FACTORS INFLUENCING QUALITY OF LIFE OF ELDERS IN CHIANG KHWAN DISTRICT, ROI ET PROVINCE, THAILAND

Mrs.Suchitra Panyadilok

ปัจจัยที่มีอิทธิพลต่อคุณภาพชีวิต ของผู้สูงอายุ
ที่อำเภอเชียงขวัญ จังหวัดร้อยเอ็ด ประเทศไทย

นางสุจิตรา ปัญญาดิลก

Thesis Title   FACTORS INFLUENCING QUALITY OF LIFE OF
                    ELDERS IN CHIANG KHWAN DISTRICT, ROI ET
                    PROVINCE, THAILAND

By   Mrs.Suchitra Panyadilok
Field of Study   Health Systems Development
Thesis Advisor   Assistant Professor Prathurng Hongsranagon, Ph.D.

_____

        Accepted by the College of Public Health Sciences, Chulalongkorn University in
Partial Fulfillment of the Requirements for the Master's Degree

        …………………………….. Dean of the College of Public Health Sciences
        (Professor Surasak Taneepanichskul, M.D.)

THESIS COMMITTEE

        …………………………… Chairman
        (Assistant Professor Ratana Somrongthong, Ph. D.)

        …………………………… Thesis Advisor
        (Assistant Professor Prathurng Hongsranagon, Ph.D.)

        …………………………… External Examiner
        (Wongwat Liulak, M.D.)

สุจิตรา ปัญญาดิลก : ปัจจัยที่มีอิทธิพลต่อคุณภาพชีวิตของผู้สูงอายุที่อำเภอเชียงขวัญ จังหวัดร้อยเอ็ด ประเทศไทย (FACTORS INFLUENCING QUALITY OF LIFE OF ELDERS IN CHIANGKHWAN DISTRICT, ROI ET PROVINCE, THAILAND) อ.ที่ปรึกษา วิทยานิพนธ์หลัก: ผศ.ดร.ประเทือง หงสรานากร, 85 หน้า.

การศึกษาวิจัยเชิงพรรณนา ครั้งนี้ วัตถุประสงค์เพื่อศึกษาคุณลักษณะปัจจัยส่วนบุคคล ได้แก่ เพศ อายุ สถานภาพสมรส รายได้ ความพอเพียงของรายได้ ปัจจัยพื้นฐานของชีวิต ปัจจัยด้านสิ่งแวดล้อมทางสังคม ปัจจัยด้านสุขภาพและคุณภาพชีวิตของผู้สูงอายุในชุมชนอำเภอเชียงขวัญ จังหวัดร้อยเอ็ด ประเทศไทย กลุ่มตัวอย่างเป็นผู้สูงอายุตั้งแต่ 60 ปีขึ้นไปที่มีชื่อและอาศัยอยู่ในอำเภอเชียงขวัญจำนวน 400 คนใช้วิธีการสุ่มแบบมีระบบ โดยใช้แบบสัมภาษณ์เป็นเครื่องมือวัดค่าความเชื่อมั่นที่ 0.80 ระยะเวลาการเก็บข้อมูลตั้งแต่ เดือนมิถุนายน 2553 ถึง กรกฎาคม 2553 การวิเคราะห์ข้อมูลใช้ค่าความถี่ ร้อยละ ค่าเฉลี่ยและส่วนเบี่ยงเบนมาตรฐาน และใช้สถิติแบบ ไคสแควร์เพื่อทดสอบความสัมพันธ์ระหว่างตัวแปรต่างๆ

ผลการศึกษาพบว่ากลุ่มตัวอย่าง ส่วนใหญ่เป็นเพศหญิงมากกว่าเพศชายร้อยละ 60 และร้อยละ 40 อายุเฉลี่ย 68.74 ปี อายุต่ำสุด 60 ปี อายุสูงสุด 91 ปีมีสถานภาพสมรสแล้ว ร้อยละ 60.25 รายได้เฉลี่ย 3,221.75 บาทต่อเดือน ร้อยละ 56.25 ประกอบอาชีพเกษตรกรรม ด้านอาหารร้อยละ 56 ยังคงรับประทานอาหารสุกๆดิบๆ ด้านที่อยู่อาศัยร้อยละ 93 มีที่อยู่อาศัยที่แข็งแรงคงทนมากกว่า 5 ปี ด้านเครื่องนุ่งห่มร้อยละ 84 มีพอเพียงตาม ฤดูกาล ด้านการรักษาร้อยละ 81.50 เลือกไปรับบริการครั้งแรกที่สถานีอนามัยและร้อยละ 84.50 ได้รับการบริการ ที่ดีจากเจ้าหน้าที่สาธารณสุขและ ได้รับรู้ข่าวสารจากโทรทัศน์ร้อยละ 88.50 ด้านความสัมพันธ์ในชุมชนร้อยละ 62 เข้าร่วมกิจกรรมวันสำคัญทางศาสนา ปัจจัยด้านสุขภาพ ส่วนใหญ่ไม่มีอาการ เจ็บป่วยร้อยละ 74.50 ไม่มีโรค ประจำตัวร้อยละ 66.25 คุณภาพชีวิตรายด้านคือ ด้านร่างกายและด้านจิตใจอยู่ในระดับกลาง ด้านสังคมและด้าน สิ่งแวดล้อมอยู่ในระดับดี คุณภาพชีวิตโดยรวมอยู่ในระดับดี ปัจจัยที่มีอิทธิพลต่อคุณภาพชีวิตของผู้สูงอายุพบว่า เพศ ($p\text{-}value = 0.050$) อายุ ($p\text{-}value = 0.019$) การประกอบอาชีพ($p\text{-}value = 0.003$) การทำงานเหมาะสมกับวัย ($p\text{-}value = 0.022$) เครื่องนุ่งห่ม ($p\text{-}value = 0.001$) การรักษาพยาบาล($p\text{-}value = 0.001$) การมีส่วนร่วมใน ชุมชน ($p\text{-}value = 0.001$) และสุขภาพทั่วไป($p\text{-}value = 0.001$) มีความสัมพันธ์กับคุณภาพชีวิตผู้สูงอายุ อย่างมี นัยสำคัญทางสถิติที่ 0.05

การศึกษาในอนาคต ควรมีการศึกษาเปรียบเทียบวิถีชีวิตของผู้สูงอายุ ที่จะส่งผลต่อภาวะสุขภาพของ ผู้สูงอายุทั้งด้านร่างกายและจิตใจและโรคที่เป็นปัญหาที่สำคัญของผู้สูงอายุในชุมชน

สาขาวิชา ....การพัฒนาระบบสาธารณสุข........................ลายมือชื่อนิสิต …………………………………

ปีการศึกษา ..... 2554.. ลายมือชื่อ อ.ที่ปรึกษาวิทยานิพนธ์..........................

5179162653: MAJOR HEALTH SYSTEMS DEVELOPMENT
KEYWORDS : QUALITY OF LIFE, ELDER

SUCHITRA PANYADILOK: FACTORS INFLUENCING QUALITY OF LIFE OF ELDERS IN CHIANG KWAN DISTRICT, ROI ET PROVINCE, THAILAND. ADVISOR: ASSISTANT PROFESSOR PRATHURNG HONGSRANAGON, Ph.D., 85 pp.

This study was a descriptive study to learn about demographic data, such as gender, age, marital status, income, sufficiency of income, basic life factors social environment factors relationship with the health factors, as well as quality of life of the elderly in Chiangkhwan District, Roi-Et Province,Thailand. The 400 samples were the elderly over 60 years of age whose name and houses were in Chiangkhwan District. Systematic sampling was used. The research tool was the interview questionnaire with reliability value of 0.80. Data collection period was from June to July 2010. For data analysis, frequency, percentage, mean, and standard deviation were employed. The relationship among variables used to Chi-square test.

The results revealed that most of the samples were females 60% and males 40%. Average age was 68.74 years, minimum 60 years and maximum 91 years. They were married 60.25% with an average income of 3,221.75 baht per month. They still performed their occupation 56.25% mostly in agriculture. For basic life factors of the elderly, most of them 56% still took raw food. For housing, most of the samples had firm houses more than 5 years service time for 93%. In terms of clothing, the samples had enough to wear 84%. For medical treatment, 84.50% of the samples first used the services at health centers. The samples got good services 81.50% from healthcare work force. For social environment factors, most of the samples 88.50% got information from television. In regards to relationship in the community, participated in religious activities 62%. For health aspect, most of the sample did not have any illness 74.50% and did not have any chronic illness 66.25%. For the quality of life of the samples, they had moderate level of physical and psychological aspects with and good level of social and environmental aspects. Overall average of the samples quality of life was good. Factors influencing the samples of quality of life were gender (p-value = 0.050), age (p-value = 0.019), occupation (p-value = 0.003), suitable job (p-value = 0.022), clothing (p-value = 0.001), medical treatment (p-value = 0.001), participate in the communication (p-value = 0.001), and general health (p-value = 0.001),with statistical significance at 0.05.

In the future should do the comparison of way of life of the elderly which impacts the elderly both in terms of body and mind, including illness as key issues in the elderly and their community.

Field of Study : Health Systems Development   Student's Signature ....

Academic Year :   2011 ....   Advisor's Signature ....

ACKNOWLEDGEMENTS

CONTENTS

LIST OF TABLES

LIST OF FIGURES

LIST OF ABBREVIATIONS

SPSS	Statistical Package Of Social Science Software
WHO	World Health Organization
WHOQO	World Health Organization Quality of Life
UNESCO	United Nation Education, Scientific and Cultural Organization

CHAPTER I
INTRODUCTION

1.1 Background and rationale

In this digital age there is a major advancement in science and technology, especially in the field of medical treatment and public health. This improvement has changed and enhanced health system of the Thai people significantly. As a result of the public health development as specified by the National Economic and Social Development Plan, Thai people have longer life expectancy. The Thai male and female have an average life expectancy of 70.1 and75.2 years respectively. As a consequence, Thailand's 60-million-people population structure has changed greatly with higher and fast-growing number of elders. Presently there are a large number of elders who are more than 60 years old in Thailand. The population of elders has been growing rapidly and continuously. In 1995, there were about 1.4 million elders or 7.17% of the total population, while the figures were increased to 1.73 million (8.21%), 2.05 million (9.45%), and 6.3 million (10.85%) in 1995, 2000, 2005, and 2010 respectively (National Economic and Social Development Board office, 2005) In addition, it is expected that in 2023, Thailand will have the fifth highest elderly population in Asia (around 13.9 million people). The oldest group would be 80 years and above with 1.2 million people. Generally all elderly age groups would consist of more female than male (Porapakkarm and Adipothi, 2000). If the situation remained unchanged, in the future, the rapid increase in elderly population would significantly change structure of healthcare and service system. According to the United Nations' criteria, an ageing society refers to a society where 10 percent or more of its population is over 60, or over 7% of its population is older than 65. In the next ten years, Thailand is expected to enter into an aging society.

