

## **CHAPTER IV**

### **RESEARCH RESULTS**

The study of the population of the elderly in Ao Nang consisting of 505 people resulted in data collected from 375 persons. This difference in population was due to the initial survey being incorrect. The final study results covered all 375 elderly persons in Ao Nang. The evaluation of their functional abilities was divided in the two subset, physical ability and cognitive ability. The study will relate how different factors affect physical ability and cognitive ability. The results will be displayed in 6 sections

Section 1. Demographic socio- demographic characteristic of the elderly

Section 2. Assessing Physical ability concerning to BADL and IADL

Section 3. Factors related to basic activities of daily living (BADL)

Section 4. Factors related to Instrumental activities of daily living (IADL)

Section 5. Assessing dementia

Section 6. Factors related to dementia

## Section 1. Demographic and socio-demographic characteristic of the elderly

### 1. socio-demographic and characteristic of the elderly

Consists of age, sex, religion, education, reading and writing ability, family living status, caretaker availability, period of caretaking, strength of caretaker personal relationship, working status, source of income, sufficiency of income levels, perception on health problems and long term or short term illnesses. All of this information will be shown in Table 1 to 5

The average age of population showed was 68 years. The standard deviation of the ages was 7.3%. The population consisted of 54.1% female and 45.9% male. 94.7% of the population was Muslim, 5.3% was Buddhist. (Table 1)

**Table 1: Number and Percents of population separated by age, sex religion**

Socio-demographic	Number	Percent
<b>Age</b>		
60 – 69 Years	205	54.7
70- 79 Years	120	32.0
More than 80 Years	50	13.3
Median=68 ,Mean =69.92		
Minimum=60 Years , Maximum =97 Years		
<b>Sex</b>		
Male	172	45.9
Female	203	54.1
<b>Religion</b>		
Buddhist	20	5.3
Muslim	355	94.7

The education levels of population surveyed showed 47.5% finishing only basic primary studies while 46.1% received no schooling at all. Only 6.4% completed primary school. Study of Reading ability showed 42.4% were able to read sufficiently, however 34.7% found to be illiterate and 22.9% were barely literate. The writing ability of the elderly population found 40.5% with sufficient writing abilities 34.1% unable to write and 25.3% with minimum ability to write (Table 2)

**Table 2: Number and percent of population separated by education, reading writing abilities**

<b>Socio-demographic</b>	<b>Number</b>	<b>Percent</b>
<b>Education levels</b>		
No education	173	46.1
Basic primary school (phathom 4)	178	47.5
Completed primary school or Higher(phathom 6)	24	6.4
<b>Reading ability</b>		
Sufficient ability	159	42.4
Barely literate	86	22.9
Illiterate	130	34.7
<b>Writing ability</b>		
Sufficient ability	152	40.5
Barely literate	95	25.3
Illiterate	128	34.1

The living status of elderly population found 63.5% still with family and relations. 24% still lived with their spouse and 12.5% lived alone. Of the 12% that lived alone, 97.9% had a caretaker and 2.1% lived alone with outside care. The percent of a caretaker to assist the elderly was divided into three categories. The first category found

56.5% of the elderly had access to a care taker on a case by case basis when a problem occurred. 36.5% of the population had unlimited access to a caretaker. 6.9% of the population had limited access to caretaker for short periods. The relationship of the caretaker to the elderly found 25.9% of the population had a caretaker with a strong personal attachment, 67.5% had only a moderate personal relationship and 6.7% to the populations felt ignored by their caretaker (Table 3).

