CHAPTER V

CONCLUSION, DISCUSSION AND RECOMMENDATIONS

1. Conclusion

This descriptive research used to gather information of the elderly in Ao Nang during October to November 2003 use the recognized tools " The modified scoring of the Bathel Index, Chula ADL and the Chula Mental Test".

These tools were used to screen physical ability and cognitive ability with the objective of the research being described with the use of statistical tools of average, percentage, standard deviation. The information included personal information, BADL, IADL and cognitive impairment (dementia). The Chi-squares test was the statistic used to determine the importance of each relative to physical ability. Because of the sample of those with dementia was so small,the percentages were used to explain the characteristic of elderly who were suffer dementia .

Section 1. Characteristic of the elderly

The average age of the elderly population group was 68 years, with the majority of the population being female. 94.7 percent of the population was Muslim. With regard to education levels of the elderly population group, 47.5 percent of the group completed basic primary school, with a similar size group with no education. However,

most of the elderly were able to read and write sufficiently. The examination of the living status of the elderly population found 63.5 percent living with their family, or relatives. 97.9 percent of the elderly had a caretaker, of this group 56.5 percent needed a caretaker on a case by case basis.

The result of income levels studies showed 64.5 percent of the elderly received income from their family. From this income, 75.7 percent responded that this income was enough for daily consumption, but not enough for additional saving.

The majority of the elderly populations were free of health problem as 84.3 percent stated they did not have any health problems. Of those who exhibited health problems, the major complaint was found to be joint and muscular difficulties which afflicted 49.2 percent.

Section 2. Assessing of physical ability

2.1 The evaluation of the basic activities of daily living (BADL)

The evaluation of the elderly population examined each activity within this group (BADL). It was found 96.5% of the elderly could wash their face and brush their teeth without the caretaker. The activity that the elderly most often needed assistance with was toilet use, as 13.1 % reported the need for caretaker.

2.2 Assessing Instrumental Activities of Daily Living (IADL)

The activity most commonly accomplished without aid by the elderly was the exchange of the money, as 90.9% reported this could be done without assistance. The

activity which elderly were most dependent on another were cooking and use of transportation, with 20.8% and 20.0 percent needing assistance.

2.3 Assessing basic activities of daily living found the majority of the elderly population were able to do the basic activities independently. 76.8 percent could perform these activities, while 3 percent reported they were unable to perform any of the basic activities of daily living.

2.4 When examining the ability of the elderly to perform both basic activities of daily living (BADL) and instrumental activities of IADL daily living, it was found that some were not able to perform any of activities within each group. It was determined that 23.2 percent of population could not perform any of basic activities of daily living and 29.9 % could not perform any of the instrumental achieves of daily living.

Section 3. Factors related to BADL

The factors examined were age, education level, writing and reading ability, period of caretaking and strength of the relationship with caretaker, working status, source of income, health problems concerning vision and hemiplegia.

Section 4. Factor related to IADL

The factors examined were age, education level, writing and reading ability, period of caretaking and strength of the relationship with caretaker, working status, source of income, health problems concerning sight and hemiplegia.

Section 5. Assessing dementia

The level of cognitive ability was determined using the CMT test. It was found that 1.1% of the population scored less than 15 on the test and was dependent on a caretaker for at least one activity in BADL, it was screened on dementia.

Section 6. Factors related to dementia

Population of the above 80 year-old group found equal population between male and female with all of the population being Muslim. All of these groups were uneducated, illiterate. The majority of this population group lived with their family and relatives, and had unlimited access to caretakers. The datas reported that the elderly had strong relationships with their caretakers. Their income levels were described as sufficient for daily consumption with no potential for saving.

2. Discussion

The result of the research of the functional abilities of the 375 elderly persons in Ao Nang will be described below following the structure of the research questionnaires.

