

## Original Research Article

**Health Promoting Behaviours of the Elderly in Myanmar**Khin Thandar Aung<sup>1</sup>, Cho Mar Win<sup>2</sup>, Aye Aye Maw<sup>3</sup>, Htet Htet Naing<sup>3</sup><sup>1</sup>Head/ Lecturer, Critical care nursing Department, Faculty of Nursing, International Islamic University, Malaysia<sup>2</sup>Assistant Lecturer, Mental Health nursing Department, University of Nursing, Mandalay, Myanmar<sup>3</sup>Staff Nurse, 1000 Bedded General Hospital, Nay Pyi Taw, Myanmar**\*Corresponding author**

Khin Thandar Aung

Email: [khin\\_ta@ijum.edu.my](mailto:khin_ta@ijum.edu.my)

**Abstract:** Aging is a lifelong and inevitable process. As a human being, every person wants to have a long life. With the aim to promote active and healthy ageing, the Ministry of Health implemented the elderly health care project in Myanmar since 1992-1993. This programme is based on comprehensive health care; promotion, preventive, curative and rehabilitative care. Elderly health care programme has been implemented in 161 townships by the end of year 2013 but nationwide is not yet. Nurses in Myanmar involve in the elderly health care project as a significant contribution to the health of elderly population. There is a little research that demonstrates effectiveness in quantifiable measuring health promotion practices in the elderly. There is a definite need for the elderly population to practice health promotion to improve the quality of life as their life span lengthens. This study will also encourage the nurses to better help the elderly to move to increase health promotion practices. That is why it is needed to investigate the health promoting behaviors of elderly people. This cross sectional descriptive study was done to assess health promoting behaviors of the elderly in the community. 69 elderly people aged 60 years and above including males and females who live in Chan Mya Thar Si Township, Mandalay was conducted. The Health Promoting Lifestyle Profile II (HPLP II) developed by Walker, Sechrist, and Pender (1995) was used as a research instrument and analyzed manually. The findings of this study revealed that there were 62% (n = 43) of the elderly had healthy behavior in nutrition and 38% (n = 26) of the elderly had unhealthy behavior in nutrition. Regarding physical activity, 33% (n = 23) of the elderly had healthy behavior and 67% (n = 46) had unhealthy behavior. In managing stress, the majority of participants 93% (n = 64) had healthy behavior and only 7% (n=5) were unhealthy in stress management. Concerning interpersonal relations, 59% (n = 64) were healthy and 41% (n = 28) were unhealthy. 38% (n = 25) of healthy behavior of the elderly and 64% (n = 44) of unhealthy behavior of the elderly in health responsibility, 78% (n = 54) of healthy behavior of the elderly and 22% (n = 15) of unhealthy behavior of the elderly in spiritual growth. Overall, there were 55% (n = 38) in healthy behavior and 45% (n = 31) in unhealthy behavior in this community. This quantitative study showed that the overall behavior in their community was healthier. According to this study, the areas which needed to investigate and improve in their physical activities and their taking health responsibility.

**Keywords:** health promoting behaviors, elderly, Myanmar

**INTRODUCTION**

The number of elderly population is increasing rapidly in most part of the world. The increasing number of elderly people is a concern for the quality of life. Therefore, there are many research studies concerning with elderly people from different points of views. Health behaviour and lifestyles are identified as the main factors affecting human health. Research shows that 45% of human diseases are related to personal behaviour and lifestyle and 60% of health is related to personal lifestyle. Bad lifestyle and behaviour are the pathogenic factors constituting 70% of the top

10 causes of diseases in the United States [9]. Adverse health behaviour and lifestyle affect all age groups such as obesity in teenagers, heart disease in adults, cerebrovascular disease, and malignant tumor and so on, but its influence on the elderly is significant. Older people represent a population highly at risk for chronic diseases and fall injuries. The elderly whose adverse health behaviour and lifestyle led to diseases or fall injuries represented more than half of the population [9]. Medical conditions that are mostly seen among elderly people in Myanmar are high blood pressure, chronic lung diseases, musculoskeletal problems, heart

diseases and diabetes mellitus. In addition to general health care, oral care, eye care and advice for fall prevention are also included in the services provided at elderly clinics since those are the common problems of the elderly. For being active and healthy, lifestyle modifications are also included in counseling the older people and are trained and encouraged to do regular physical exercises that are suitable for them [2].