**Table 3: Number and percent of population separated by living status, caretaker, period of care available, relationship of care taker.**

<b>Socio-demographic</b>	<b>Number</b>	<b>Percent</b>
<b>Living Status</b>		
Alone	47	12.5
With spouse	90	24.0
With family and relatives	238	63.5
<b>Caretaker</b>		
Yes	367	97.9
No	8	2.1
<b>Period of care available</b>		
Unlimited	137	36.5
Short period	26	6.9
Case by case	212	56.5
<b>Relationship of care taker</b>		
Poor	25	6.7
Moderate personal relation	253	67.5
Strong personal attachment	97	25.9

Working status and Income levels of the elderly 62.1% of the elderly population are not employed, while 37.9% are working. 64.5% of the elderly receive money from their family. 75.7% at those surveyed had income for daily consumption only , while

22.7% had income at a level high enough to provide savings, while, 1.6 % did not have enough income for daily living. (Table 4)

**Table 4: Number and percent of population separate by working status and income level**

<b>Socio-demographic</b>	<b>Number</b>	<b>Percent</b>
<b>Working status</b>		
Employed	142	37.9
unemployed	233	62.1
<b>Income source</b>		
From work	133	35.5
From family	242	64.5
<b>Income level</b>		
Enough for daily consumption savings	85	22.7
Enough for daily consumption only,	284	75.7
Not enough	6	1.6

Perception on health problems of the elderly. 84.3 % of the population were free from major health problems, while 15.7 % were afflicted with a major ailment. Of this latter group, 49.2 % experienced muscular and skeletal ailments, 15.2 % had dizziness, 13.9 % experienced hypertension, 8.5 % a loss of hearing, 5.3 % complained of sleep disorders, 4 % were Diabetes mellitus and another 2.4 % were Hemiplegia. (Table 5)

**Table 5: Number and percent of population separated by long term health problem**

<b>Socio-demographic</b>	<b>Number</b>	<b>Percent</b>
<b>Perception on Health problem</b>		
Yes	59	15.7
No	316	84.3
<b>Personal disease or sickness</b>		
Hearing	32	8.5
Vision	57	15.2
Muscular and skeletal	186	49.2
Dizziness	57	15.2
Sleep Disorder	20	5.3
Hypertension	52	13.9
Diabetes mellitus	15	4.0
Hemiplegia	9	2.4

## **Section 2. Assessing Physical ability concerning to BADL and IADL**

The research evaluates the physical abilities by dividing in to two categories basic activities of daily living (BADL) and instrumental activities of daily living (IADL) the details are show in table 6.

The basic activities of the elderly population in Ao Nang are sorted in to ten activities which the elderly can perform by themselves. 96.5% of the population can wash their face and combing hair (grooming), 96% are able to eat and bath themselves, 13.1% of the population needed assistance for bladder control (Table 6)

**Table 6: Number and percent population separated by basic activities of daily living (BADL) and their level of ability to perform**

Activities	Level of Ability								Total	
	Independence		Need supervision		Need assistance		Dependence			
	Number	%	Number	%	Number	%	Number	%	Number	%
Eating	360	96.0	-	-	11	2.9	4	1.1	375	100
Grooming	362	96.5	-	-	-	-	13	3.5	375	100
Bed mobility	354	94.4	12	3.2	6	1.6	3	0.8	375	100
Toilet use	354	94.4	-	-	13	3.5	8	2.1	375	100
Mobility	347	92.5	13	3.5	6	1.6	9	2.4	375	100
Dressing	357	95.2	-	-	10	2.7	8	2.1	375	100
Stairs	344	91.7	-	-	19	5.1	12	3.2	375	100
Bathing	360	96.0	-	-	-	-	15	4.0	375	100
Bowel control	335	89.3	-	-	31	8.3	9	2.4	375	100
Bladder control	326	86.9	-	-	39	10.4	10	2.7	375	100

90.9% of the elderly population was able to perform the function of money exchange. 89.1% were able to able to walk outdoors unsupervised, 85.9% were able to perform household work 20.8% of the elderly needed assistance in cooking while 20% needed supervision to use public transport (Table 7)

**Table 7: The Number and percent of the elderly population separated by activity and the ability to perform daily activities continuously.**

