

General Practitioners' Perspective towards Healthy Ageing In Indonesia

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ABSTRACT

Background: The rapid ageing population among older adults from 2020 to 2040 has led to an emerging focus as this group begins to experience ageing and has a higher risk of having chronic illness of non-communicable diseases. Therefore, it is important to provide General Practitioners (GPs) with adequate knowledge and attitude of healthy ageing to ensure the quality of health service among older adults.

Objectives: To identify the perspective of general practitioners including the knowledge, attitude and practice towards adult health and nutrition to support healthy ageing in Indonesia.

Methods: An online survey was conducted among 100 general practitioners registered at the Indonesian Medical Council (KKI) and domiciled in the Greater Jakarta area and outside the Jabodetabek area. The sample recruitment process was carried out using the Alomedika online application. All data were analyzed using SPSS software.

Results: Almost all (92%) of respondents who took this survey had a supportive attitude in providing additional nutrition to adults to support healthy ageing. About 76% of the respondents did so by recommending milk. However, in terms of knowledge, around 67% of the respondents showed inadequate results, especially about physiological changes that occurred in adults. There is no statistically significant difference between respondents' demographic characteristics and all perspectives measured in this study (i.e., knowledge, attitude and practice)

Conclusions: The study indicates that it is important to educate general practitioners about the healthy aging process in order to maintain general practitioners' attitudes and behavior in health services to support the success of achieving healthy aging in Indonesia.

Keywords: health ageing, nutrition, perspective, General Practitioner, Indonesia

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INTRODUCTION

The Indonesia population aged 60 years or over is estimated to increase from 10.1% in 2020 to 18% of the total population in 2040, while the current pre-senior (45-50 years) population in 2020 to 2040 will increase from 10.1% to 17.5%¹The life expectancy and the number of the elderly population have increased dramatically, resulting in an populous ageing population, with middle-aged adult between 45-60 years old experience in the signs of ageing. The expected growth in the ageing population in Indonesia meets a challenge to health care system. Currently, the health care system focuses on the most prevalent public health problems such as stunting and anaemia among pregnant mothers with prevalence of 30.8% and 48.9%, and high cases of non-communicable disease such as stroke (14.2%), heart disease (2.4%) and diabetes (3.88%) among older adults which have excessively contributed to national health insurance expenditure^{2,3} According to MOH, the limited of geriatric care unit in Indonesia has also become an issue³

Globally, the leading cause of death in adult and senior population is non-communicable disease, with

around 2/3 of mortality cases caused by hypertension, anemia, diabetes mellitus, heart disease, arthritis and stroke⁴ Basic health research 2018 shows that common chronic conditions in senior adults (45-54 years old) are hypertension, diabetes mellitus, heart disease and stroke with prevalence of 45.32%, 3.88%, 2.4% and 14.2%, respectively. Besides, diabetes and hypertension are increasing approximate about 0.58% and 9.72% compared to year 2013.^{5,6} Furthermore, nutrition related problem such as overweight (16.2%) and obese (26%) among adults (50- 54 years old) have also become major problems that contribute to the increasing cases of non-communicable disease.^{2,4}

According to the 2014 total diet study, the proportion of older adults (>55 years old) with energy intake below 70% RDA is 44.6%, with low protein intake (45.8%) and particularly from the plant-based source only. In addition, inadequate fibre intake (below RDA) is observed in 90% of the adult population.⁷ Moreover, the senior adults have suffered micronutrient deficiencies due to the lack of fruits and vegetable intake. The high intake of energy-dense food, saturated fat, low intake of fruit and vegetables have caused an increased risk of



chronic illness in the adult population.^{8,9} Older adults are more likely to have physical inactivity due to muscle and bone mass decreased. The lack of physical activity has been associated with obesity, diabetes, hypertension and heart disease.¹⁰ Poor diet and lack of physical activity lead to an increased prevalence of chronic conditions among elderly population.^{9,10}

