 6km from Kampung Sagah and 7km from Kampung Bobak.

d. Ethical consideration

Ethical clearance was obtained first from the Research Ethics Committee of Faculty of Medicine and Health Sciences before proceeding with this study (Refer to Appendix 1) An official letter acquiring permission to conduct the study in the village (Refer to Appendix III), and the ethical approval letter from the Research Ethics Committee of FMHS was shown to the head of village prior to data collection. All the questionnaire were also enclosed together with the information about the researcher, the explanation on the purpose of the study, the explanation about the confidentiality of the respondent's information and also the respondent's consent. While doing a verbal informed consent from each of the respondents, they were also informed that they are allowed to withdraw from the study at any time as they wish.

e. Data collection

The data collection was done in August 2009. Data was collected using a questionnaire-guided interview method conducted at each respondent's home based on the set of questionnaire (refer to example of questionnaire at Appendix V) and their responses were recorded. Researcher went from house to house in Kampung Bobak and Kampung Sagah in Singhai zone for collection of data. A set of questionnaire was given to the respondents for those who are able to read. For those

who were unable to read, the questionnaire was read for the respondent and their answer was recorded.

f. Pilot study

A pre-test study was done involving 15 respondents (older people, aged 60 years and above which were from the nearby village other than Kampung Bobak and Kampung Sagah) before the real data collections were conducted to determine the reliability of the questionnaires and to assess the level of comprehension of the respondents. Minor changes were made to the final instrument. Reliability analysis on the Modified Barthel Index showed that this scale was highly reliable (Cronbach's $\alpha = 1.000$) to measure the functional status of the elderly. The respondents who have participated in the pre-test were excluded from the total of the real sample.

g. Instruments

The structured questionnaires consisted of four sections. Section A consists of questions on socio-demographic profile. Section B consists of the Modified Barthel Index Scale which served as a tool to assess the functional status of the respondents. Section C consisted the checklist of self-reported medical condition and Section D is the single-item question on the self-rated health to assess the health status of the respondents. A detailed description on each section of the questionnaire is explained in the following paragraph. All the questionnaires were written in English language and also Bahasa Melayu. A copy of the questionnaire is available in Appendix V.

Section A: Socio-demographic profile

This section comprised of questions on age, gender, marital status, educational background, monthly household income, sources of income, occupational status, and living arrangement. Due to the multiple responses given by the respondent in a few items namely age, level of education, monthly household income, sources of income, and work status the responses were further recoded into different group for analysis. For the age of the respondents, the age was classified into three categories namely 60-69 years old, 70-79 years old and 80 years old and above. For the monthly household income, after the minimum and maximum number of income was identified, the responses from the respondents were categorized into three groups which are \leq RM300, RM301-RM400 and \geq RM401. The responses for the work status of the respondents were also re-grouped into four commonest type of work status among the respondents namely retired, farmer, laborer and grocery shop owner. As for the sources of income, the responses given by the respondents were further classified into 6 categories which were income from pension, children, small business, pension and children, children and business and lastly income from pension, children and small business. In order to examine the relationship between the sources of income and self-rated health, the multiple sources of income were grouped into one category as combinations of sources of income.

Functional status:

The modified Barthel Index of ADL was used to assess the functional status of the respondents. A reliability test was run for this scale with the result of Cronbach- α

0.747 which shows high reliability for this scale to be used. Based on this index, respondents were required to indicate the degree of their ability and difficulty that they experience while performing the basic activities of daily living (i.e. feeding, bathing, dressing, bowel control, bladder control, grooming, toileting, transferring from chair to bed and return, mobility on level surface and lastly uses of stairs). The available responses for this scale are either independent, need help/ assistant or dependent. The respondents' functional status was coded based on the criteria explained below:

Feeding

- 1= Independent; respondent is able to feed himself/ herself independently without any assistance to cut the food, to use the salt or sauce and to feed him/herself.
- 2= Need help assistance; respondent need help from others to cut the food, to add in seasoning (eg: salt or pepper) etc.
- 3= Dependent; respondent unable to feed himself/ herself independently or require full assistance from other people to feed him/ her.

Bathing

- 1 = Independent; respondent able to do all steps involved without the presence of others.
- 2 = Need help assistance; respondent need assistance in bathing only one part of the body (such as back or leg) or need helps in certain steps (such as rinsing process or wipe off water from the body)