Activities	Ability to perform instrumental activities of daily living								Total	
	Independence		Need supervision		Need assistance		Dependence			
	Number	%	Number	%	Number	%	Number	%	Number	%
Walking outdoor	334	89.1	-	-	21	5.6	20	5.3	375	100
Cooking	297	79.2	53	14.1	-	-	25	6.7	375	100
Working household	332	85.9	-	-	-	-	53	14.1	375	100
Money exchange	341	90.9	-	-	-	-	34	9.1	375	100
Public transport	300	80	-	-	55	14.7	20	5.3	375	100

In addition, in the study the basic activities of daily living, 76.8% of the elderly population were able to perform these activities independently, 0.3% were totaling department on others to perform these takes. Table 8

**Table 8: The number and percent of the population separated by the independence to perform basic activities of daily living**

<b>Basic activities of daily living</b>	<b>Number</b>	<b>%</b>
Independence	288	76.8
Total dependence	1	0.3

In the study of instrumental activities of daily living, it use 70.1% were able to perform these duties independently, 3.2% were totally dependent on others to perform these tasks. (Table 9)

**Table 9: The number and percent of the population separated by the independent to perform instrumental activities of daily living**

<b>Instrumental activities of daily living</b>	<b>Number</b>	<b>%</b>
Independence	263	70.1
Total dependence	12	3.2

When we evaluate both the BADL and IADL of the elderly population in Aonang, we can see a clear picture of the dependence and independent of the elderly with regards to their physical ability. 76.8% of the population were able to perform the basic activities of daily living. With 23.2% needed assistance to perform these activities.



70.1% of the elderly were able to perform the instrumental activity of daily activities, while 29.9% were dependent on others to perform these activities (Table 10)

**Table 10: Number and percentage of the population separated by dependence and independence in performing BADL and IADL**

Physical ability status	BADL		IADL	
	Number	%	Number	%
Dependence	87	23.2	112	29.9
Independence	288	76.8	263	70.1
Total	375	100	375	100

### **Section 3. Factors related to basic activities of daily living (BADL)**

The analysis of the relationship between BADL and age with p-value of  $< 0.05$  resulted in the finding that the highest level of dependency, 44% were found in the age 80 years and over, The age bracket of 70-79 years resulted in 20.8% dependency and the 60-69 years age range a 19.5%. Sex and religion were not statistically related to the level of dependency in performing basic activities of daily living. (Table 11)

**Table 11: The population factors related to BADL separated by age, sex and religion**

<b>Population factors</b>	<b>Dependence Number (%)</b>	<b>Independence Number %</b>	<b>p-value</b>
<b>Age</b>			
60-69 Years	40 (19.5)	165 (80.5)	0.001*
70-79 Years	25 (20.8)	95 (79.2)	
80 Years and over	22 (44.0)	28 (56.0)	
<b>Sex</b>			
Male	34 (19.8)	138 (80.2)	0.147
Female	53 (26.1)	150 (73.9)	
<b>Religion</b>			
Buddhist	6 (30)	14 (70)	0.459
Muslim	81 (22.8)	274 (77.2)	

Population separated by education, reading ability, writing ability related to BADL. With regards to the relationship between education and the dependence in performing BADL, 33.3% of those dependent graduated from primary school, while 28.9% had no education. The relationship between reading ability and dependence in performing BADL found 33.8% of those dependent were illiterate. 17.4% of those dependent were able to read with sufficient ability and 17.6% were literate. The relationship between BADL and writing ability found 35.2% of those dependent were unable to write, with 17.8% were able to write sufficiently (Table 12)