In Myanmar, older people are supported mainly by their families. With the changing social and economic conditions, care for older people became the issue that goes beyond the respective family and health sector control. Therefore, the governmental organizations, including Ministry of Health and Ministry of Social Welfare, Relief and Resettlement, NGOs like Myanmar Maternal and Child Welfare Association and some INGOs like Help Age Korea are cooperating and collaborating for the comprehensive care of older people in Myanmar. With the aim to promote active and healthy ageing, the Ministry of Health implemented the elderly health care project in Myanmar since 1992-1993. This programme is based on comprehensive health care; promotive, preventive, curative and rehabilitative care. Elderly health care programme has been implemented in 161 townships by the end of year 2013 but nationwide is not yet [2]. Nurses in Myanmar involve in the elderly health care project as a significant contribution to the health of the elderly population. Most people have low consideration on active and healthy ageing concepts. Strengthening geriatric care is needed. Furthermore, continuous support is important for sustainability of elderly health care activities.

There is a little research that demonstrates effectiveness in quantifiable measuring health promotion practices in the elderly. There is a definite need for the elderly population to practice health promotion to improve the quality of life as their life span lengthens. This study will also encourage the nurses to better help the elderly to move to increased health promotion practices. That is why it is needed to investigate the health promoting behaviours of elderly people.

#### **MATERIALS AND METHOD**

A cross-sectional study design with convenience sampling method was conducted in Chan Mya Thar Si Township, Mandalay, Myanmar and 69 elderly people aged 60 years and above were included as participants. The Health Promoting Lifestyle Profile II (HPLP II) developed by Walker, Sechrist, and Pender was used to measure health promoting behaviours of the elderly [6]. The reliability of HPLP II is alpha reliability coefficient - 0.922 and an alpha coefficients for subscales are 0.702 – 0.904. HPLP II consists of six

subscales: nutrition, physical activity, stress management, interpersonal relations, health responsibility and spiritual growth which include 52 items using a 4-point response format from “never” (1 point) to “routinely” (4 points). There are 9 questions in nutrition, 8 questions in physical activity, 8 questions in stress management, 9 questions in interpersonal relations, 9 questions in health responsibility and 9 questions in spiritual growth, and all questions are positive statements. Data coding and scoring were done by manually. The scoring for behaviours were 4 for routinely, 3 for often, 2 for sometimes and 1 for never. After that, total score for each participant was calculated and changed into a percentage. And then, health promoting behaviours of participants was divided into two categories: healthy behaviours (total score greater than 146 and above, 60% and above) and unhealthy behaviours (total score less than 146, below 60%).

The ethical approval was taken from the Research Committee and Research Ethical Committee of University of Nursing Mandalay and authorized persons of Chan Mya Thar Si Township, Mandalay, Myanmar. The purpose and procedure about the study were explained to all participants and then informed consent form with Myanmar version was obtained from each subject before answering the questionnaires. Confidentiality and anonymity were ensured for each participant.

#### **RESULTS**

Most of the participants practiced health promoting behaviors regarding nutrition regularly. 89.9% of participants had breakfast regularly. However, 52.2 % of participants had never read labels to identify nutrients, fats, sodium content in packaged food before eating. Among 69 elderly people, 43 (62%) had healthy behaviours and 26 (38%) had unhealthy behaviours in health promotion regarding nutrition. The details were shown in table (1) and (2).

Health promoting behaviours regarding on physical activity of the elderly, most of the participants get exercise by performing usual daily activities (73.9%) but only (4.3%) checked their pulse rate when exercising. 23 out of 69 elderly people (33%) had healthy behaviours and 46 (67%) had unhealthy behaviours regarding physical activity. The details were shown in table (3) and (4).

Regarding Stress management, the majority of participants took some time for relaxation each day (91.3%). 64 elderly people (93%) had healthy behaviours and 5 elderly people (7%) had unhealthy behaviours. The details were shown in table (5) and (6).