In the year 2007, the (United Nations 2007) reported situation of elderly population around the world and found that the elderly population was getting higher with accelerating trend. It estimated that within the next 20 years, one out of every eight citizens, or 12.5%, will be an elder. Moreover in the next 150 years, one out of every three citizens, or 33.3%, will be an elder. Similarly, the growth rate of elderly

population in Thailand is moving on the same axis with the world trend. It is expected that in 2015, the percentage of elderly citizens as per the total Thai population will be 13.5. The advancement in science and technology, especially in the field of medical treatment and public health, greatly decelerate birth rates, reduce global population and prolong life expectancy of elders. Nonetheless, the growth rates were different between developed and developing countries where the number of elderly population has grown double during the same period of time (Chulalongkorn University, 2005). The success from public health development in various aspects (such as service, health promotion, recovery etc.) has created tangible benefit to healthcare and hygiene. People live longer. As the proportion of elders to the total population is getting higher, elderly care becomes current important issue. The transformation at old age is different from other phase in life. An elder would experience physical, mental, emotional and social degradation. The physical degradation in elders limits their roles in society and family. This would make them feel neglected, upset, and have low self-esteem. In addition, some of them may lose their spouse or close friend. As a result, they would feel sad, lonely and desolated. Unavoidably, Thailand is facing aging population problem which would have impact on economic and social aspects as well as multilateral development. Thus, all parties must prepare for aging society and determine holistic solutions as well as support these approaches in a sustainable level. The objectives are to enable elders to live peacefully with their family and others in their own age. Even for elders with illness or disabilities, they should be able to live freely until the last day of their life.(The average life expectancy is about 85 years.)

Roi Et province has a total population of 1,307,212, out of which 144,651 were elders. The average life expectancy for man was 69.07 years and 74.31 years for woman. Roi Et province is located in the Northeastern region of Thailand. It is 500 kilometer away from Bangkok. Generally, geographical features of Roi Et are high plateaus. Main occupations of the locals were in agriculture or rice farm. The areas of administration are divided into 20 districts, 192 sub-districts and 2,444 villages. There were 231 public health offices in the province.(Public Health Strategy Development Group, 2009).

During 2007 - 2009, the number of elders was increased by 9,965, from 131,686 in 2007 to 136,718 in 2008 and to 141,651 in 2009 respectively. In 2009, there are 13,577 more elderly women than men.

This study is about factors that influence quality of life of elders in Chiang khwan District, Roi Et province. Chiangkhwan District, which is divided into 7 sub-districts and has 6 public health offices, is 18 kilometers away from Roi Et province. From the record of Chiangkhwan District, during 2007 - 2009 the number of elders has been growing continuously from 3,076 in 2007 to 3,206 in 2008 and to 3,317 in 2009. From 2007 - 2009, the number of elders increased by 241. In 2009 there were 399 more elderly women than men.

This research involved factors that influence quality of life and living standard of elders in Chiangkhwan District, Roi Et Province, where a number of elders are growing steadily. The results this study, which focused on economic and traditional factors, would be used as an approach to promote health prevention, treatment and enhance living standard of elders in Chiangkhwan District, Roi Et Province. The study will also provide a mean to prepare for "Aging Society" situation and enable elders to be independent, reduce their dependency on other age groups, alleviate public health problems and save national budget.

1.2 Research questions

1.2.1 What is the personal data, basic needs, social environmental factors and elderly health factors of elders in Chiangkwan District, Roi Et Province Thailand ?

1.2.2 What is the level of quality of life of elders in Chiangkhwan District Roi Et ProvinceThailand?

1.2.3 What is the factors that influence quality of life of elders in Chiangkhwan District, Roi Et province Thailand?

1.3 Research objectives

1.3.1 To study personal data, basic needs, social environmental factors and elderly health factors of elders in Chiangkhwan District, Roi Et Province.

1.3.2 To determine level of quality of life of elders in Chiangkhwan District, Roi Et Province Thailand.

1.3.3 To study factors influencing quality of life of elders in Chiangkhwan District, Roi Et Province Thailand.

1.4 Conceptual framework of research

| **Independent variables** | **Dependent variables** |

Personal data
Gender, Age, Marital status, Average monthly income, sufficient monthly income, Professional, Physical work and Status in community

Human basic needs
- Food
- Residence
- Clothes
- Medical treatment

Quality of life
- Physical
- Mental
- Social
- Environmental

Social environmental factors
- Sources of information
- Relationship with the community
- Participation with the community

Elderly health factors
- Illness and medical treatment
- Elderly general health

Figure 1: Conceptual framework

1.5 Research limitations

1.5.1 As the samples of this study are elderly who usually unclear eyesight, the interview will be conducted with them.

1.5.2 Data collection by training assistant with make interview handbook to provide convenience and understanding to researchers.

1.6 Operational definitions

The United Nations has definition as bellows:

1.6.1 Elder refers to a person (both male and female) who was 60 years old and over.

1.6.2 Elder in early period refers to a person (both male and female) who is between 60 - 69 years old.

1.6.3 Elder in late period refers to a person (both male and female) who is 70 years old and over.

1.6.4 Quality of life for elders refers to (WHOQOL-BREF,1997) a life with completed physical, psychological and social well-beings that enable elders to live their life in suitable condition and conforming to the environment and the Thai culture. The quality of life can be divided into 4 domains as follows:

1.6.4.1 Physical domain refers to physical experience of an individual that affected daily life such as the acknowledging of perfect physical condition, feeling of comfort, painless, ability to manage physical pain, possession of strength to live, feeling independency, physical movement, ability to conduct routine activities and work without reliability on drug or other medical treatment etc.

1.6.4.2. Mental domain refers to psychological experience such as acknowledgement of positive feeling toward oneself, self identity, self-esteem, self confidence, thoughts, memory, concentration when making a decision, ability to learn, ability to handle sadness and worry, acknowledgement of one's belief that has impact on daily life including spiritual belief and religions, meaning of life, and other superstitious that give positive effect in running daily life and overcome difficulties etc.

1.6.4.3. Social domain refers to experience of relationships between an individual and others, experience of receiving assistance from and giving to others in

the society. This also includes experience of sexual feeling, or having sexual relationship.

1.6.4.4.Environmental domain refers to perception of the environment which impact daily life such as acknowledging that people has free will to live without confinement, a sense of security and stability, to live in positive physical environment, pollution- free, convenient communication, receive financial benefits, access to health service and social welfares, opportunity to consume information, and learn new skill, right to engage in recreational activities and hobbies etc (questionnaire of WHOQOL-BREF,1997).

1.6.5 Quality of life can be divided into 3 levels of needs which are:

1.6.5.1 Low level refers to a situation where an individual's physiological and safety needs are being satisfied.

1.6.5.2 Moderate level refers to a situation where an individual's physiological, safety, love, and self-esteem needs are being satisfied. When these needs are met, the individual will be contented, have self confidence, and self worthiness.

1.6.5.3 High level refers to a level where an individual achieve self actualization needs. The individual would live a satisfied and contented life. It is because, apart from all the 4 basic needs of both physiological and psychological aspects are being met, the individual is able to express his/her ability. In this regard, whether an individual belong to any particular level of needs depends on the individual's physiological and psychological needs (Boonsanpan.and Boorakam, 2004).

1.6.6 Personal Data refer to gender, age, marital status, income, income adequacy, professional, physical work, status in community. The details are:

1.6.6.1 Gender refers to gender of elder which can be classified as male or female.

1.6.6.2 Age refers to elder's age from 60 years and above

1.6.6.3 Marital status refers to an elder's marital status which can be classified as single, married, divorced or separated.

1.6.6.4 Income refers to income that an elder is expected to earn every month per household.

1.6.6.5 Sufficient monthly income refers to expected balance of income and expense of an elder. It can be classified as insufficient income, sufficient income but not enough for saving, sufficient income with saving.

1.6.6.6 Professional refers to elder's works that generate income for the elder. It can be classified as elder with/without professional.

1.6.6.7 Physical work refers to using physical strength to do work or activities other than daily routine activities. It can be classified into 3 groups which are conducting physical work that appropriate to age, do hard physical work, do very hard physical work.

1.6.6.8 Status in community refers to when an elder is being officially chosen to hold a social position. It can be classified into 2 groups which are an elder who hold a position and an elder who does not have a position in the community.

1.6.7 Human Basic needs refer to things that satisfy physiological needs of an elder such as food, residence, clothes and medical treatment. The details that are derived from questionnaire (Boonsanpan.and Boorakam, 2004). are:

1.6.7.1 Food refers to the elders' access to nutritious diet that satisfies the body's needs, hygienic food and sufficient clean water.

1.6.7.2 Residence refers to durability of the accommodating house, sufficient facilities and density.

1.6.7.3 Clothes refer to elders' access to sufficient clothes according to their needs, age and occasion.

1.6.7.4 Medical treatment refers to ability to look after one health or seek for medical treatment from a hospital and sufficiency of number of hospitals.

1.6.8 Social environmental factors refer to elder's social environmental conditions such as consumption of information, relationship and involvement with the community. The details of these factors were:

1.6.8.1 Sources of information refers to elder's access and opportunity to; earn knowledge from various sources of information such as radio, television etc.

1.6.8.2 Relationship with the community refers to the relationship between an elder and other people in the same community. Examples of relationships are having conversations, providing assistance, friendship, no conflict between elders and others.

1.6.9 Elderly Health factors (Boonsanpan.and Boorakam, 2004) refer to how an elder conduct activities relating to health in their daily life and during illness, personal illness and receiving treatment. The details of the factors are:

1.6.9.1 Bath refers to elders' ability to bath by themselves.

1.6.9.2 Wearing clothes refers to elders' ability to wear clothes by themselves**.**

1.6.9.3 Use of sanitation refers to elders' ability to use sanitation by them.

1.6.9.4 Travel refers to elders' ability to use public transport, hired transport or can drive their own vehicles such as bicycle, motorcycle by themselves.

1.6.9.5 Walk and body balance refers to elders' ability to stand upright and balance their body without any assistance.

1.6.9.6 Walk on steep slope refers to elder's ability to walk on the steep slope without any assistance from people or equipments.

1.6.9.7 Exercise refers to elders' ability to exercise by walking or using exercise stick for at least 3 days per week.

1.6.9.8 Dental problem refers to elders' contraction of dental diseases such as toothache, loose tooth on a regular basis and need to get frequent treatments.

1.6.9.9 Eyesight refers to elders' contraction of eye diseases such as unclear vision or used to receive treatment for eye diseases.

1.6.9.10 Hearing refers to elder with deafness or hearing problems.

1.6.9.11 Urination refers to elder experience urine incontinence, or frequent urination.

1.6.9.12 Normal bowel movement refers to elder has a bowel movements per day or two day or on usual basis.

1.6.9.13 Good memory refers to elders' ability to remember names of the people around them

1.7 Expected benefits from research

1.7.1 To learning personal data, basic needs, social environmental factors and elderly health factors of elders in Chiangkwan District ,Roi Et Province.

1.7.2 To understanding the factors that influencing quality of life of elders in Chiangkwan District, Roi Et Province.

1.7.3 To applying the study's result for an improvement of research capability and services for elders.

1.7.4 To development other researches of elders.

1.7.5 Using information to be provided strategic planning of elders.

CHAPTER II
LITERATURE REVIEW

This research is about "Factors influencing quality of life of elders in Chiang kwan District Roi Et Province, Thailand". The researcher has studied and gathered related documents and researches to be approaches for the study. The details of the research are as follows:

2.1 Concept and theory on elders

2.1.1 Definition of elders

2.1.2 Transformation in elders

2.1.3 Theory of aging

2.2 Concept and theory of quality of life

2.2.1 Definition of quality of life

2.2.2 Theory of quality of life

2.2.3 Concept of quality of life of elders

2.2.4 Factors that influence quality of life

2.3 Related researches of quality of life

2.4 Concept and assumption of the research

2.1 Concept and theory of elders

2.1.1 Definition of elders

The United Nations (1980) gives a definition of elder as a person who is 60 years old and above. The age of a person (60+ years) is used as main criteria.