According to WHO, healthy ageing is defined as the process of developing and maintaining physical, social, and mental health that enables well-being in older age, in order to improve the quality of life through the ageing period. Every older adult should be encouraged to have a long and healthy life, including access to quality health and social care.¹¹ With an understanding on the importance of healthy ageing, older peoples' health will soon become an emerging focus as this group begins to experience ageing and has a higher risk of having chronic illness from non-communicable diseases, as well as due to their need for health services.¹¹

General practitioners (GPs) is one of the first line health care practitioner in Indonesia who interact and provide health service to adult population in community basis. Numerous studies have showed that GP plays important and critical role in providing and maintaining the quality of health care service in primary level, especially the government-led health initiatives.¹² A rapid ageing population has increased the demand for health services which are closer to home or primary health care (e.g. posyandu lansia), that requires GPs who are skilled and are able to manage older adults with complex health problems.^{13,14} Attitudes and perspectives of GPs will influence their interventions.^{13,14,15} However, the recent review has reported the less interest among medical doctors and students in caring for older people. Besides, some previous studies have showed that the knowledge-based interventions are not successful in improving attitudes of health professionals towards older people.^{15,16} There are only few studies which have investigated the knowledge and attitudes of GPs regarding healthy ageing in Indonesia. Therefore, this survey aims to identify the perspective of general practitioners, especially in terms of knowledge, attitude and practice towards adult health and nutrition to support healthy ageing in Indonesia.

METHODS

The cross-sectional study was conducted by applying an online survey among all General Practitioners (GP) between October to November 2020 based on the GPs database provided by medical-technology provider (Alomedika). The inclusion criteria were the certified GPs according to the Indonesia Medical Council (Konsil Kedokteran Indonesia (KKI)) registered database, who agreed to participate in the survey by signing in the informed consent, and agreed to complete the survey. A

completed response rate was achieved resulting in a sample of 100 out of 102 GPs who enrolled the survey. Furthermore, the questionnaire was created using Survey Monkey online platform, and was distributed through email with informed consent form. The ethical clearance letter was obtained from the Faculty of Medicine of Atma Jaya University (18/10/KEP-FKIKUJ/2020).

The questionnaire consisted of 15 multiple choice questions about the knowledge, attitude and practice of GPs toward healthy aging, mobility and the role of nutrition intervention based on the modified questionnaire from the previous studies.^{17,18,19} For the knowledge questions, the incorrect answer was given a 0 point, while the correct answer was given 1 point. The total scores were regarded as adequate if it was above 60%, meaning that the GPs were having adequate knowledge. Meanwhile, if the total scores were below 60%, the GPs were regarded of having inadequate knowledge. On the other hand, the total scores of attitude and practice were categorized as endorsed and neutral level of attitude regarding to the GPs answers (60% or more of answers were considered endorsement).¹⁸ the data were analyzed using SPSS version 23. The chi-square test was employed to analyze cross-tabulated data for bivariate analysis and linear regression model for multivariate analysis with all outcome variables taken at the 5% significance level ($p < 0.05$).

RESULTS AND DISCUSSION

One hundred GPs who had participated in the survey consist of 50% from Jakarta, Bogor, Depok, Tangerang and Bekasi (Jabodetabek) and 50% from outside Jabodetabek. As shown in **Table 1**, the majority of respondents are aged less than 40 years old. Furthermore, most of them have less than 10 years length of clinical services and are affiliated in private hospital or clinics.

As shown in **Table 2** the majority of respondents have partial knowledge on topic related to physiological changes in healthy ageing and essential nutrients to maximize healthy ageing.

Regarding the attitude towards Adult Nutrition Intervention, most of the respondents have positive attitude towards adult nutrition intervention as seen in **Table 3**. This includes the importance of being healthy in older age, adequate nutrition intake to adult, nutrition intervention required by adult and herbal consumption as alternative treatment.