**Table 1: Distribution of health promoting behaviours regarding nutrition of the elderly**

No.	Statement	Never		Sometimes		Often		Routinely	
		Number	Percentage	Number	Percentage	Number	Percentage	Number	Percentage
1.	Low cholesterol foods are chosen and eaten.	13	18.8%	10	14.5%	8	11.6%	38	55.1%
2.	I cut down on eating over sweetened foods.	11	15.9%	14	20.3%	13	18.8%	31	44.9%
3.	I eat rice, bread or cereals 6-11 times a day.	15	21.7%	31	44.9%	21	15.9%	12	17.4%
4.	I eat fruits 2-4 times a day.	5	7.2%	21	30.4%	15	21.7%	28	40.6%
5.	I eat vegetables 3-5 times a day.	6	8.7%	14	20.2%	18	26.1%	31	44.9%
6.	I eat milk or milk products 2-3 times a day.	23	33.3%	21	30.4%	9	13%	16	23.2%
7.	I eat one of these foods: meat, fish, beans or eggs only 2-3 times a day.	4	5.8%	9	13%	10	14.5%	46	66.7%
8.	I eat after reading labels to identify nutrients, fats, sodium content in package food.	36	52.2%	11	15.9%	5	7.2%	17	24.6%
9.	I have breakfast.	4	5.8%	-	-	3	4.3%	62	89.9%

**Table 2: Health promoting behaviours regarding nutrition of the elderly**

Health promoting behaviours	Frequency	Percentage
Healthy behaviour (≥ 60%)	43	62%
Unhealthy behaviour (< 60%)	26	38%
<b>Total</b>	<b>69</b>	<b>100%</b>

**Table 3: Distribution of health promoting behaviours regarding physical activity of the elderly**

No.	Statement	Never		Sometimes		Often		Routinely	
		Number	Percentage	Number	Percentage	Number	Percentage	Number	Percentage
1.	I follow a planned exercise program.	41	59.4%	6	8.7%	9	13%	13	18.8%
2.	I do physical exercises for 20 or more minutes at least three times a week such as warming exercise, brisk walking, cycling, aerobic dancing and going up and down the stairs.	18	26.1%	9	13%	11	15.9%	31	44.9%
3.	I do physical activity such as walking 30-40 minutes 5 or more times a week.	23	33.3%	7	10.2%	10	14.5%	29	42%
4.	I do recreational physical activities such as dancing, playing cane-ball, badminton and football.	43	62.3%	7	10.1%	7	10.1%	18	17.5%
5.	I do physical exercises at least 3 times per week.	23	33.3%	6	8.7%	12	17.4%	28	40.6%
6.	I get exercise by performing usual daily	7	10.1%	5	7.2%	6	8.7%	51	73.9%

	activities.								
7.	I check my pulse rate when exercising.	61	88.4%	2	2.9%	3	4.3%	3	4.3%
8.	I reach my target heart rate when exercising.	40	57.9%	9	13%	3	4.3%	17	24.6%

**Table 4: Health promoting behaviours regarding physical activity of the elderly**

Health promoting behaviours	Number	Percentage
Healthy behaviour (≥ 60%)	23	33 %
Unhealthy behaviour (< 60 %)	46	67%
<b>Total</b>	<b>69</b>	<b>100%</b>

**Table 5: Health promoting behaviours regarding stress management of the elderly**

No.	Statement	Never		Some times		Often		Routinely	
		Number	Percentage	Number	Percentage	Number	Percentage	Number	Percentage
1.	I sleep at least 5-7 hours daily.	2	2.9%	2	2.9%	4	5.8%	61	88.4%
2.	I take some time for relaxation each day.	4	5.8%	2	2.9%	-	-	63	91.3%
3.	I accept things which I cannot change in my life.	4	5.8%	9	13%	5	7.2%	51	73.9%
4.	I concentrate on pleasant thoughts at bedtime.	8	11.6%	8	11.6%	16	23.2%	37	53.6%
5.	I use specific methods such as watching television, reading book and conversation to control my stress.	6	8.7%	9	13%	9	13%	45	65.2%
6.	I balance time between work and pay.	9	13%	10	14.5%	6	8.7%	44	63.8%
7.	I do meditation for 15-20 minutes daily.	3	4.3%	5	7.2%	10	14.5%	51	73.9%
8.	I pace myself to prevent tiredness.	3	4.3%	1	1.4%	6	8.7%	59	85.5%

**Table 6: Health promoting behaviours regarding physical activity of the elderly**

Health promoting behaviours	Number	Percentage
Healthy behaviour (≥ 60%)	64	93 %
Unhealthy behaviour (< 60 %)	5	7%
<b>Total</b>	<b>69</b>	<b>100%</b>

Regarding interpersonal relationship, 76.8% of participants found easy to concern, love and warmth to others, however, 13% of participants got support from a network of caring people. Therefore, 41 out of 69 elderly people, (59%) had healthy behaviours and 28 elderly people (41%) had unhealthy behaviours. Table (7) and (8) showed in details.