The National Statistical Office, the Prime Minister's Office (1998) refers an elder person to a person, both male and female, who is 60 years old and above. In the study and collection of information on elderly population, elders are classified into two groups as early period elder and late period elder.

Early period elder refers to a person, both male and female, who is between 60-69 years of age.

Late period elder refers to a person, both male and female, who is 70 years and above.

2.1.2 Transformation in elders

2.1.2.1 Physiological transformation. (Wasri 2000)

- **Skeletal system:** would reduce protein production at the end of cartilage bone which acts as lubrication for joint. If an elder were over-weighted, the joint would not be able to support the body's weight. The joint in the concentrated area would degrade, hurt and bend out of shape. There would be less repairment at intervertebral disc in the spine. Intervertebral disc would be dryer and shrink which make part of it pressing on nerve roots; this would make the nerve inflamed. An elder would experience anguish and numbness at spine, waist, neck, legs and arms. An elder's would get shorter due to Kyphosis.

- **Muscular system:** muscle's performance,flexibility,endurance, and recover ability would be less efficient. This would make an elder to feel weary and sprain in the muscle easily.

- **Brain and Nervous System:** deterioration of brain function, memory lapse, slow respond to stimulus and movement, doddering, unable to hold body balance, prone to fall and accident especially in accommodation and bathroom. Somatosensory system: Change in visual ability, blur vision, Cataract, weakened eye muscle, prone to dizziness, degradation of auditory nerve, deafness, impairment of the sense of smell/anosmia, and Dysgeusia/loss of taste.

- **Change in digestive system:** Loss of teeth, difficulty when consuming food, salivary gland dysfunctional, stomach produce less hydrochloric acid and lead to malfunction of digestion system, flatulence, malnutrition, anemia, failure of liver and pancreas, prone to diabetes, abnormal bowel movement, and constipation.

- **Respiratory System:** lung degradation, dysfunctional of lung expansion and contraction, prone to exhaustion, larynx dysfunction, raspy, chest muscle weakened lead to difficult in breathing.

- **Cardiovascular system:** The heart muscle will be weaker, inflexible, high blood pressure; cholesterol starts to accumulate in the wall of the artery, prone to heart disease.

- **Urinary System:** kidney dysfunctional, kidney will rid lower rate of waste materials but produce excessive urine and cause, frequent urination, weakened bladder muscle, Benign prostatic hyperplasia, Dysuria symptom.

- **Endocrine System:** Female will experience decrease in sexual desire. For male, Gonad gland will start to dysfunction but entirely stop or lose sexual desire. Male would experience slower hormone decline process than female.

2.1.2.2 Psychological Changes

Psychological changes in elders are results of physiological transformations such as degradation of body functions, illness, anxiety, losing a position as leader in the family, loss of spouse, close relatives or friend. These factors affect elders mentally and leave them with depression and desolation.

2.1.2.3 Social and Cultural Changes

Elders are affected by various social and cultural changes such as retirement, losing a position as leader in the family, abandoned and is left to live alone without caretaker. Sometimes, elders are left with grandchildren as the young ones need to work outside or move to work in the city. In the present society, because of advancement in educational system, the younger generations are having higher education and starting to feel that elders are ignorant and tend to have less respect toward the elders.

As a result of physiological, psychological and social changes, elders would have problems and needs that are different from other groups. The causing factors are health problems, illness, nervousness, emotionally stress. Elders would feel mistrust and disappointment in family members as they have to move out to raise a new family or work and leave the elders alone. The social changes such as loss of work, death of spouse, intimates or close friends can adversely affect elders. Some elders are unable to live with children and have to be put in a nursing home.

The need to be independent refers to desire to live a normal life, as similar to general people, ability to think and do freely without relying on others.

The need to learn new knowledge and experience in the society so as to adjust oneself to their age and the environment.

With these problems and demands, elders need special attention as well as physical, mental and social care than other age groups. The care should be

provided and adjusted according to each particular needs, problem conditions and society. This would enable elders to live peacefully with their families and the society, feel contented and raise quality of their life. (Kinkinsan and Thomas, 1991)

2.1.3 Theory of Aging

2.1.3.1 Theory of Aging (Rinthara, 2011):

- **The Wear and Tear Theory:** this theory believes that people get old from destruction of cells from "wear and tear" or overuse or misuse them. People tend not to take good care of their health, for instance, not enough rest, not having good nutrition, having some contamination; or get affected. These cause deterioration of cells similar to long-term use of automobiles. Thus, each person's life longevity is dependent on one's health behaviors.

- **The Neuroendocrine Theory:** as people age, various hormone levels will decrease. In women, their estrogen and progesterone will decrease, while in men, their testosterone will decrease. In males and females, their growth hormone, cortisol, melatonin and more will decrease. These hormones have main effect to the function of cells and many other organs. With the decrease of hormones, one's health gets worse as repair function of the body tends to decline.

- **The Genetic Control Theory:** it is believed that 'genes from one's genetics' is the determinant of one's longevity and one's race. For instance, having 'record of disease caused by genes' transmitted by blood will make an unequal longevity of one person. People with diabetes mellitus family history will have inferior genes and can transmit to their off springs who will tend to have diabetes mellitus easier than others.

- **The Free-Radical Theory:** this theory tells about free radicals as it is believed that free radicals can be caused by many reasons. For example, it can be caused by sunlight, by some chemical substances, etc. which destroys cells, or deteriorate the cells by damage and disturb the creation of polymer. Polymer is the genes in synthesizing protein. These causes also disturb the creation of collagen and elastin. Free radicals can be compared as the erosion of steel part of the car which erodes the body of human. Nowadays, there is a solution by free radicals in a numerous way which is called anti-oxidants, ie, vitamin C, vitamin A, CoQ10, etc. to prevent aging.

- **Telomerase Theory of Aging:** when one gets older, there is a division of cells at all time for their own growth. Chromosomes in genes plays a key role. Scientists found that in chromosomes will have telomeres which determines the role of strength of the chromosomes. It is found that the more one gets older, the more cells will divide themselves. The length of telomeres will get shorten, thus the less the strength of the cells. The final stage is the deterioration of the cells. It is also found that such the process relies on the enzymes telomerase as to lead the dividing of the cells. In research, it is found that cancer cells will have a great deal of telomerase enzymes and cells will get divided at all time in a strange manner that it becomes the cancer cells. There has been a trial of using the substances to prevent the function of telomerase enzymes and found that it can prevent and treat the cancer in the near future.

Theory of aging (Intharasuksri 1983):

- Aging is a result of loss of water in body organs.

- Aging is a result of incoherent function of each organ.

- Aging is a result of accumulation of toxin, such as illness, food and pollution, in human body.

- Aging is a result of abnormality in chemical substance around cell in our body.

- Aging and degradation as a result of abnormality of internal organ, imbalance of enzymes in our body.

- Aging as a result of malfunction of liver and kidney that unable to remove toxins in our body.

- Aging as a result of abnormal elements that dissolved in the liquid in our body's cell.

2.1.3.3 Activity Theory: elaborates fundamental activities on three main beliefs.

- Elders' involvement in activities as a result of the elders' ability to control and behave themselves and create new situation to replace the lost ones. For example when elders face with loss of intimates or loneliness, they would try to engage themselves in activities to keep themselves occupy.

- Elders' involvement in activities as a result of the elders' desire for acceptance from the society. This desire is always in every human being. Thus, when elders cannot fulfill this demand, they have to find something to replace them. Elders' involvement in activities as a result of the elders' belief that the activities can replace their responsibilities in former workplace, duty to look after their children and others. If elders were able to engage in activities with others, they will feel that they are worthy in that society. (Janeobrom,1998)

2.1.3.3 Accidental or "Wear-and-tear" Theory: This theory states that aging is a phenomenon that can occur anytime, as similar to contract a disease, or meet with an accident, which make organs deteriorate. Individual that face with stress from daily life or from work or complications would tend to have wrinkles earlier than those with less stress and burden, whom live healthier life.(Chootho,1982)

2.1.3.4 Role theory: This theory suggests that elders will live a good status if they are wealthy and contribute to the society. The elders may have physical dysfunctional but the involvement in various activities can replace the loss and win acceptance from the society and make contribution to the society.

2.2 Concept and theory of quality of life

2.2.1 Psychological Concept of Individual on quality of life

Quality of life of an individual is satisfaction to self demand (Nawachinda, 1991)

If an individual has high satisfaction with the response to the physical and emotional needs, the individual would feel that he/she has high level of quality of life. On the other hand, if an individual has low satisfaction with a situation with the response to the physical and emotional needs, the individual would feel that he/she has low level of quality of life. These physiological and psychological needs are fundamental factors of quality of life, which would be different for each individual.

According to Maslow's hierarchy of needs theory (Cheery, 2009), there is no definite rule or criteria used to measure an individual's satisfaction from the response of demand due to each individual's particular situation and background. People who live in rural area may satisfy with their living condition. With their fundamental needs being met, they may feel that they already have better quality of

life than others as they are surrounding with environment that lead to their happiness. In this regard, the demand of an individual is a condition that constantly changes. Definitions of quality of life according to this concept such as:

UNESCO (1980) refers to quality of life as living with satisfaction (happiness, contented) of vital needs which are the most important aspects of an individual.

Sharma (1988) refers to quality of life as a set of complex concept as it is about satisfaction which is a result of getting response to emotional and social demand in micro and macro level.

Kanthasewee (1983) gave definition of quality of life as living standard of human according to the living factors which are physically, emotionally, socially, thoughts and mind.

Quality life is living condition that can appropriately, according to the circumstances, meet with self expectation in according to rules and regulations, tradition, and acceptance from the society as a whole. The individual must prepare to develop and adjust oneself together with the society.

From the above mentioned concept, it can be summarized that quality of life refers to living standard where all the physical, psychological, emotional and social needs are met appropriately according to the change in society.

2.2.2 Concept on physical and environmental aspects is an evaluation of quality of life or determination of relationship in the society of an individual by others. The definitions are:

Udomsak (1973) gave definition of quality of life as health quality of society, economy, education and religions. Each individual will have their own criteria according to their particular needs. The demand for quality of life can vary through time and condition.

Panchapong (2004) gave definition of quality of life as a life that has no burden and imposes no problems to the society. It is a perfect life physically and emotionally with sufficient economic support in appropriate social and political environment and social value. The individual must be able to suitably solve problems at hand and rightfully achieve his/her objective under available tools and resources.

From the above mentioned concept, it can be summarized that quality of life refers to living standard that all the physical, psychological, emotional and social needs are met appropriately according to the change in society.

2.2.3 World Health Organization Quality of Life (WHOQOL)

World Health Organizationof quality of life (WHOQOL,1996) divided in 6 domains:

1.Physical domain, to perceived physical condition of the person. that affect daily life such as perception, strength of body condition , perception of pain does not feel comfortable, manage the pain of the body, perception of power in daily life Perception of sleep and rest including to the perception of sex. Recognition of these affect daily life.

2.Psychological domain was to recognize their own mental state, perceived as positive feelings toward their image of themselves. Recognition in the sense of pride in themselves. Perception in self-confidence Recognition memory in my mind for meditation decision-making and ability to learn their stories. Awareness in dealing with sadness and worry.

3. The level of personal independence, the sense of freedom that does not rely on others .The perception of ability to moving by themselves, ability to perform daily activities, ability to work and perception that they do not have rely on drugs or the other medical treatment.