**Table 12: Population factors related to BADLS separated by Education levels, reading ability and writing ability**

<b>Population factors</b>	<b>Dependence Number (%)</b>	<b>Independence Number %</b>	<b>p-value</b>
<b>Education levels</b>			
No Education	50 (28.9)	123 (71.1)	0.010*
Completed basic primary school	29 (16.3)	149 (83.7)	
Completed primary school	8 (33.3)	16 (66.7)	
<b>Reading ability</b>			
Illiterate	44 (33.8)	86 (66.2)	0.002*
Barely literate	15 (17.4)	71 (82.6)	
Sufficient ability	28 (17.6)	131 (82.4)	
<b>Writing ability</b>			
Illiterate	45 (35.2)	83 (64.8)	< 0.001*
Barely literate	15 (15.8)	80 (84.2)	
Sufficient ability	27 (17.8)	125 (82.2)	

Population factors separated by Family living status, caretaker availability and period of caretaking, strength of care taker's personal relationship related to BADL. The strongest relationship was found between BADL and Family living status and period of caretaking. 27.7% of those dependent on others to perform BADL lived alone, 26.9% lived with their family while 11.1% lived with their spouse. The relationship between dependence in performing BADL and the length of the period of caretaking found 30.7% of those dependent on others had unlimited access to caretakers, 26.9% of those dependent had short periods of caretaking while 17.9% of those dependent had caretakers on a case by care basis. (Table 13)

**Table 13: Population factors related BADL separated by Family living status, caretaker availability, period of caretaking and strength of caretaker's personal relationship**

<b>Population factors</b>	<b>Dependence Number (%)</b>	<b>Independence Number %</b>	<b>p-value</b>
<b>Family living status</b>			
Live alone	13 (27.7)	34 (72.3)	0.008*
With spouse	10 (11.1)	80 (88.9)	
With family and relative	64 (26.9)	174 (73.1)	
<b>Caretaker</b>			
Yes	84. (22.9)	283 (77.1)	0.333
No	3 (37.5)	5 (62.5)	
<b>Period of caretaking</b>			
Unlimited	42 (30.7)	95 (69.3)	0.020*
Short period	7 (26.9)	19 (73.1)	
Case by case	38 (17.9)	174 (82.1)	
<b>Relationship of care taker</b>			
Poor	5 (20)	20 (80)	0.304
Moderate personal relation	54 (21.3)	199 (78.7)	
Strong personal attachment	28 (28.9)	69 (71.1)	

Population factors separated by working status, income source and income levels related to BADL. The strongest relationship was found between BADL and working status and income source. 1.4% of those who were dependent others for BADL, 29.2% were unemployed, while 28.5% received income from their family. Income level was found to be statistically insignificant in relation to dependence in performing BADL. (Table 14)

**Table 14: Population factors related BADL separated by working status, income source and income levels**

<b>Population factor</b>	<b>Dependence Number (%)</b>	<b>Independence Number %</b>	<b>p-value</b>
<b>Working status</b>			
Working	19 (13.4)	123 (86.6)	<0.001*
Unemployed	68 (29.2)	165 (70.8)	
<b>Income source</b>			
From working	18 (13.5)	115 (86.5)	0.001*
From family and relative	69 (28.5)	173 (71.5)	
<b>Income levels</b> (Fisher's Exact test)			
Enough for daily consumption savings	14 (16.5)	71 (83.5)	0.169
Enough for daily consumption only	71 (25.0)	213 (75.0)	
Not enough	2 (33.3)	4 (66.7)	

The population factors separated by health problems and long term sickness related to the dependence on others to perform BADL found a 100% correlation between immobility and dependence on others to perform BADL. (Table 15)

**Table15: Population factors related to BADL separated by Health problems and long term sickness**

<b>Population factors</b>	<b>Dependence Number (%)</b>	<b>Independence Number %</b>	<b>p-value</b>
<b>Health problems</b>			
Yes	10 (16.9)	49 (84.1)	0.215
No	77 (24.4)	239 (75.6)	
<b>Personal disease or sickness</b>			
Hearing	10 (31.3)	22 (68.7)	0.180
Vision	16 (28.1)	41 (71.9)	0.217
Muscular and skeletal	42 (22.6)	144 (77.4)	0.437
Dizziness	12 (21.1)	45 (78.9)	0.411
Sleep disorder	4 (20.0)	16 (80.0)	0.488
Hypertension	14 (26.9)	38 (73.1)	0.300
Diabetes mellitus	3 (20.0)	12 (80.0)	0.764
Hemiplegia	9 (100)	-	< 0.001*