Concerning health responsibility of health promotion behavior in elderly, half of the participants reported any unusual signs or symptoms to a physician or other health professional (50.7%). However, only 10.1% attended educational programs on personal health care. As a general, 25 elderly people (36%) had healthy behaviours and 44 elderly people (64%) had

unhealthy behaviours regarding health responsibility. It showed in table (9) and (10).

Concerning health promotion behavior in the spiritual growth of the elderly, 79.7% of the participants felt in content and at peace with themselves. 54 elderly people (78%) had healthy behaviours and 15 elderly people (22%) had unhealthy behaviours regarding spiritual growth. The details were shown in table (11) and (12).

Overall, the results were shown that about 55% of the elderly people had healthy behaviours and 45% of the elderly people had unhealthy behaviours. It was shown in table (13).

**Table 7: Health promoting behaviours regarding interpersonal relations of the elderly**

No.	Statement	Never		Some times		Often		Routinely	
		Number	Percentage	Number	Percentage	Number	Percentage	Number	Percentage
1.	I discuss my problems and concerns with people close to me.	14	20.3%	21	30.4%	16	23.2%	18	26.1%
2.	I praise other people at once for their achievements.	6	8.7%	7	10.1%	13	18.8%	43	62.3%
3.	I maintain meaningful and fulfilling relationships with others.	2	2.9%	6	8.7%	10	14.5%	51	73.9%
4.	I spend time with close friends.	20	29%	22	31.9%	15	21.7%	12	17.4%
5.	I find it easy to concern, love and warmth to others.	1	1.5%	9	13%	6	8.7%	53	76.8%
6.	I touch and am touched by people I care about.	5	7.2%	8	11.6%	8	11.6%	48	69.6%
7.	I find ways to meet my needs for intimacy.	12	17.4%	16	23.2%	15	22.7%	26	37.7%
8.	I get support from a network of caring people.	45	65.3%	10	14.5%	5	7.2%	9	13%
9.	I settle conflicts with other through discussion and compromise.	16	23.2%	14	20.3%	13	18.8%	26	37.7%

**Table 8: Health promoting behaviours regarding interpersonal relations of the elderly**

Health promoting behaviours	Number	Percentage
Healthy behaviour ( $\geq 60\%$ )	41	59 %
Unhealthy behaviour ( $< 60\%$ )	28	41%
<b>Total</b>	<b>69</b>	<b>100%</b>

**Table 9: Health promoting behaviours regarding health responsibility of the elderly**

No.	Statement	Never		Some times		Often		Routinely	
		Number	Percentage	Number	Percentage	Number	Percentage	Number	Percentage
1.	I report any unusual signs or symptoms to a physician or other health professional.	5	7.2%	17	24.6%	12	17.4%	35	50.7%
2.	I read or watch TV programs about improving my health.	20	29%	9	13%	13	18.8%	27	39.1%
3.	I questions health professionals (doctors, nurses and other health care providers) in order to understand their instructions.	13	18.8%	18	26.1%	6	8.7%	32	46.4%
4.	I get a second opinion when I question my health care provider's advice.	21	30.4%	16	23.2%	5	7.2%	27	39.1%
5.	I discuss my health concerns with health professionals.	13	18.8%	20	29%	11	15.9%	25	36.2%
6.	I inspect my body at least monthly for physical changes/danger signs.	34	49.3%	13	18.8%	8	11.6%	14	20.3%
7.	I ask for information from health professionals about how to take good care of myself.	26	37.7%	21	30.4%	3	4.3%	19	27.5%

8.	I attend educational programs on personal health care.	39	56.5%	18	26.1%	5	7.2%	7	10.1%
9.	I seek guidance or counseling when necessary.	11	15.9%	28	40.6%	7	10.1%	23	33.3%