4. Social relations, the relationship between perception of self and others. Awareness on how to get help from others in society. Perception that he has been a help to others perceived emotional and sexual.

5.The environment, the perception of the environment that effected to daily life perceived that they had no independent life captured independent and secure detention has not been a stable, secure life lived in a good social environment on pollution. The convenient transportation have the financial resources. The location of health services and social work to getting information or practice skill. Perceived that they recreate and leisure activities.

6. The personal confidence that effect for daily life as perceived that they believed in soul and religion the meaning's life positive confidence to against obstacle

The Department of Mental Health, ministry of Public Health, Thailand (Mahutanirunkul, et.al.,1997) developed the short form of   questionnaire

(WHO QOL-BREF,1997) which contained 26 questions ,comprising one item from each of 24 facets plus one item to measure "overall quality of life" and another to measure "general health"

Quality of life tools measure short series of World Health Organization in English(WHO QOL-BREF,1996) to (WHO QOL-BREF-THAI, 1997) was reduced to 4 consist of (Somrongthong, 2004):

1.Physical domain WHOQOL- BREF consist of 7questions:

1.1) To what extent do you feel that physical pain prevents you from doing what you need to do.?

1.2) Having enough energy for every day life ?

1.3) Satisfaction with their sleep?

1.4) Satisfaction with their ability to perform daily living activities?

1.5) Need for medical treatment to function in their daily life?

1.6) Satisfaction with their capacity for work?

1.7) Ability to go around able to get around by themselves?

2. Psychological domain WHOQOL BREF consist of 6 questions:

2.1) Feeling enjoy life?

2.2) Ability on the concentration about their work?

2.3) Satisfaction with themselves?

2.4) Acceptance of bodily appearance?

2.5) Having frequently of negative felling?

2.6) Feeling life is being meaningful?

3. **Social domain** WHOQOL- BREF consist of 3 questions:

3.1) How satisfied are you with your personal relationships?

3.2) How satisfied are you with your sex life?

3.3) How satisfied are you with support you got from your friends?

4. **Environmental domain** of the WHOQOLBREF consist of 8 questions:

4.1) Feeling safe?

4.2) Satisfaction with their living place?

4.3) Money and their need?

4.4) Satisfaction with their access to health services?

4.5) Availability on the day to day information needed?

4.6) Having the opportunity for leisure activities?

4.7) Rating of the healthy of their physical environment

4.8) Satisfaction with their transportation?

According to Maslow's Needs Theory (Cheery, 1954), human's basic needs, which are factors of quality of life, can be classified as:

2.2.3.1 Physiological Needs: This needs belong to the lowest level. Maslow classified these needs as the most fundamental needs which are food, air, water and shelter. These factors are literal requirements for human survival. (Such as food and accommodation).

2.2.3.2 Safety Needs: The need for safety is in the second level of Maslow's Hierarchy of Needs. These needs come after physical needs are relatively satisfied. Safety needs refer to safe environment with no physical and emotional threat.

2.2.3.3 Social Needs: is the third layer of human needs in accordance with Maslow's hierarchy. Social needs refer to a desire for a sense of belonging and acceptance in the society.

2.2.3.4 Esteem Needs: is the fourth level of human basic needs. These needs refer to an individual's desire for self-esteem, to be admired and respected by others, and have reputation.

2.2.3.5 Self-Actualization Needs: are in the highest level of human basic needs. An individual would always look for opportunity to be creative, independence and self responsibility in his/her work. The need for self-actualization is the desire to achieve one's objective by utilizing one's ability, skill and potential.

From the theory above, it can be summarized that quality of life of an individual depend on whether his/her physical and emotional needs are being met. Quality of life can be classified into 3 levels which are poor, moderate and high level.

2.2.4   Factors that influence quality of life

2.2.4.1 Personal attributed factors**:** marital status, income, income adequacy, professional, physical work, and status in the community.

2.2.4.2 Human basic needs consisted of variables were , residence, clothes, and medical treatment.

2.2.4.3 Family factors such as family characteristics, family income, and involvement in family activity, family support, and family problems.

2.2.4.4 Environmental and social factors consist of variables which are consumption of information from various sources, relationship with community**,** involvement in community

2.3 Related researches

There are many researches that conduct study on factors that influence quality of life of elders. Some of them are:

Palangrit (2004) made a research on development of living standard of elders by individual, family and community in Phra Nakhon Sri Ayutthaya province. The study found that evaluation of quality of life of elders consists of 5 areas which are physical, psychological, environmental, social relationship, and satisfaction. The 16 independent variables used in the study can define variances of physical, social relationship, environmental, psychological, and satisfaction with 33.8%, 17.9%, 13.2%, 9.7% and 9.3% respectively. The 12 independent variables have statistical significance (p-value) of 0.05 to at least 1 aspect of quality of life of elders. The development approaches of quality of life that individual suggested are preparation on health knowledge and practice since young to older age. Preparation on financial matter: teaching an individual to save money into accumulated fund since working period. This will enable the individual to be financially independent in old age. Lastly, an elder should be active in participating in family and community activities. At family level, younger generation should treat elders with respect, give them love, warmth, support and care. Family members should have knowledge and learn how to practice health-treatment so as to provide advice and beneficial information to elders. They should also improve facility in the house so as to be suitable for the elders. In addition, they should support and encourage elders to maintain their roles and

involvement in family activities and community. At the community level, we should emphasize on strong community, by providing and encourage leaders and members of the community to jointly participate and contribute their ideas and strength according to demand and lifestyle. The community should set a good example, focus on proactive implementation, and improve knowledge and cooperation, to enhance quality of life in elders.

Pirachapan (2000) conducted a study on a research to develop quality of life of elders in the Thai society regarding dwelling and environmental aspects 1996 - 1998. Results of the study showed that most of elders' dwellings do not particularly equip with facility that suit the elders. However, the dwelling was made in the condition that the dwellers were in their healthy period. Most of the elders were living with their family or have children that they believe they can stay with at the end of their life. Elders prefer to live in a peaceful, close to nature environment, among loving family and relatives. They prefer single detached house with sufficient space and area, not too large but not stuffy and equip with facilities necessary for living. The community that elders prefer to dwell in is community with service that provide better living standard with social services such as education, hygiene, relaxation, safety from natural disaster and human threat. Elders prefer knowledge on welfare for dwelling and how to arrange house to be in convenient, safe atmosphere. The media that elders prefer to use are ranging from the most prefer, television, radio, among the seminar and the conversation of elders

Panthuvet and Limworawan (2003) conducted study on quality of life of elders in elderly health promotion club, Boromarajonani College of Nursing, Ratchaburi. The study is a descriptive research with an objective to determine factors that affect quality of life of elders in elderly health promotion club, Boromarajonani College of Nursing, Ratchaburi. The population factors are gender, age, marital status, and personal illness. Social and economic factors are educational background, monthly income, debt burden. A sampling group consists of 100 members which were both male and female elders in elderly health promotion club, Boromarajonani College of Nursing, Ratchaburi. Information collecting tools includes questionnaire with two sections: personal information and measure form the quality of life. The results are analyzed from computer program to determine percentage, average value,

standard deviation, stepwise multiple regression. It was found that variable that can be used to forecast quality of life is debt. Thus, it is necessary to provide education for elders to learn how to generate their own income to help them clear debt and improve their living quality.

A majority of these researches agreed that quality of life of elders depend on individual, living condition, and environment. To be able to live with their child and grand child, to be accepted and involved in the society, have sufficient income, have opportunity to consume information and interaction with other elders in the same age. Therefore, the researcher has determined factors that influence quality of life of elders as personal attribution, human basic needs, environmental and social factors.

2.4 Concept and assumption of the researches

From the concept and theory, the researcher has chosen several factors which are expected to influence the quality of life of elders. These factors are personal attribute factors, human basic needs, environmental and social factors. Chiangkhwan District is located 18 kilometers away on the eastern side of Roi-Et province. It was being designated as District in 2008. Chiangkhwan District has low-lying area. It is the only area in Roi-Et Province that have the flood for along times every year. There was no hospital in the area. Chiangkhwan consists of 6 districts which are Chiangkwan, Prathad, Prachao, Plabpla, Moomon and Kuang. There are 7 public health offices in Chiangkhwan District Roi Et Province. Chiangkhwan was upgrade to "Chiangkhwan District" the last number 20 in 2009. The total population of Chiangkhwan are 28,848, out of which 3,331 people (10.5%) are elders.

Independent variables consist of four aspects as below:

- Personal data consist of the following variables: gender, age, marital status, average monthly income, sufficient monthly income, professional, physical work and status in community.

- Human basic needs consist of the following variables: type of shelter, clothes, medical treatment.

- Social and Environmental factors consist of the following variables: consumption of information from various sources, relationship with community, and involvement in community.

- Health factors consist of the following variables: bath, wearing clothes, use of sanitation, bowel movement, urination, travel, body balance, exercise, dental care, eyesight , hearing care and memory.

Dependent variables consist of four aspects of quality of life as below:

- Physical
- Psychological
- Social
- Environment

CHAPTER III
RESEACH METHODOLOGY

3.1 Research Design

This study was a cross-sectional Descriptive.

3.2 Study Area

The study area was Chiangkhwan District, Roi Et Province, Thailand.

3.3 Study Period

1 June 2010 to 30 July 2010 was data collection time.

3.4 Population and Sample

The target population of this study was those elderly aged 60 year and over who had their names registered in Chiangkhwan District area. The details of the population was:

- Elderly aged 60 years and over, both males and females.
- No problem speaking and hearing and memory impairment.
- Live in the targeted area for more than 6 months.

For the population 3,331 elders who were 60 years old and over, both males and females, were sample for this study as below:

- Kuang sub-district   Males (332) and Females (417)
- Chiangkhwan sub-district   Males (290) and Females (343)
- Plabpla sub-district   Males (285) and Females (355)
- Prathad sub-district   Males (195) and Females (258)
- Prachao sub-district   Males (191) and Females (242)
- Moomon sub-district   Males (80) and Females (343)

3.5 Sampled population

The sample population for this study was 400 of the elders aged 60 years or over, both male and female ,the sampling method as follows**:**

3.5.1 Sample size calculation.

The sample size was calculated by using (Yamane, 2008) on pollution. The convenient transportation Have the financial resources. The location of health services and social work To getting information or practice skill. Perceived that they recreate and leisure activities.

Siljalu (2008) at the 95% confidence interval and alpha error at 0.05. The sample size calculation was below:

$$n = \frac{N}{1 + Ne^2}$$

where
- n = sample size
- N = population number
- e = sample error, which was set at 0.05

Substitute our value into the formula:

$$n = \frac{3,331}{1 + 3,331\,(0.05)^2}$$

$$n = \frac{3,331}{1 + 3331\,(0.0025)}$$

$$n = \frac{3,331}{1 + 8.32}$$

$$n = 357.40$$

$$n \approx 358$$

Therefore, the sample size was 358 for this study. The author added 10% to compensate drop-out cases, so the total number was 400.

3.5.2 Sampling method

Systematic sampling was used in this study method for this study by following steps:

3.2.2.1 Rearrange the name of the targeted population according to household and village in all 6 sub-districts .

3.2.2.2 Randomly select elders from the targeted population from the name list in each village according to each sampling interval (the interval = 3,331 / 400 = 8.33) to acquire number of samples in proportion as specified and conducted an

interview with the elders in the sampling group. If the selected elder had a problem speaking , hearing and memory, the prior or latter elders would be selected instead.