#### **Section 4. Factors related to Instrumental activities of daily living (IADL)**

Factors related to Instrumental activities of daily living (IADL), sex, age and religion. Age was the most important factor determining dependence. 60% of those over 80 years old were dependent upon others to perform IADL. 40.8% of those in the 70-79 age groups were dependent, while only 18% of the 60-69 age groups were dependence on others. Sex and religion were not important determinants in dependence on others for IADL (Table 16)

**Table 16: Population factors related to IADL separated by age, sex and religion.**

<b>Population factors</b>	<b>Dependence Number (%)</b>	<b>Independence Number (%)</b>	<b>p-value</b>
<b>Age</b>			
60-69 Years old	37 (18.0)	168 (82.0)	< 0.001*
70-79 Years old	49 (40.8)	71 (59.2)	
80 years old +	30 (60.0)	20 (40.0)	
<b>Sex</b>			
Male	53 (30.0)	119 (69.2)	0.963
Female	63 (31.0)	140 (69.0)	
<b>Religion</b>			
Buddhist	6 (30.0)	14 (70.0)	0.926
Muslim	110 (31.0)	245 (69.0)	

Population separated by education, reading ability, writing ability related to IADLS. The results of the study of the elderly population showed that reading and writing ability were related to the dependence on other to perform IADL. 39.2% of those who were dependent were illiterate, while 32.69% had limited reading skills, while 23.3% of those who were dependent were literate. The factor of writing ability showed 40.6% of those dependent of others for IADL were unable to write, 27.4% had limited ability to write, while 25% those dependent had sufficient writing abilities. (Table 17)

**Table 17: Population factors related to IADL separated by Education, reading ability and writing ability**

<b>Population factors</b>	<b>Dependence Number (%)</b>	<b>Independence Number (%)</b>	<b>p-value</b>
<b>Education levels</b>			
Non Education	54 (31.2)	119 (68.8)	0.461
Basic primary school	52 (29.2)	126 (70.8)	
Completed primary school	10 (41.7)	14 (58.3)	
<b>Reading ability</b>			
Illiterate	51 (39.2)	79 (60.8)	0.013*
Barely literate	28 (32.6)	58 (67.4)	
Sufficient	37 (23.3)	122 (76.7)	
<b>Writing ability</b>			
Illiterate	52 (40.6)	76 (59.4)	< 0.001*
Barely literate	26 (27.4)	69 (72.6)	
Sufficient	38 (25.0)	114 (75.0)	

Population factors separated by family living status, caretaker availability, period of caretaking, strength of caretaker's personal relationship related to IADL. The strongest relationship was found between dependency on IADL and period of caretaking and strength of caretaker's personal relationship. 43.8% of those who were dependent on others for IADL had unlimited access to caretakers, 34.6% had short periods of caretakers and 22.2% were dependent on caretakers on a case by case basis. With regards to the factor of strength of caretaker's personal relationship to dependence on others for IADL, 41.2% of those dependent had a strong personal attachment to their caretaker, while 40% felt ignored by their caretaker, and 26.1% had a moderate personal relationship. (Table 18)



**Table 18: Population factors related to IADL separated by living status, caretaker, period of caretaking and strength of caretaker's personal relationship.**