**Table 10: Health promoting behaviours regarding interpersonal relations of the elderly**

Health promoting behaviours	Number	Percentage
Healthy behaviour (≥ 60%)	25	36 %
Unhealthy behaviour (< 60 %)	44	64%
<b>Total</b>	<b>69</b>	<b>100%</b>

**Table 11: Health promoting behaviours regarding spiritual growth of the elderly**

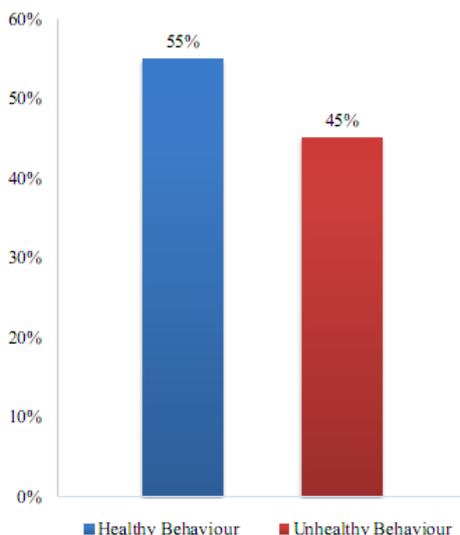
No.	Statement	Never		Sometimes		Often		Routinely	
		Number	Percentage	Number	Percentage	Number	Percentage	Number	Percentage
1.	I feel I am growing and changing in positive ways.	2	2.9%	4	5.8%	11	15.9%	52	75.4%
2.	I believe that my life has purpose.	6	8.7%	6	8.7%	7	10.1%	50	72.5%
3.	I look forward to the future.	11	15.9%	8	11.6%	6	8.7%	44	63.8%
4.	I feel content and at peace with myself.	3	4.4%	3	4.4%	8	11.5%	55	79.7%
5.	I work toward long-term goals in my life.	12	17.4%	6	8.7%	4	5.8%	47	68.1%
6.	I find each day interesting and challenging.	28	40.6%	15	21.7%	6	8.7%	20	29%
7.	I am aware of what is important to me in life.	2	2.9%	6	8.7%	15	21.7%	49	66.7%
8.	I feel connected with some force greater than myself.	17	24.6%	8	11.6%	7	10.1%	37	58.6%
9.	I expose myself to new experiences and challenges.	7	10.1%	18	26.1%	7	10.1%	37	53.6%

**Table 12: Health promoting behaviours regarding spiritual growth of the elderly**

Health promoting behaviours	Number	Percentage
Healthy behaviour (≥ 60%)	54	78 %
Unhealthy behaviour (< 60 %)	15	22%
<b>Total</b>	<b>69</b>	<b>100%</b>

**Table 13: Overall Health promoting behaviours of the elderly**

Health promoting behaviours	Number	Percentage
Healthy behaviour (≥ 60%)	38	55 %
Unhealthy behaviour (< 60 %)	31	45 %
<b>Total</b>	<b>69</b>	<b>100%</b>



**Fig-1: Overall health promoting behaviours of the elderly**

## DISCUSSION

According to the study done in the practice of health promoting behaviours regarding nutrition of the elderly in the community, it was found that 62% (n = 43) of the participants were healthy behaviours and 38% (n = 26) of the participants were unhealthy behaviours. WHO (2016) described that many of the diseases suffered by older persons are the result of dietary factors, some of which have been operating since infancy [8]. These factors occur with ageing process. Degenerative diseases such as cardiovascular and cerebrovascular disease, diabetes, osteoporosis and cancer which are among the most common diseases affecting older persons, are all diet-affected. Therefore, the adequate nutrition is essential to promote healthy behaviours of the elderly and it is needed to change the quantity and quality of nutrition with increasing age for health promoting behaviours.

This study showed that most of the elderly had not done in physical activity for health promotion. Taylor stated that key factors in improving health are exercising at a moderate to vigorous level for at least 5 days per week and including both aerobic and strengthening exercises [4]. Therefore, elderly people need to do physical exercise for improving their health.

In this study, the majority of the participants had healthy behavior in stress management. Stress makes hormones that speed up heart, make breathing faster, and give a burst of energy. If stress happens too often or lasts too long, it can have bad effects. It can be linked to headaches, an upset stomach, back pain, and trouble sleeping. It can weaken the immune system, making it harder to fight off disease. If people already have a health problem, stress may make it worse [7]. Therefore, stress management is important for elderly person to improve their health promotion practice.