Inclusion criteria

- Elderly aged 60 years and above, both male and female.
- Lived in the target area for more than 6 months.
- Registered name in the health center.
- No problem to speaking, hearing and memory.
- Understanding Thai language and able to answering the questions.
- Do not treat a patient in the hospital or accommodate at home.
- Ability to traveled to the interview at the health center.
- Satisfied with participate in the research.
- The elderly who were not mental disease.
- Disabled elder were not physical.

Exclusion criteria

- Is not an elderly 60 years and over, both males and females.
- Did not in the targeted area for more than 6 months.
- Have speak, hearing and memory impairment.
- Do not answer the questions.
- Accommodation treat a patient in the hospital or at home.
- Do not willing in the research.

3.6 Measurement Tools

Independent Variables consist of Personal data, human basic needs, social - environmental factors and health factors.

Part1: Questionnaire for personal data are gender, age, marital status, income, income adequacy, professional, physical work, and status in the community.

Part 2: Questionnaire for human basic needs are food, residence, clothes, medical treatment.

Part 3: Questionnaire for social environmental factors are consumption of information, relationship with community, and involvement in community.

Part 4: Questionnaire for health factors.

Part 5: (WHOQOL-BREF,1997): physical, psychological, social and environmental .

Dependent variables consist of:

- Physical,
- Psychological
- Social
- Environmental.

Create questionnaire tools for variable measurement by

Part 1: For personal data questionnaire was fill-in-the-blank and multiple choices format. It consisted of 8 items which are related to gender, age, marital status, income, income adequacy, professional, physical work, and status in the community.

Part 2: Questionnaire For human basic needs questionnaire were related to food, residence, clothes, medical treatment of elderly aged 60 year and above who were living in Chiangkhwan District, Roi Et Province,Thailand. For this research, the researcher has reedited questionnaire of Boonsaenpaen and Buracam (2004) thesis but maintained the main content. The questions as below:

- Food   3 items
- Residence   4 items
- Clothes   1 item
- Medical treatment   4 items

Scores would be given according to the following criteria

Positive question

- Extremely true   3 scores
- Partly true   2 scores
- Untrue   1 score

Negative question

- Extremely true   1 score
- Partly true   2 scores
- Untrue   3 scores

Part 3: For social environmental factors questionnaire consisted of 11 items which are related to consumption of information, relationship with community, and participate in the community.

- Sources of information   1 item
- Relationship in the communication   5 items

Scoring criteria are :

- Often = 3 scores for practice that carried out 4-6 times per a week
- Sometimes = 2 scores for practice that carried out 1-3 times per a week
- Never = 1 score for did not practice 1 score

Participate with the community   total 5 items

Scoring criteria are :

- Often = 3 scores for practice in4-6 times per a week
- Sometimes = 2 scores for practice in 1-3 times per a week
- Never = 1 score for did not practice 1 score

Part 4 Elderly health factors

- Illness and medical treatment   total 3 items
- General elderly health condition   total 15 items

Scoring criteria are :

Positive question

- Extremely true   given 3 points
- Partly true   given 2 points
- Untrue   given 1 points

Negative question

- Extremely true   given 1 points
- Partly true   given 2 points
- Untrue   given 3 points

Part 5 WHOQOL-BREF composed with physical, psychological, social and environmental aspects total 26 questions

Scoring criteria are :

	Not at all	A Little	Moderate	Very much	Extreme
Negative question	5	4	3	2	1
	Not at all	A Little	Moderate	Very much	Extreme
Positive question	1	2	3	4	5

Tool quality inspection

The researcher has specified 2 types of tool quality inspection for this research.

3.5.1 Content Validity: The researcher submits the questionnaire to be inspected by qualified inspectors and thesis advisor. The examination committee would draft the thesis.

Seek for advice from 3 qualified advisors on the questionnaire. Check for Content Validity, Construct validity and suitability of the content before using them with the sampling group.

3.5.2 The researcher would test the elderly aged 60 years and over, both males and females, who were lived in Junghan District Roi Et Province, an area which has similar population as with the targeted area. 30 elderly would be tested. The results would be evaluated for Reliability by using Alpha Cronbach Coefficient = 0.80.

Confidence of questionnaire: Determine confidence of questionnaire by try out the questionnaire with the sampling group that has nearby characteristics with the targeted group.

Interpretation

Part 2: Human basic needs which questionnaire measurement as interval scale 3 levels, 12 questionnaires. Calculation for grouping the level of the point by maximum points minus minimum points divides by interval scale interpretation as below:

Human basic needs

The researcher divided the distribution data by interval:

(Maximum data – Minimum data) / interval

Food aspect : 3 Questionnaires

Untrue	1 - 3 scores
Partly true	4 - 6 scores
Extremely true	7 - 9 scores

Residence aspect : 4 Questionnaires

Untrue	1 - 4 scores
Partly true	5 - 8 scores
Extremely true	9 - 12 scores

Clothes aspect : 1 Questionnaire

Untrue	1 score
Partly true	2 scores
Extremely true	3 scores

Medical treatment aspect: 4 questionnaires

Untrue	1 - 4 scores
Partly true	5 - 8 scores
Extremely true	9 - 12 scores

Interpretation the question for Human basic need:

Untrue	average 1.00 - 1.66
Partly true	average 1.67 - 2.33
Extremely true	average 2.34 - 3.00

Part 3(1): Relationship with the community which questionnaire measurement as interval scale 3 levels, 5 questionnaires. Calculation for grouping the level of the point by maximum points minus minimum points divided by interval scale interpretation as below:

The researcher divided the distribution data by interval:

(Maximum data – Minimum data) / interval

Relationship with the community: 5 questionnaires

Never	1 - 5 scores
Sometimes	6 - 10 scores
Often	11 - 15 scores

Interpretation the question of relationship with the community:

Never   average 1.00 - 1.66

Sometimes   average 1.67 - 2.33

Often   average 2.34 - 3.00

Part 3(2): Participation with the community which questionnaire measurement as interval scale 3 levels, 5 questionnaires. Calculation for grouping the level of the point by maximum points minus minimum points divided by interval scale interpretation as below:

The researcher divided the distribution data by interval:

(Maximum data – Minimum data) / interval

Participation with the community: 5 questionnaires

Never   1 - 5 scores

Sometimes   6 - 10 scores

Often   11 - 15 scores

Interpretation the question

Never   average 1.00 - 1.66

Sometimes   average 1.67 - 2.33

Often   average 2.34 - 3.00

Part 4: Elderly general health which questionnaire measurement as interval scale 3 levels, 15 questionnaires. Calculation for grouping the level of the point by maximum points minus minimum points divides by interval scale.

Interpretation as follows:

The researcher divided the distribution data by interval:

(Maximum data – Minimum data) / interval

Elderly general health : 15 questionnaires

Untrue   15 - 24 scores

Partly true   25 - 34 scores

Extremely true   35 - 45 scores

After the study of distribution of data the criteria as follows:

Untrue	15 - 20 scores
Partly true	21 - 33 scores
Extremely true	34 - 45 scores

Interpretation question of elderly general health:

Untrue	average 1.01 - 1.66
Partly true	average 1.67 - 2.33
Extremely true	average 2.34 - 3.00

Part 5: WHOQOL-BREF questionnaire measurement as interval scale 5 levels, 26 questionnaires interpretation as follows:

Total Quality of life

Poor quality of life	26 - 60 scores	average 1.00 - 2.33
Moderate quality of life	61 - 95 scores	average 2.34 - 3.67
High quality of life	96 - 130 scores	average 3.68 - 5.00

Physical Domain (Questionnaires: 2,3,4,10,11,12,24)

Poor quality of life	7 - 16 scores	average 7.00 - 16.33
Moderate quality of life	17 - 26 scores	average 16.34 - 25.67
High quality of life	27 - 35 scores	average 25.68 - 35.00

Psychological Domain (Questionnaires: 5,6,7,8,9,23)

Poor quality of life	6 - 14 scores	average 6.00 - 14.00
Moderate quality of life	15 - 22 scores	average 14.01 - 22.00
High quality of life	23 - 30 scores	average 22.01 - 30.00

Social relationship Domain (Questionnaires: 13,14,25)

Poor quality of life	3 - 7 scores	average 3.00 - 7.00
Moderate quality of life	8 - 11 scores	average 7.01 - 11.00
High quality of life	12 - 15 scores	average 11.01 - 15.00

Environment Domain (Questionnaires: 15,16,17,18,19,20,21,22)

Poor quality of life	8 - 18 scores	average 8.00 - 18.67
Moderate quality of life	19 - 29 scores	average 19.67 - 28.67
High quality of life	30 - 40 scores	average 29.36 - 40.00

Interpretation question of Quality of life and 4 sub domain:

Poor quality of life	average 1.00 - 2.33
Moderate quality of life	average 2.34 - 3.67
High quality of life	average 3.68 - 5.00

Scoring criteria

Twenty-three questions were positive questions (No 1, 3, 4, 5, 6, 7, 8, 10, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25 and 26) while three question were negative questions (2, 9 and 11)

Interpretation

Quality of life 26-130 scores. If calculate total scores we can comparison criteria as below:

26 - 60 scores = Poor quality of life

61 - 95 scores = Moderate quality of life

96 - 130 scores = High quality of life

WHOQOL levels by Domain as below :

WHO Quality of life (Domain)	Poor quality of life	Moderate quality of life	High quality Of life
1. Physical	7 - 16	17 - 26	27 - 35
2. Psychological	6 - 14	15 - 22	23 - 30
3. Social	3 - 7	8 - 11	12 - 15
4. Environmental	8 -18	19 - 29	30 - 40
Overall quality of life	26 - 60	61 - 95	96 - 130

Physical: question 2, 3, 4, 10, 11, 12, 24

Psychological: question 5, 6, 7, 8, 9, 23

Social: question 13, 14, 25

Environmental: question 15, 16, 17, 18, 19, 20, 21, 22

Question 1 and 26 as indicator in quality of life group and total health that don't include 4 aspects.

Interpretation question
          Poor quality of life   average   1.00 - 2.33
          Moderate quality of life   average   2.34 - 3.67
          High quality of life   average   3.68 - 5.00

3.7 Pre - testing

The face - face interviews were protested the corrected and approved Questionnaire with 30 elders people who lived in Junghan District, Roi Et Province. Cronbach's Alpha Coefficient = 0.80

3.8 Data Collection methods

This research study on "Factors influencing quality of life of elders in Chiangkwan District, Roi Et Province Thailand", the researcher has specified steps for data collection as follows:

3.8.1 Created guideline for answering the questionnaire.

3.8.2 Submitted letter to Chiangkhwan district public health office and all 7 health centers.

3.8.3 Conducted quantitative data collection on the selected elders through questionnaire and cooperated from officers in health center and public health office who helped in conducting the interview.

3.9 Data Analysis

Using the SPSS program for data analysis with the following steps to change information from the interview and encoded it into number and enters them into program for statistic analysis.

3.9.1 Analysis for personal data: this part comprised of total 8 items which were gender, age, marital status, income, income adequacy, professional, physical work and status in the community. Descriptive statistic, frequency and percentage were employed.

3.9.2 Analysis for human basic needs: Social environmental factors and quality of life of elders, using frequency distribution table, percentage, average, and standard deviation.

3.9.3 Analysis for factors influencing quality of life of elders: using frequency distribution table, percentage, average, and standard deviation.

3.9.4 Analysis to determine correlation between personal data, human basic needs, social environmental factors and quality of life of elders Chi square analysis.