Section 1. Characteristics of the elderly

The age range from 60-69 years which is agreed with the "Health problem of Thai elderly" by Sutichai [8] which showed 57.4%. 54% of the elderly population was female, which is agreed with the research " Quality of Life of Elderly in Northern most section of Southern Thailand" by Wanna[13] whose results 67% of the population to be female, and " Status of Thai Health survey" by Sutichai[8] showing 57.2% of the population being female. The result of the female majority may be a result of males

being more prone to illness and following behavior which is adverse to the health. 94.7% of the elderly population were of Muslim religion due to the proximity to Malaysia which is predominates Muslim. Kanitta cited in Wanna[13]. 47.5% of the population graduated from basic primary school agree with the research " Survey of the Health problems of the Thai elderly" by Sutichai[8]. This research showed 43.4% of the population graduated from basic primary school. Further research by the "Population and Housing report Krabi province- 2000[39]" showed 58.15% of the elderly population graduating from basic primary school. 42.4% of the population was found to have sufficient reading abilities and 40.5% in writing. This is agree with the "Survey of the Health Problems of the Thai Elderly" by (Sutichai)[8] which showed sufficient reading abilities for 50.1% of the population and 43.47% for writing, The 60-69 year old age group, is the youngest of the elderly population and thus attained a sufficient level of reading and writing abilities. 63.5% of the elderly population lived with their family or relative which is agree with Siranee[40] Quality of life of the elderly in upcountry Chiang Rai province, 1999. This research showed 54.3% of the elderly live with family and relatives, This data is also agree with Wanna[13] whose research showed that the children still lived with their parents, even after marriage.

In the first age group 60-69 years, the relative youth compaired to the elderly population gave them a greater ability to work and take care of themselves. In this group, caretakers generally were only necessary on a case by case basis. In 67.5% of this group, strong family ties were reported. Even in the case of the extended family type, the children still working would return home to take care of the parents. 37.9% of the elderly population were found to be unemployed. Since Ao Nang is primarily a

tourist destination, most of the jobs are tourist related and workers in the tourist industry are generally of working ages. The elderly therefore are usually confined to the home. 64.5% of the elderly receive their income from their family. This data is agree with Waraporn , Chamaiporn and Chayanton [41]. 86.4% of the elderly received their income from their family and relatives, with 75.7% reporting this income was sufficient for daily consumption but with out potential for savings. This is agree with Wanna [13] whose research showed 41.25% of the elderly received their income from family and relatives. 84.3% of the elderly population reported no major health problems, primarily due to the ability of the 60-69 years old group still being independent and the healthy eating habits including consumption of vegetables in the diet. Low levels of pollution in the environment also are a positive contributing factor. However, those who did have health problems, 49.2% of these problems were muscular and joint related. This is agree with Wanna[13] whose research found 38.4% of health problems were muscular and skeletal related.

Section 2. The results of this study followed by the objective

2.1 Basic activities of daily living ability of the elderly

After the assessing of the basic activity of daily living, it was shown 13.1% of the population need assistance in urinating and 10.7% in defecating. 8.3% needed assistance in walking on stairs and 7.5% needed help to move. 5.6% of the population needed help getting out of bed to use the toilet. 4.8% needed help in dressing themselves, 4 % needed help in showering and the same percent for eating. 3.5% needed assistance in grooming.

The overall evaluation of the activities of BADL found that 23.2% of the population needed help in all activities. These results showing limited physical abilities were of lesser magnitude than the research of Tanyaluk[12] . Her research showed 57.7% needed assistance in walking on stairs, 32.9% needed assistance in walking in the home, 21.7% needed aid in urinating and 19.3% in using the toilet and 16.2% in defecating. She also showed 9.3% needed aid in dressing themselves, 8.1% needed help in bathing with 7.4% need assistance in getting out of bed while 44.7% of the total BADL activities found dependency due to limited physical abilities.

The increased dependency found in the research of Tanyaluk Horbanluekit can be attributed to her population age group of 80 years plus being the largest while this research group's largest age group was 60-69.