Moreover, nutrition intervention is recommended to adult by almost all respondents during their practice, while milk consumption is their majority recommendation to be given to adult patients with details that can be seen in **Table 4**.



Table 1. Demographic Characteristic of The Respondents

Variables	General practitioner N = 100	
	n	%
Age of respondents		
≤ 40 years old	93	93
> 40 years old	7	7
Length of Practice		
≤ 10 years	85	85
> 10 years	15	15
Domicile		
Jabodetabek	50	50
Non Jabodetabek	50	50
Affiliation		
Government hospital	30	30
Private hospital / Clinic	70	70

Table 2. Descriptive result of GPs Knowledge towards Healthy Ageing

Knowledge Questions	Complete Right Answers N = 100		Incomplete Right Answers N = 100	
	n	%	n	%
Physiological changes in healthy ageing	4	4	96	96
Significant population increased aged 45-60 years old	68	68	32	32
Impact of unachieved healthy ageing	50	50	50	50
Factors that influence the healthy ageing	60	60	40	40
Five essential nutrients to maximize healthy ageing	32	32	68	68

Table 3. Descriptive result of GPs Attitude towards Healthy Ageing

Questions	Yes N = 100		No N = 100	
	n	%	n	%
Adult requires nutrition intervention	90	90	10	10
Adequate nutrition can support adult health status in the future (e.g. reduce health care cost)	95	95	5	5
Herbal consumption is an alternative health treatment	66	66	34	34
Healthy ageing is important in the older age	100	100	-	-

Table 4. Descriptive result of GPs Practice of Adult Nutrition Intervention

Questions	Yes N = 100		No N = 100	
	n	%	n	%
Recommendation for adult nutrition intervention	88	88	12	12
Recommendation for milk consumption among adults age 45-65 years old	84	84	16	16



Table 5. Overview of Knowledge, Attitude and Practice on Adult Nutrition Intervention among General Practitioner

Variables	General Practitioners N = 100	
	N	%
Knowledge		
Adequate	33	33
Inadequate	67	67
Attitude toward adult nutrition intervention		
Endorsed	92	92
Neutral	8	8
Practice of adult nutrition intervention		
Endorsed	76	76
Neutral	24	24

Table 6. Multivariate Analysis of GP's Knowledge, Attitude and Practice of Healthy Ageing and Adult Nutrition Intervention Based on Demographic Characteristic

Variables	Knowledge towards Healthy Ageing				P	Attitude of Adult Nutrition Intervention				P	Practice of Adult Nutrition Intervention				P
	Adequate		Inadequate			Endorsed		Neutral			Endorsed		Neutral		
	N	%	N	%	N	%	N	%	n	%	n	%			
Age of respondents					1.000					0.453					0.672
≤ 40 years old	31	31	62	62		86	86	7	7		71	71	22	71	
> 40 years old	2	2	5	5		6	6	1	1		5	5	2	5	
Length of Practice					0.768					0.344					0.752
≤ 10 years	29	29	56	56		79	79	6	6		65	65	20	20	
> 10 years	4	4	11	11		13	13	2	2		11	11	4	4	
Domicile					0.135					0.715					0.815
Jabodetabek	20	20	30	30		47	47	3	3		37	37	13	13	
Non Jabodetabek	13	13	37	37		45	45	5	5		39	39	11	11	
Affiliation					0.675					0.694					0.364
Government hospital	9	9	21	21		27	27	3	3		21	21	9	9	
Private hospital / Clinic	24	24	46	46		65	65	5	5		55	55	15	15	

Majority of the respondents have inadequate knowledge toward adult nutrition intervention, which is indicated by GPs responses score below 60% correct answers. However almost all respondents show positive attitude and practice to endorse the nutrition intervention in adult.

From multivariate analysis, as seen in **Table 6**, there is no statistically significant difference between respondents' demographic characteristics and all perspectives measured in this study (i.e. knowledge, attitude and practice). On the other hand, those who are domiciled in Jabodetabek tend to have higher level of knowledge that can be one of considerations in designing follow up actions.