3.10   Ethical Consideration

3.10.1 Elders are the pillar of the society and social forces as they are valuable human resources who contribute to their family, community and society therefore they should be honored and admired.

3.10.2 Elders have the right to or not to join the research.

3.10.3 Their information was kept confidential.

3.10.4 Ethics review was requested from Chulalongkorn University.

3.11   Limitation

As the time for collecting data limited, the research confined sampling groups were the elders who lived in Chiangkhwan District Roi Et Province Thailand and the sampling group, then did not represent the total elderly population in Roi Et Province.

3.12   Expected Benefits & Application

Expected Benefits of this study was:

3.12.1 To learning the level of quality of life and factors influencing quality of life of elders in Chiangkhwan District, Roi Et Province,Thailand.

3.12.2 To using data based for individuals, governmental organization, and setting to planning to promotion and development health services as well as to develop quality of life of elders. In order to decrease cost benefit, reduce dependency and respect to the elders will have their long life by themselves.

CHAPTER IV
RESULTS

The research aimed to study on factors influencing quality of life of elderly in Chiangkhwan District, Roi Et Province, Thailand. The population of the study are.

- Elderly aged 60 years and over, both male and female.
- Lived in the target for more than 6 months.
- No difficult to speaking, hearing and memorization.
- Understanding Thai language and able to answer the questions.
- Satisfied with participation in the research.
- Disabled people are not physically.
- Not a mental illness under treatment.
- Not the being admitted in the hospital or home care.
- Ability to traveling and interviewing at the Health Center.
- Register name of the Health Center survey.

Sample sizes used were 400 people, used interviews questionnaire to collect 5 data which the analysis shows the following information.

4.1 Personal Data

4.2 Information related to human basic needs

    4.2.1 Food

    4.2.2 Residence disabled people are not physically

    4.2.3 Clothes

    4.2.4 Medical treatment

4.3 Social environmental factors

    4.3.1 Sources of information

    4.3.2 Relationship with the community

4.4 Elderly Health Factors

    4.4.1 Elderly illness and medical treatment

    4.4.2 Elderly general health

4.5 WHO QOL (Quality of Life)

    4.5.1 Physical

4.5.2 Psychological

4.5.3 Social

4.5.4 Environmental

4.6 Factors influencing quality of life

4.6.1 Factors influencing quality of life in aspect of personal data.

4.6.2 Factors influencing quality of life in aspect of information related to human basic needs.

4.6.3 Factors influencing quality of life in aspect of social factors.

4.6.4 Factors influencing quality of life in aspect of elderly health Factors.

The research's symbols:

The symbols for the convenience of the research are follows:

N	represents	Number of sample group
$\overline{X}$	represents	Mean
SD	represents	Standard deviation
χ^2	represents	Chi square distribution
p	represents	Probability value
*	represents	Statistical significance level of .05

4.1 General Data

Analysis of general characteristics of the sample of 400, it found that ratio between both males and females showed that females and males, (60 %, 40%) respectively their age range are classified between aged 60-64 years (35.25%),65-69 years (29.00%), 70-74 years (14.50%) 75-79 years (11.75%)and over 80 years (9.50 %). Average age is 68.74 years, with minimum age 60 years and maximum age 91years, more than (60.25%) are married and their average income was 3,221.75 Bath per month would which is sufficient for living but not for saving (42 %), almost sixty percent (56.25%) of the sample were still working all, most all of them indicated they are agriculturist in addition about (43.00%) of the respondents mentioned that their health condition are suitable of their age more than seventy percent (74.50%) did not hold as described any position in the community, as described in table 1.

Table 1: Number and percentage of respondents by personal data (n = 400)

General Data	Number	Percentage (%)
Personal Data		
Gender		
Female	240	60.00
Male	160	40.00
Age (Years)		
60-64	141	35.25
65-69	116	29.00
70-74	58	14.50
75-79	47	11.75
> 80	38	9.50
Mean = 68.74, S.D.= 7.05	Min = 60	Max = 91
Marital status		
Married	241	60.25
Widowed/ Divorce/separation	149	37.25
Single	10	2.50
Average monthly income		
0-2,000 Baht	229	57.25
2,001-5,000 Bath	128	32.00
> 5,000 Bath	43	10.75
Mean = 3221.75, S.D. = 4963.81	Min = 500	Max = 75,000
Sufficient monthly income		
Sufficient but not enough for saving	168	42.00
Insufficient	143	35.75
Sufficient and have some left for saving	89	22.25
Still working		
Yes	225	56.25
No	175	43.75
(Housewife=14, Agriculturist=95)		

Table 1:(Continued)

General Data	Number	Percentage (%)
Physical work		
Suitable to age	172	43.00
Not physical working	146	36.50
Not suitable for age	82	20.50
Status in the community (answer more than 1 choice)		
Not any status	298	74.50
Member of the village committee	48	12.00
Village health volunteer	20	5.00
Group or leader club	18	4.50
Others (Newspaper reporter.)	29	7.25
Human basic needs		
Food		
Untrue(1-3 scores)	-	-
Partly true (4-6 scores)	274	68.50
Extremely true (7-9 scores)	126	31.50
Mean = 5.94 , S.D. = 1.30	Min = 3	Max = 9
Residence		
Untrue(1-4 scores)	-	-
Partly true (5-8 scores)	36	9.00
Extremely true (9-12 scores)	364	91.00
Mean = 10.95 , S.D. = 1.31	Min = 7	Max = 12
Clothes		
Untrue(1 scores)	12	3.00
Partly true (2 scores)	52	13.00
Extremely true (3 scores)	336	84.00
Mean = 2.81 , S.D. =0.46	Min = 1	Max = 3
Medical treatment		
Untrue (1-3 scores)	-	-
Partly true (4-8 scores)	29	7.25
Extremely true (9-12 scores)	371	92.75
Mean = 10.76 , S.D. =1.32	Min = 4	Max = 12

Table 1 : (Continued)

General Data	Number	Percentage (%)
Relationship with the community		
Untrue (1-5 scores)	-	-
Partly true (6-10 scores)	24	6.00
Extremely true (11-15 scores)	376	94.00
Mean = 13.49 , S.D. =1.68	Min = 7	Max = 15
Participation with the community		
Not at all (1-5 scores)	7	1.75
Sometime (6-10 scores)	119	31.50
Often (11-15 scores)	274	68.50
Mean = 11.92 , S.D. =2.53	Min = 5	Max = 15
Elderly general health		
Untrue (15-20 scores)	-	-
Partly true (21-33 scores)	40	10.00
Extremely true (34-45 scores)	360	90.00
Mean = 38.37 , S.D. =3.72	Min = 21	Max 45

4.2 Information related to human basic needs

The table 2 explained about the information of human basic need such as food, residence, clothing and medical treatment which is considers as the life, found that the fundamentals of the life of respondent in Chiangkhwan District of Roi Et Province, Thailand. For the food aspect, over half (56.00%) of them still eating half-raw fundamental food, while (51.75%) had eaten beverage dairy products as a dietary supplement. Less than half (46.75%), of them drunk clean water by boiling the water. Most of them (93.00%) had lived in the target areas for more than 5 years, more than (92.50%) got information from television, and almost three in four of them (77.75%) of respondent were not living in the narrow crowed and limited dwelling. More than half (62.50%) of them did not have smoke and dust. Most (84.00%) of them had enough cloth to wear in the season. For aspect of health care when they get sick, the most (84.50%) of them received a proper service from the staff at health center. The

first service they selected to go for seeking care was health center(81.50%), Almost (74.50%) when they were ill ,they was taken care of their relative, about (51.25%) of them could maintain their health such as headache as table 2.

Table 2: Number and percentage of respondents by human basic needs (n = 400)

Human basic needs	Extremely true N (%)	Partly true N (%)	Untrue N (%)	Mean	Meaning
Food					
1. You eat half-raw minced beef, such as pickled fish.*	89(22.25)	224(56.00)	87(21.75)	2.01	Partly true
2. You drink milk as a dietary supplement for strong bones.	92(23.00)	207(51.75)	101(25.25)	1.98	Partly true
3. You drink clean water by boil water before drinking.	97(24.25)	187(46.75)	116(29.00)	1.95	Partly true
Residence					
4.You are the habitat of more than 5 years of durability.	372(93.00)	24(6.00)	4(1.00)	2.92	Extremely true
5. Your dwelling is equipped with sufficient facilities as TV.	370(92.50)	15(3.75)	15(3.75)	2.89	Extremely true
6. Your surrounding is always full of malodor, or filled with smoke or dust.*	250(62.50)	107(26.75)	43(10.75)	2.52	Extremely true
7. You live in limitation dwelling.*	303(75.75)	43(10.75)	54(13.50)	2.62	Extremely true

Table 2 :(Continued)

Human basic needs	Extremely true N (%)	Partly true N (%)	Untrue N (%)	Mean	Meaning
Clothes					
8. You have sufficient seasonal clothes	336(84.00)	52(13.00)	12(3.00)	2.81	Extremely true
Medical treatment					
9. When illness small as a headache, fever you can maintain themselves	205(51.25)	171(42.75)	24(6.00)	2.45	Extremely true
10.When you were sick you were taken care children and relatives.	298(74.50)	89(22.25)	13(3.25)	2.71	Extremely true
11. When you was sick the first place treatment was the Health center.	326(81.50)	61(15.25)	13(3.25)	2.78	Extremely true
12. You received proper service from officers every time you seek for their healthcare treatment.	338(84.50)	50(12.50)	12(3.00)	2.82	Extremely true

* negative question

4.3 Social environmental factors

4.3.1 Sources of information that respondent received

Analysis of environmental factors, social resources, such as perception, reading newspapers, listening to radio, watch television, from their children in the family, the health volunteers, from the neighboring ,government officer and from other sources or never get to the information.

The social environment factors of the elderly in Chiangkhawn District Roi Et, Province, Thailand, found that the source of perception, most of (88.50%) the elders got information from television followed by the village health volunteer (60.75%) and radio, (59.75%) respectively as table 3.

Table 3: Sources of information that respondents received (can answer more than 1 choice) (n=400)

Sources of information	Number	Percentage (%)
Television	354	88.50
Village health volunteer	243	60.75
Radio	239	59.75
Neighbors	236	59.00
Family members	220	55.00
Government officers	102	25.50
Newspaper	79	19.75
Others (village hall)	11	2.75
Never receive additional information	0	0

4.3.2 Relationship with the community

Analysis of factors relationships between the people in the community in Chiangkhwan District Roi Et, Province, Thailand, as meeting, support, getting help when they need a great friend to each others. including to the people in the village.

The relationship with the community of elders indicate to three in four part according to they have neighbors or people in the village as friendly and they have hospitality toward them (80.00%) have meeting or talking with your people and neighbors in the village (77.75%) they never had conflicted with people in the village (72.75%) asked for assistance from the neighbors whenever they were necessary .(71.75%) and regular provided assistance to people in the same village (67.75%). as table 4.

Table 4: Relationship with the community (n=400)

Relationship with the community	Often N (%)	Sometimes N (%)	Never N (%)	Mean	Meaning
1. You are meeting or talking with your neighbors or people in the village	311(77.75)	81(20.75)	6(1.50)	2.76	Often
2.You regular provide assistance to people in the same village.	271(67.75)	122(30.50)	7(1.75)	2.66	Often
3.You asked for assistance from neighbor whenever necessary.	287(71.75)	103(25.75)	10(2.50)	2.69	Often
4.You have neighbors or people in the village as a friend. They have hospitality toward you.	320(80.00)	69(17.25)	11(2.75)	2.77	Often
5. You have conflicts with people in the village.[*]	291(72.75)	57(14.25)	52(13.00)	2.60	Often

* negative question

4.3.3 Participation with the community

Analysis of the participation of the elderly in the community such as the opportunity to do activities. Important religious days. The end of Buddhist Lent as Lent to attend social events such as marriage, ordination, work up a new home. Participation in activities that they are beneficial to society, such as planting trees or teaching children the opportunity to attend to the funeral. And always visit their relatives.