<b>Population factors</b>	<b>Dependence Number (%)</b>	<b>Independence Number (%)</b>	<b>p-value</b>
<b>Living status</b>			
Live alone	14 (29.8)	33 (70.2)	0.100
Live with spouse	20 (22.2)	70 (72.8)	
Live with family and relative	82 (34.5)	156 (65.5)	
<b>Caretaker</b>			
Yes	114 (31.1)	253 (68.9)	0.714
No	2 (25.0)	6 (75.0)	
<b>Period of caretaking</b>			
Unlimited	60 (43.8)	77 (56.2)	< 0.001*
Short period	9 (34.6)	17 (65.4)	
Case by case	47 (22.2)	165 (77.8)	
<b>Relationship of care taker</b>			
Poor	10 (40.0)	15 (60.0)	0.014*
Moderate personal relation	66 (26.1)	187 (73.9)	
Strong personal attachment	40 (41.2)	57 (58.8)	

Population factors separated by working status, income source and income levels related to IADL. It was found working status and income source were the two factors most strongly related to IADL. 39.5% of those dependent on others to perform IADLS were unemployed. 38.4% of those dependent received income from their family. Income levels were not found to be an important factor. (Table 19)

**Table 19: Population factors related to IADL separated by working status, income source and income levels**

<b>Population factor</b>	<b>Dependence Number (%)</b>	<b>Independence Number (%)</b>	<b>p-value</b>
<b>Working status</b>			
Working	24 (16.9)	118 (83.1)	
Unemployed	92 (39.5)	141 (60.5)	< 0.001*
<b>Income source</b>			
From work	23 (17.3)	110 (82.7)	
From family	93 (38.4)	149 (61.6)	< 0.001*
<b>Income levels</b>			
Enough for daily Consumption savings	22 (25.9)	63 (74.1)	
Enough for daily Consumption only	94 (33.1)	190 (66.9)	0.112
Not enough	-	6 (100)	

The population factors separated by health problems and long term sickness related to the dependence on others to perform IADL found two strong relationships, loss of vision and immobility. 100% of those who were immobile were dependent on others for IADLS, while 49.1% of those who were dependent had a loss of vision. (Table 20)

**Table 20: Population factors related to IADLS separated by health problems and personnel disease**

<b>Population factors</b>	<b>Dependence Number (%)</b>	<b>Independence Number (%)</b>	<b>p-value</b>
<b>Health problems</b>			
Yes	13 (22.0)	46 (78.0)	
No	103 (32.6)	213 (67.4)	0.070
<b>Long term sickness</b>			
Hearing	14 (43.8)	18 (56.3)	0.077
Vision	28 (49.1)	29 (50.9)	0.001*
Muscular and skeletal	57 (30.6)	129 (69.4)	0.497
Vertigo	19 (33.3)	38 (66.7)	0.389
Sleep disorder	6 (30.0)	14 (70.0)	0.573
Hypertension	19 (36.5)	33 (63.5)	0.216
Diabetes mellitus	3 (20.0)	12 (80.0)	0.265
Hemiplegia	9 (100)	-	< 0.001*

## **Section 5. Assessing dementia**

The researcher used strict standards to separate the elderly population in to two groups, normal and dementia, first test was use a register the stale of mind on a 15 point scale, with 15 being the highest score. Next the researcher reviewed one of their BADL. The result of this evaluation found 39 people (10.7%) scored less than 15 point on the test four people (10.3%) were dependent on others for their BADL. In total, 1.1% of the entire elderly population in Ao Nang was found to have cognitive impairment or dementia. (Table 21)

**Table 21: Number and percent of the Elderly who suffer from dementia in Aonang**

<b>Cognitive ability</b>	<b>Number</b>	<b>Percent</b>
Normal	361	98.9
Dementia	4	1.1

## **Section 6. Factors relates to dementia**

The study found only a small number of the elderly with dementia, however the researcher will examine all the factors that related to the cognitive abilities such as age, sex and religion.