The research of Sutichai[8] shows that age is a major factor determine the BADLS, As age increases, and mobility decreases. Tanyalukt's[12] research comparing the elderly living in the village to the elderly living in the old age home found decreased mobility of those living in the old age home.

2.2 IADLS

20.8% of the population needed assistance in cooking similar to the percentage of those needing aid in using transport. 14.1% need help in housekeeping. 10.9% needed aid in walking outside the home. 9.1% needed help in exchanging money. A total 29.9% needed in help in some instrumental activity. 3.2% needed help in all activities.

Tanyaluk's research shows an increased dependency in performing IADL. 68.39% of the elderly in an old age home needed assistance in performing IADL activities with increased age this dependency increases. Her study of the 80 years old and over showed as age increases, the level of dependency increased. This is agreed with Sutichai. [8]

2.3 Factors related to BADL

1. Age- the result of this research shows as age increase, physical abilities decreased, agree with (Suttichai[8] , Prapaporn[42], Maturos [43] , Nisakorn[33] ,Woo J, Hosc Yuen Yk, Yu LM, Laul[34], Tanyaluk[12], S Shalar, Jearland, Abd Rakmans[32], Apinya[44], Ingjai [36],Raya.[45]
2. Education research shows the relationship to BADL as agreed with Maturos[43] and Nisakorn[33] shows education levels can affect the knowledge about health problem and lower education and socials levels can create health problems, illness and immobility.
3. Reading and writing ability factor related to BADL. The research results agreed with Nisakorn[33] and Suttichai[8] explains the reading and writing ability of the elderly makes them more independent in their knowledge about BADL and that this knowledge can lead them to try to take care of themselves and improve their abilities.
4. Living status factor related to BADL. The period of caretaking and strength of the personal relationship of the caretaker factors can

explain that strong family ties can improve the self worth of the elderly. Similar confirmation of this research has not been found.

5. Working status factors related to BADL. The research shows unemployed elderly are more dependent than those that are employed. Those that are unemployed need a greater level of assistance in performing BADL.
6. Source of income factor related to BADL. This research shows that the elderly dependent on others for BADL receive their income from family and relatives. This may explain that this group may be less able to help themselves but this has not been confirmed by other research.
7. Hemiplegia related to BADL.This research is agreed with Tanyaluk [12] shows deficiency in physical abilities comes as a result of illness. This will adversely affect the elderly's ability to help themselves and perform BADL.

2.4 The factors related to IADL

1. Age The factors related to IADL agreed with Tanyaluk[12], Suttichai[8], S Shalar, J Earland, Abd Rahmon S[32] and Nisakorn[33] show that with the increases in age comes a deterioration of the mental and physical abilities
2. Reading and Writing ability. The research results confirmed by Tanyaluk[12] and Sittichai[8] show that the elderly with sufficient reading and writing abilities were more independent in their IADL.

The thinking process used in reading and writing helps the elderly in their everyday tasks.

3. Period of caretaking and strength of relationship with caretaker. The research showed that those with unlimited caretaking and with strong relationship with their caretaker were more dependent than the others in the group. The family would tend to take care of these activities for the elderly, making them more dependent. There was no confirmation from other researchers.
4. Working status. The research results confirmed by Nisakorn[33] that the unemployed elderly person were more dependent in their IADL. More than those that were employed. Those who worked had higher social status and reinforcement of their abilities. On the other hand, the unemployed would feel their social status had been lowered with a decline in their IADL abilities.
5. Source of Income

   The research confirmed that those who were dependent in their IADL received money from their family were most likely to be dependent in their IADL.
6. Health factor related to vision

   The research confirmed by Suttichai[8], S Shalar, J Earland[32] and Ingjai[36] that as ones age increased, their vision would deteriorate, creating obstacles to being independent in their IADL.
7. Hemiplegia

This research agreed with Tunyaluk[12] and Suttichai[8] showed that those with a deficiency in their physical ability will affect their independence in IADL, making them more dependent.