Dorothy described that social interaction offers older adult many benefits. Staying socially active and maintaining interpersonal relationship can maintain physical and emotional health and cognitive function [1]. People who continue to maintain close friendships and find other ways to interact socially live longer than those who become isolated. Therefore, staying active and maintaining interpersonal relationship is an important part of healthy aging. This study finding showed more than half of participants had healthy behaviours in interpersonal relationships.

Regarding taking responsibility of their own health, it showed that it is needed to encourage and support to attend the health educational program for the activities of elderly people. Taking personal responsibility for his/her own health and well-being and decreasing risk of developing disease can increase the chances of living healthier and longer [5]. Therefore, health responsibility is important for health promotion of the individual.

Spiritual health is an important dimension of human health and it can determine the individual integrity. Also spiritual health is a powerful that coordinates physical, mental, social dimensions and is necessary in coping with the diseases. There are a number of studies that support the beneficial effects of spirituality on health. These health benefits include both physical and mental well-being. Spiritual growth can reduce mental distress and induce inner peace and hopefulness [3]. The findings of this study showed that more than half of the participants had healthy behavior in spiritual growth.

Generally, the overall findings of this study, the health promoting behaviours of the elderly in the

community highest scored in the “stress management”, and lowest scores in taking “health responsibility” and “physical activity”. As a conclusion, it is necessary to develop a health promotion program with reinforced physical activity and health responsibility for elderly in the community. Therefore, nurses should provide appropriate education programs and interventions which strengthen the knowledge and skills related to health behaviours. The elderly should actively participate in this education programs and should also take responsibility for their own health.

### **CONCLUSION**

Nurses can take part in strengthening the support systems of families with an older person by being a part of it or by identifying available community resources that are socially and financially feasible. A day care program and aging home for the older person should be initiated. The government should provide enough economic and policy support to improve health promoting programs in the community

### **ACKNOWLEDGEMENTS**

First and foremost, we are highly appreciated to the elderly people in Chan Mya Thar Si Township, Mandalay, Myanmar for giving their time and effort to answer the questionnaire to get data for this study.

Next, our appreciation also goes to all members of our faculty for all supports, advises and technical assistance provided by them from the start until the end of this research process.

### **REFERENCES**

1. Dorothy. Social interaction helps elderly loved ones to live a healthier life, 2015, retrieved from [http:// baywoodhomecare.com/caregiver-support-2/importance-of-social-interaction-among-elderly/](http://baywoodhomecare.com/caregiver-support-2/importance-of-social-interaction-among-elderly/)
2. Ministry of Health, Elderly Care in Myanmar, Health in Myanmar 2014, Nay Pyi Taw.
3. Rahimi A, Anoosheh M, Ahmadi F, Foroughan M. Exploring spirituality in Iranian healthy elderly people: A qualitative content analysis, Iran J Nurs Midwifery Res. 2013 Mar-Apr; 18(2): 163–170.
4. Taylor D. Physical activity is medicine for older adults, Postgrad Med J. 2014;90(1059):26-32.
5. University of Minnesota, Taking charges of your health and wellbeing. What’s my role? 2013. Retrieved from [http:// www. https://www.takingcharge.csh.umn.edu/navigate-healthcare-system/whats-my-role/whats-my-role-read](http://www.https://www.takingcharge.csh.umn.edu/navigate-healthcare-system/whats-my-role/whats-my-role-read)
6. Walker SN, Sechrist KR, Pender NJ. Health promotion model- instruments to measure health promoting lifestyle: health-promoting lifestyle profile [HPLP II] (Adult version). 1995. Retrieved from

<https://deepblue.lib.umich.edu/handle/2027.42/85349>

7. WebMD, Stress management- Topic overview. What happens when you are stressed? 2016. Retrieved from; <http://www.webmd.com/balance/stress-management/stress-management-topic-overview>
8. World Health Organization (WHO), Nutrition for older persons. 2016. Retrieved from <http://www.who.int/nutrition/topics/ageing/en/>
9. Yin Z, Geng Gb, lan X, Zhang L, Wang S, Zang Y, Peng M. Status and determinants of health behavior knowledge among the elderly in china: a community – base cross – sectional study, BMC Public Health. 2013;2(13):710.