Adequate knowledge of health and nutrition might help to improve the quality of attitude and practice in order to educate and increase awareness of their adult patient towards adult nutrition in achieving healthy ageing. This is also supported by previous studies which have shown a significant relationship between nutrition and health ageing. Furthermore, older people with a good nutrition status can achieve healthy ageing.^{19,20,21}

Various studies have also shown that the lack of knowledge on ageing among health worker leads to improper attitude in healthy ageing preparation.^{14,15} The Findings of this study also confirm the particular matters. Endorsed attitude towards the recommendation of nutrition intervention in the form of



tablet/supplementation or dairy milk may support a person during his/her ageing process. As people are ageing, they are found to be weaker and easily attacked by infections or illness. From a previous study, it is found that ageing is associated with the decline of the immune system due to instability of gut microbiota and the produce of fewer T immune cells.²² Besides, their natural muscle loss due to the change of nervous system and the loss of muscle tissue.²³ Several studies have reported that milk consumption is associated with a lower risk of frailty and risk of dementia in older adult.^{24,25} On top of that, it is also well known that milk provides various important nutrients such as proteins, vitamins and minerals that have beneficial roles in maintaining bone health and various chronic diseases.²⁶ Protein in milk can improve muscle maintenance in adult, since the rate of protein synthesizes is decreased during ageing process.²³ As an excellent source of calcium and vitamin D, milk or dairy products is found to be linked with the reduction on osteoporosis and the cognitive decline rate among elderly people.^{27,28} Understanding all mentioned benefits above, it can be said that nutrition intervention is crucial in achieving healthy ageing.

Other aspects that can be found from the previous studies are older adults and elderly often experience physiological changes, e.g. low appetite that affects their nutritional intake. A previous study has noted that diet quality, as well as the amounts and types of food eaten over a prolonged period can lead to malnutrition in elderly and illness consequences, and are also related to health care costs.^{9,20} Drinking milk as a daily habit can boost the calories, proteins, vitamins and minerals that are essential for an adult's diet in preparing older age.^{24,25,26}

From the existing evidences, it is known that nutrition intervention can be beneficial to adult in order to maintain their immune and health. However, routine nutrition intervention as supplementation has not yet become a recommendation.²⁹ Knowing this fact, GPs can propose in identification of nutritional risk and the promotion of healthy dietary behaviours during the consultation. Furthermore, herbal supplement or tea which is used to support healthy ageing for thousands of years across the Asia region, is also used for traditional treatment and to cure various diseases. Some countries have considered traditional medicine as legal and safety, as well as a promising pharmacotherapy based on its efficacy in older people.^{30,31}

Even though there is no statistical significant difference among GPs' perspective on their knowledge, attitude and practice across their domicile area (Jabodetabek and non-Jabodetabek), this study shows that non-Jabodetabek GPs have lower knowledge level. This might be related to access of knowledge.^{32,33} Therefore, for further action in designing the education, further exploration is needed to ensure GPs in all area that can grasp the required knowledge on healthy ageing in order to support achieving healthy ageing in Indonesia population.

This study has limitation in terms of design. Since the study is conducted with online survey, the subjectivity of respondents may potentially interfere with the study's objective. In addition, there are challenges to identify

factors which influence the respondents in answering the given questions. Thus, more structured design and more respondents with varying domiciles are being recommended for further study which has similar interest with the aim of this study.

CONCLUSION

The rapid increase of ageing in Indonesia population has led to the importance of providing an essential strategy to improve the GPs knowledge, attitude and practice toward adult nutrition intervention. This can be carried out by providing them adequate knowledge. Opportunities for improvement are available for GPs through education which will also enable them to have a better contribution in achieving successful healthy ageing in Indonesia population.

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CONFLICT OF INTEREST AND FUNDING DISCLOSURE

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