2.5 Assessing dementia in the elderly

In Ao Nang is 1.1% of the population exhibited, this compares to the results of the nation wide study which showed 3.4%. In Tambon Salaya,Nakorn parom province [46] the result was 4.8%. In Klong Toey[47], Bangkok. 1.8% of the population exhibited dementia and 3.2% in Roiet province.[36]

The difference in the results of this study compared with other region could be because of the smaller size of the population group. Also the difference in medical technology between regions as will between the Chronological differences in the studies can affect the results. Difference in the environment, lifestyle and geography will all affect the results. However this study only found a minimum of those with dementia. Lower pollution from factories and chemicals and the family oriented lifestyle are all positive factor contributing to those with dementia.

2.6 Factors related to dementia.

The research found only 4 people fell in dementia group, so percentages are used to explain the relationship with personal factor that affect dementia . All four people were Muslim, with the most people in 80 years and older. Uneducated people were more likely to show dementia compared to the educated population, and all four in this group were illiterate. The majority lived with their families and relatives; all

needed unlimited caretakers with the strongest personal relationship with their caretakers. All were unemployed and received just enough income from their family for daily consumption without potential for saving. This group felt that they had no health problems, though the health problems most commonly found were muscular and skeletal problems.

Important statistical factor related to dementia.

1. Age

The age group 80 years and older found more occurrences of dementia, than the 60-69 year and 70-79 year old groups. The last two group were equal in their number of people with dementia. The results could be due to the small size in the population, however this research shows the trend that the greater the age, the greater the incidence of dementia. This finding has been confirmed by Ingjai [36] and Orapan [37] who found the deterioration in brain cell replacement in persons over the age of 35, although other body functions can be normal. With the advance in age, people can adjust their body functions to suit their needs, but this is not possible to do with cognitive ability.

2. Education

Uneducated persons were found to have more incidence of dementia than those who are educated. This is confirmed by Ingjai [36], Sutichai [8], Worapan[37]and Apinya [46] and other. Katzman's [48] studies showed that those who studied higher levels of neocortical synaptic density, which remforces the findings that education can improve cognitive abilities

3. Reading and Writing ability

Those who cannot read or write were more likely to exhibit dementia as agreed with Suttichai[8]This relationship can be explained by brain capacity and premorbid ability as continued development of the brain and higher understanding will result in fewer incidences of dementia.

4. Living status and caretaking and strength of relationship with caretaker

The group of the people exhibiting dementia lived with their family, had unlimited caretaking and strong relationships with their caretaker. Large family size may be a factor that affect dementia, reducing the abilities of the elderly. Some symptoms of an elderly persons who suffer dementia could be higher levels of aggressiveness and anger.There were no real relationship between caretaking and the incidence of dementia in the elderly confirmed by Ingjai [36] who could not find any concrete relationship between the two factors. Further studies in the Ao Nang area should be made to get a clearer picture.

5. Working status, source of income and income levels.

Cognitive abilities of the unemployment were lower as have fewer chance to develop their abilities. The source of income coming from the family at subsistence level only propagates the abilities to remain dementia.

6. Health and illness

Those with dementia exhibited the greatest occurrence of hemiplegia. These condition makes them dependent on performing activity in daily living.

3. Recommendation

For Research

For the next study should be determine the relationship between ADL, IADL, and CMT. And the questionnaires should be improve such as add is an "other" (please specify) choice on symptom or sickness " (No.15) in the socio-demographic questionnaire. Moreover, this study found the limitation of CMT test with the elderly who abnormality, problem with communication and confusion which trend to suffer dementia more than general group. Thus, it should modify the CMT appropriate for those as well.

For intervention

The health officer should focus on promote healthy lifestyle in all age especially the elderly such as encouraging the correct activities though out their lifetime, such as healthy diet with high calcium and annual check-up. Beside this, the health officer should support families in the community to necessitate of taking care the elderly, especially for those who are dependent in performing activity of daily living.