The participation of the elderly community in Chiangkhwan District Roi Et Province, Thailand showed that the most of older often to participation in event on

religious (65.75%) the opportunity to attend social events as wedding day (62.00%), The elders chance to attending to the funeral (52.75%), always (47.00%), visit their relatives and friends always, participating in activities that are beneficial to society, planting trees and teaching (45.00%) as table 5.

Table 5: Participation with the community (n=400)

Participation with the community	Often N (%)	Sometimes N (%)	Never (%)	Mean	Meaning
1. You have opportunity to participate in the religious activities as Buddhist Lent Day,	263(65.75)	77(19.25)	60(15.00)	2.51	Often
2. You have opportunity to participate in social events such as ordination, wedding, and new house ceremony.	248(62.00)	129(32.25)	23(5.75)	2.56	Often
3. You involve in the charitable activities such as planting trees, teach the children.	135(33.75)	180(45.00)	85(21.25)	2.13	Sometimes
4. You have opportunity to participate in funeral ceremonies.	211(52.75)	116(29.00)	73(18.25)	2.35	Often
5. You visited relatives and friends regularly.	188(47.00)	175(43.75)	37(9.25)	2.38	Often

4.4 Elderly Health Factors

      4.4.1 Elderly illness and medical treatment

            Analysis of health factors such as the elderly within 4 weeks, diseases of the elderly, diseases that occur with aging, as well as the treatment.

            In the last 2 weeks for the elderly health as diseases that occur three in four (74.50%) with the elderly had no medical conditions, and no underlying diseased (66.25%), nearly half of them (42.00%) they received treatment in the health center, continuous treatments from the hospital (24.75%) as table 6.

Table 6: Elderly illness and medical treatment (n=400)

Sources of information	Number	Percentage (%)
Had any illness		
No	298	74.50
Yes	102	25.50
History illness		
No	265	66.25
DM, Hypertension, Kidney disease and		
Arthritis	89	22.25
Others (Headache, back pain)	46	11.50
Treatment (can answer more than 1 choice)		
Receive treatment at health center	168	42.00
No treatment.	109	27.25
Receive continuous treatment from the		
hospital.	99	24.75
Receive treatment from clinic.	39	9.75
Purchase medicine by them.	12	3.00

      4.4.2 Elderly general health

            General health of the elderly, such as the strength of the health The bath, dressing themselves without helping, wearing their own clothes without support, used the toilet, without someone helping traveled by bus, taxi or driving alone, could walking and balance, walk up and downstairs or steep slopes without supporting.

Exercise with used stick daily, wearing false tooth. for chew food. bleary-eyed , Hearing voices clearly, a normal urine, dental problems, and good memory.

For the general health of the elderly in Chiangkhawn District Roi Et, Province, Thailand in the last 2 weeks . Most of them (95.25%) were able to wearing their own clothes without people support. Almost (93.50%) of them bath and dressing by themselves. Used the toilet alone (92.25%). Walking and balancing body normal (88.00%). Walk up downstairs and slope steep alone (79.00%). Urine is normal (75.00%). Can travel by bus, taxi or driving alone (70.75%). they have bowel movement (63.00%), they did not used false tooth for chew food (60.50%).But over half they hearing sound clearly (59.00%), they exercise with stick every day (53.75%).Have a good memory (47.75%), over half of them feel have a good health (50.75%), although they have bleary - eyed (45.25%). but (42.25%) of them have the dental problem. as table 7

Table 7: Elderly general health in the last 2 weeks (n=400)

Elderly general health	Extremely true N (%)	Partly true N (%)	Untrue N (%)	Mean	Meaning
1. You feel that you are physically healthy.	167(41.75)	203(50.75)	30(7.50)	2.34	Extremely true
2. You can take a baht alone.	374(93.50)	21(5.25)	5(1.25)	2.92	Extremely true
3. You can wear clothes alone.	381(95.25)	16(4.00)	3(0.75)	2.95	Extremely true
4. You can use the toilet alone.	369(92.25)	25(6.25)	6(1.50)	2.91	Extremely true
5. You can travel by taking public bus, , or personal vehicle alone.	283(70.75)	69(17.25)	48(12.00)	2.59	Extremely true

Table 7 :(Continued)

Elderly general health	Extremely true N (%)	Partly true N (%)	Untrue N (%)	Mean	Meaning
6. You can walk and balance alone.	352(88.00)	36(9.00)	12(3.00)	2.85	Extremely true
7. You can walk up down stairs or slope alone.	316(79.00)	65(16.25)	19(4.75)	2.74	Extremely true
8. You exercise or using exercise stick daily.	215(53.75)	138(34.50)	47(11.75)	2.42	Extremely true
9. You have normal bowel movement.	252(63.00)	114(28.50)	34(8.50)	2.55	Extremely true
10. You use false tooth for chewing food.*	242(60.50)	73(18.25)	85(21.25)	2.39	Extremely true
11. You have bleary-eyed.	114(28.50)	181(45.25)	105(26.25)	2.02	Partly true
12. You can clearly hear sound.	236(59.00)	146(36.5)	18(4.50)	2.55	Extremely true
13. Your urine is normal..	300(75.00)	79(19.75)	21(5.25)	2.70	Extremely true
14. You have dental problem.*	126(31.50)	169(42.25)	105(26.25)	2.05	Partly true
15. You have good memory.	191(47.75)	177(44.25)	32(8.00)	2.40	Extremely true

4.5 Quality of life

Quality of life of the elderly such as pain on the body. There are enough things to do each day and work or operation. For daily life, feel like a sleep over can

do anything. Need to receive medical treatment. Satisfaction with the ability to working, your life, happiness, peace, hopeful to focus on working different feeling satisfied semblance of self-acceptance. Enjoy your trip where they can go out (of the communication), feeling lonely, anxiety, depression despair or their life were meaningful. To meeting your friends or others are happy in the past. Satisfied with the support when they received from their friends. Satisfied with sex life. Fair pay money as and when necessary. Life security, satisfied with the state residence. Getting for health services. Need to know about news. Have the opportunity and relaxation stress. Healthy and environment, and the level of quality of life.

   Found that Quality of life items. The elderly were satisfied with the state residents ($\overline{x}$ = 4.23, S.D.= 0.89) satisfied with support and getting from their friend ($\overline{x}$ = 4.06, S.D. = 0.82) To feel life were meaningful ($\overline{x}$ = 4.13, S.D.= 0.94),satisfied with their sleep at a high level ($\overline{x}$ = 3.69, S.D.=0.90) satisfied with sexual at low level ($\overline{x}$ = 2.07, S.D. =1.23). as table 8.

Table 8: Quality of life in the last 2 weeks (n=400)

Quality of life	Extreme N (%)	Very much N (%)	Moderate N (%)	A Little N (%)	Not at All N (%)	Mean	SD	Meaning
1.How satisfied are you with your health ?	88 (22.00)	121 (30.25)	164 (41.00)	21 (5.25)	6 (1.50)	3.66	0.93	High
2.How much do you feel pain headache, body ache stomachache, prevents you from doing?	16 (4.00)	51 (12.75)	197 49.25	87 (21.75)	49 (12.25)	2.75	0.97	Moderate

Table 8 : (Continued)

Quality of life	Extreme N (%)	Very much N (%)	Moderate N (%)	A Little N (%)	Not at All N (%)	Mean	SD	Meaning
3. Do you have enough energy for everyday life (work or living)?	43 (10.75)	123 (30.75)	184 (46.00)	43 (10.75)	7 (1.75)	3.38	0.88	Moderate
4. How satisfied are you with your sleep?	82 (20.75)	147 (36.75)	139 34.75	29 (7.25)	3 (0.75)	3.69	0.90	High
5. How satisfied with your ability to perform daily living activities ?	73 (18.25)	133 (33.25)	151 (37.35)	36 (9.00)	7 (1.75)	3.57	0.95	Moderate
6. How much do you needed medical treatment?	21 (5.25)	44 (11.00)	120 (30.00)	136 (34.00)	79 (19.75)	2.48	1.09	Moderate
7. How satisfied with your capacity for work?	63 (15.75)	137 (34.25)	150 (37.50)	43 (10.75)	7 (1.75)	3.52	0.94	Moderate

Table 8 :(Continued)

Quality of life	Extreme N (%)	Very Much N (%)	Moderate N (%)	A Little N %	Not at All N (%)	Mean	SD	Meaning
8. How well are you able to get around?	126 (31.50)	135 (33.75)	101 (25.25)	31 (7.75)	7 (1.75)	3.86	1.01	High
Mental								
9. How much do you enjoyed life (happiness, peace, or hope)?	106 (26.50)	165 (41.25)	112 (28.00)	15 (3.75)	2 (0.50)	3.90	0.86	High
10. How well are you able to concentrate?	87 (21.75)	134 (33.50)	146 (36.50)	27 (6.75)	6 (1.50)	3.67	0.94	Moderate
11. How satisfied are you with yourself ?	128 (32.00)	143 (35.75)	113 (28.25)	12 (3.00)	4 (1.00)	3.95	0.90	High
12. Are you able to accept your bodily appearance?	168 (42.00)	137 (34.25)	80 (20.00)	12 (3.00)	3 (0.75)	4.14	0.89	High

Table 4.8 :(Continued)

Quality of life	Extreme N (%)	Very much N (%)	Moderate N (%)	A Little N (%)	Not at All N (%)	Mean	SD	Meaning
13. How satisfied are you with the communication?	103 (25.25)	128 (32.00)	111 (27.75)	43 (10.75)	15 (3.75)	3.65	1.09	Moderate
14. How often do you have negative feelings, such as mood, despair, anxiety, depression?	97 (24.25)	131 (32.75)	82 (20.50)	44 (11.00)	46 (11.50)	3.47	1.29	Moderate
15. To what extent do you feel life to be meaningful?	169 (42.25)	141 (35.25)	68 (17.00)	16 (4.00)	6 (1.50)	4.13	0.94	High
Social Relationship								
16.How satisfied are you with your personal relationships?	154 (38.50)	177 (44.25)	57 (14.25)	10 (2.50)	2 (0.50)	4.18	0.80	High
17. How satisfied are you with the support you get from your friends?	127 (31.75)	184 (46.00)	77 (19.25)	8 (2.00)	4 (1.00)	4.06	0.82	High

Table 8 : (Continued)

Quality of life	Extreme N (%)	Very much N (%)	Moderate N (%)	A Little N (%)	Not at All N (%)	Mean	SD	Meaning
18. How satisfied are you with your sex life? (means you have a way to deal with your sexual	17 (4.25)	49 (12.25)	69 (17.25)	74 (18.50)	191 (47.75)	2.07	1.23	Poor
Environmental								
19.How safe do you feel in your daily life?	107 (26.75)	187 (46.75)	94 (23.50)	8 (2.00)	4 (1.00)	3.96	0.82	High
20. How satisfied are you with the conditions of your living place?	195 (48.75)	120 (30.00)	71 (17.75)	11 (2.75)	3 (0.75)	4.23	0.89	High
21. To what extent do you have enough money to meet your needs?	36 (9.00)	100 (25.00)	218 (54.50)	39 (9.75)	7 (1.75)	3.30	0.83	Moderate
22. How satisfied are you with your access to health services?	142 (35.50)	162 (40.50)	84 (21.00)	8 (2.00)	4 (1.00)	4.08	0.86	High

Table 8 :(Continued)

Quality of life	Extreme N (%)	Very much N (%)	Moderate N (%)	A Little N %	Not at All N (%)	Mean	SD	Meaning
23. How available to you is the information that you need in your life?	125 (31.25)	161 (40.2)	100 (25.00)	14 (3.50)	- -	3.99	0.84	High
24. Do you have the opportunity for leisure activities?	76 (19.00)	171 (42.75)	138 (34.50)	13 (3.25)	2 (0.50)	3.77	0.81	High
25. How healthy with your physical environment?	113 (28.25)	192 (48.00)	92 (23.00)	2 (0.50)	1 (0.25)	4.04	0.75	High
26. Overall quality of life What do you think of your level of quality of life (standard living)?	134 (33.50)	127 (31.75)	139 (34.75)	- -	- -	3.99	0.83	High

The result of quality of life by each aspects of elders in Chiangkhwan District, Roi Et Province, quality of life by physical (61.50%) and physiological (61.50%) showed that quality of life were moderate level, but social (50.00%) and the environment (54.25 %) quality of life were high level. In addition to Overall quality of life was high level (50.25%) as table 9.