Of the group that was found to be dementia, 4.3% of the age group 80+ years was found to be dementia, 9% of the total age group of 70-79 years old and .5% of the age group age 60-69. The dementia of male and female sex were the same with, with 1.2% of the total male population suffer dementia and 1.0% of the female population. Religion differences found 1.2% of the Muslim population of 341 with dementia and none of the 20 Buddhist populations.(Table 22)

**Table 22: Population factors of dementia group separated by age sex and religion.**

Population Factors	Number of population	dementia	
		number	percent
<b>Age</b>			
60 - 69 Years old	202	1	0.5
70 – 79 Years old	116	1	0.9
80 Years +	47	2	4.3
<b>Sex</b>			
Male	167	2	1.2
Female	198	2	1.0
<b>Religion</b>			
Buddhist	20	-	-
Muslim	341	4	1.2

Population separated by education, reading ability, writing ability related to dementia. 1.8% of the total elderly population with no education was found to be dementia. 0.6% of those with basic primary education and none of those who graduated from primary school were found to be dementia. 3.2% of those with no reading ability and 3.3% of those with no writing ability were found to be dementia. (Table 23)

**Table 23: Population factors of dementia separated by education level, reading ability and writing ability.**

Population factors	Number of population	dementia group	
		Number	percent
<b>Education levels</b>			
Non Education	167	3	1.8
Basic primary school (Phathom 4)	175	1	0.6
Completed primary school(Phathom6)	23	-	-
<b>Reading ability</b>			
Illiterate	124	4	3.2
Barely literate	85	-	-
Sufficient	156	-	-
<b>Writing ability</b>			
Illiterate	122	4	3.3
Barely literate	94	-	-
Sufficient	149	-	-

Population factors separated by family living status, caretaker availability, period of caretaking, strength of caretaker's personal relationship related to cognitive ability. 2.1% of the elderly population that live alone exhibit dementia, while 1.1% of the population that live with their family were dementia. Of the population that has caretaker, 1.1% were dementia. 3.1% of the population with unlimited caretakers fell into dementia. 1.6% of the population with moderate strength in personal relationships to their caretaker were suffer dementia. (Table 24)

**Table 24: Population of dementia group separated by family living status, caretaker availability, period of caretaking, strength of caretakers personal relationship.**

Population factors	Number of population	Dementia group	
		Number	Percent
<b>Living status</b>			
Live alone	47	1	2.1
Live with spouse	90	-	-
Live with family and relative	228	3	1.3
<b>Caretaker</b>			
Yes	353	4	1.1
No	8	-	-
<b>Period of caretaking</b>			
Unlimited	131	4	3.1
Short period	25	-	-
Case by case	209	-	-
<b>Relationship of care taker</b>			
Poor	22	-	-
Moderate personal relation	248	4	1.6
Strong personal attachment	95	-	-

Population factors separated by working status, income source and income levels. 1.8% of those who were unemployed suffer dementia, none of those who were employed showed dementia. 1.7% of those who receive income from their family and none of those who work exhibit dementia. 1.5% of those receive only enough money for daily consumption and none of the rest of the income levels were dementia. (Table 25)

**Table 25: Population factors of dementia separated by working status, income source and income levels.**

Population factors	Number of population	Dementia group	
		Number	Percent
<b>Working status</b>			
Working	141	-	-
Unemployed	224	4	1.8
<b>Income source</b>			
From work	132	-	-
From family	233	4	1.7
<b>Income levels</b>			
Enough for daily Consumption + savings	85	-	-
Enough for daily Consumption only	274	4	1.5
Not enough	6	-	-

The population factors separated by health problems and long term sickness. 14.5% of the population with health problems exhibited dementia. 16.7% of these who suffered from hemiplegia were found to be dement along with 5.3% of those with sleeping disorders. (Table 26)



**Table 26: Population factor of separated by health problem and long term sickness**

Population factors	Number of population	Dementia group	
		Number	percent
<b>Health problems</b>			
Yes	58	4	14.5
No	303	-	-
<b>Long term sickness</b>			
Hearing	28	-	-
Vision	54	1	1.9
Muscular and skeletal	183	3	1.6
Vertigo	56	1	1.8
Sleep disorder	19	1	5.3
Hypertension	52	1	1.9
Diabetes milletus	15	-	-
Hemiplegia	6	1	16.7