Table 9: Quality of life by each aspect of elders in Chiangkhwan District
Roi Et Province, Thailand.

Quality of life	Number	Percentage	Meaning
Physical			Moderate
Poor	3	0.75	
Moderate	246	61.50	
High	151	37.75	
Mean = 3.62 , S.D.= 0.49)	Min = 2.29	Max = 5.00	
Psychological			Moderate
Poor	10	2.50	
Moderate	245	61.25	
High	145	36.25	
Mean = 3.55 ,S.D. 3.21	Min= 1.67	Max =5.00	
Social Relationship			High
Poor	22	5.50	
Moderate	200	50.00	
High	178	44.50	
Mean = 3.72, S.D.= 0.69	Min =1.67	Max = 5.00	
Environment			High
Poor	2	-	
Moderate	181	49.75	
High	217	50.25	
Mean = 3.75 , S.D. = 0.47	Min = 2.13	Max = 4.69	
Overall Quality of life			High
Poor (26-60 scores)	-	-	
Moderate (61-95 scores)	199	49.75	
High (96-130 scores)	201	50.25	
Mean = 3.67, S.D.= 0.41	Min = 2.38	Max = 4.69	

The result of factor related to independent variables and total quality of life of elders in Chiangkhwan District, Roi Et Province, showed that for personal data including to gender, age, still working and physical work. For human basic needs in clothes and medical treatment aspect, participation with the community and elderly general health had positive association with total quality of life with statistical

significance level of 0.05. Meanwhile, personal data including marital status, average monthly income, and sufficient monthly income. Human basic needs in food and residence aspect. For relationship with the community had not related to total quality of life. This indicated that female between 60-64 years old that still working in the field of professional, current physical work suitable for aged, human basic needs in clothes and medical treatment aspect, participation with the community and elderly general health. The most of total quality of life were high level as table 10.

Table 10: Factors related to independent variable and total quality of life of elders in Chiangkhwan District, Roi Et Province, Thailand

Independent variable	Total Quality of life			χ^2	p-value
	Moderate (%)	High (%)	Total %)		
Gender				3.840	**0.050***
Male	70 (43.75)	90 (56.25)	160 (100)		
Female	129 (53.75)	111 (46.25)	240 (100)		
Age (years)				11.769	**0.019***
60-64	55 (39.01)	86 (60.99)	141 (100)		
65-69	65 (56.03)	51 (43.97)	116 (100)		
70-74	32 (55.17)	26 (44.83)	58 (100)		
75-79	23 (48.94)	24 (51.06)	47 (100)		
Above 80	24 (63.16)	14 (36.84)	38 (100)		
Marital status				2.058	.357
Single	5 (50)	5 (50)	10 (100)		
Married	113 (46.89)	128 53.11)	241 (100)		
Widowed/ Divorce/separation	81 (54.36)	68 (45.64)	149 (100)		
Average monthly income (Bath)				4.903	.086
0-2,000	107 (46.72)	122 (53.28)	229 (100)		
2,001-5,000	64 (50)	64 (50)	128 (100)		
> 50,00	28 (65.12	15 (34.88)	43 (100)		

Table 10 : (Continued)

Independent variable	Total Quality of life		Total(%)	χ^2	p-value
	Moderate (%)	High (%)			
Sufficient monthly income				4.482	.106
Sufficient and have some left for saving	48 (53.93)	41 (46.07)	89 (100)		
Sufficient but not enough for saving	90 (53.57)	78 (46.43)	168 (100)		
Insufficient	61 (42.66)	82 (57.34)	143 (100)		
Still working				9.067	**0.003***
No	102 (58.29)	73 (41.71)	175(100)		
Yes	97 (43.11)	128 (56.89)	225(100)		
Physical work				7.639	**0.022***
Suitable to age	81 (47.09)	91 (52.91)	172 (100)		
Not suitable	33 (40.24)	49 (59.76)	82 (100)		
Does not work	85 (58.22)	61 (41.78)	146 (100)		
Human basic needs				.080	.777
Food					
Partly true	135 (49.27)	139 (50.73)	274 (100)		
Extremely true	64 (50.79)	62 (49.21)	126 (100)		
Residence				.445	.505
Partly true	16 (44.44)	20 (55.56)	36 (100)		
Extremely true	183 (50.27)	181 (49.73)	364 (100)		
Clothes				17.101	**0.001***
Partly true	47 (73.44)	17 (26.56)	64 (100)		
Extremely true	152 (45.24)	184 (54.76)	336 (100)		

Table 10: (Continued)

Independent variable	Total Quality of life		Total(%)	χ^2	*p-value*
	Moderate (%)	High (%)			
Medical treatment				13.627	**0.001***
Partly true	24 (82.76)	5 (17.24)	29 (100)		
Extremely true	175 (47.17)	196 (52.83)	371 (100)		
Relationship with				2.923	.087
the community					
Partly true	16 (66.67)	8 (33.33)	24 (100)		
Extremely true	183 (48.67)	193 (51.33)	376 (100)		
Participation with					
the community				13.907	**0.001***
Never	6 (85.71)	1 (14.29)	7 (100)		
Sometime	73 (61.34)	46 (38.66)	119 (100)		
Often	120 (43.80)	154 (56.20)	274 (100)		
Elderly general					
health				11.335	**0.001***
Partly true	30 (75.00)	10 (25.00)	40 (100)		
Extremely true	169 (46.94)	191 (53.06)	360 (100)		

* Statistical significance level of 0.05

CHAPTER V

CONCLUSION, DISCUSSION AND RECOMMENTATIONS

The research factors influencing quality of life of elders in Chiangkhwan District, Roi Et Province, Thailand Population were older, both male and female age of 60 years to study the general information purposes. Factors as the basics of life environmental and genetic factors. Health status factors. Quality of life and factors affecting the quality of life of elder persons, both male and female aged 60 years and over in the district of Chiangkhawn District, Roi Et Province, Thailand, methods of research by interviewing a total of the 400 samples of elders , interviewed by the validation by 3 experts, and interviews to determine the reliability of statistical analysis were used Cronbach Alpha coefficient data. The researchers analyzed data by the SPSS (statistical software package program).To used as Descriptive statistics comparison between the average percentage, mean, standard deviation, maximum, minimum values and correlate were analyzed by Chi square test.

5.1 Conclusion

The results of the factors influencing quality of life of elders in Chiangkhwan district, Roi Et province, Thailand

Section 1: General information such as gender, age, marital status ,household income, adequacy of income, occupation, position in the community. As the results, the most (60.00%) of the elderly were female, only one third (35.25%) aged 60-64 years. The minimum aged 60 years and maximum age 91 years the average age were 68.74 years, married (60.25%) average monthly income 3221.75 Baht, but (42.00%) did not enough for saving, over half (56.25%), of the elders were still working (56.25%), the mostly were agriculturist. Working (43.00%) to aged-appropriate labor and more than the three fourth (74.50%) of the elders they had not the social position in the community.

Section 2: The fundamentals of life such as food, clothing residence and medical treatment. The results fundamental aspects of life, over half (56.00%) of the elders food is still eating half-raw minced beef, such as fermented fish. The residence nearly almost (93.00%) of the housing durability than 5 years ,the facilities

are usually television (92.50%), and more than the three fourth (75.75%) did not lived in the narrow crowded, the most (64.00%) of them had adequate clothing in the season (64.00%).The medical treatment of elderly, nearly of the most (84.50%) of the elderly illness, had better services from the staff to receive treatment and choose service to (81.50%) the health centers for the first time. .

Section 3: Environmental factors such as social perception, relationship with the community, participation in the community, meeting and talking to the neighbors, charitable to getting help from neighbors when necessary, the friendliness and fellowship in the community association. Participation in the community activities such as participation in religious activities. Co-ordination, social work marriage. Congratulate to a new house for a funeral and participate in activities that benefit society as well as to visit relatives and friends. Found that the sources of perception, nearly almost (88.50%), will recognize from the television News, followed by village health volunteer (60.75%) and the radio (59.75%). Meeting ,support, getting for help when they need a great friend to each others including of the people in the village. Found that the relationship with the community's elderly. Mostly according to you have neighbors or people in the village as friend and have hospitality toward them. (80.00%) , Regularly meet or talk with your neighbors or people in the village (77.75%) only three four (71.75%), they can seek for assistance from the neighbors whenever necessary. You regularly provide assistances to people in the same village. (67.75%), did not (72.75%) have conflicts with people in the village respectively. Participation of the elderly community, found that the elders over half (65.75%), had participation on religious, followed by the opportunity to attend social events (62.00%) to a funeral (52.75%) to visit relatives and friends always (47.00%) and older. Some participate in activities that are beneficial to society, such as planting trees or only teaching the children (45.00%).

Section 4: Factors health of the elderly. Diseases that occur with aging. History of underlying illness, general health treatment. The physical health , the elders ability to perform daily activities such as wearing their own clothes. To dress themselves and use their own toilets. Digestive system, to travel, walking and body balance., go up and down stairs. Exercise, dental health ,vision, hearing,

memory of the elderly. Found that in the last 2 weeks, Most of the elders did not have symptoms (74.50%) and there was no (66.25%) underlying disease respectively the elders. (42.00%) received treatment at the health center. Only (24.75%) received continuous treatments from a hospital. For general health, almost (95.25%) of the elders could wearing their own clothes without for helping ,took a bath, dress up of its own (93.50%) want to the toilet without someone to help support (92.25%), could walk and body balance (88.00%).And walking up and down the stairs or slope without someone help. While (79.00%) of the elders urine is normal. They (75.00%) could travel lonely by bus, taxi or driving (70.75%), they could move normal bowel movement (63.00%). The elder did not have false tooth for chewing food (60.50%), while over half (59.00%) of them heard clearly sound, and exercise with the stick regularly every day (53.75%). they feeling physical healthy (50.75%), and have a good memory for (47.75%). for the vision they have blare-eyes (45.25%), and they have dental health for loosing teeth (42.25%).

Section 5 : Quality of life item of elderly participants found that the elderly were satisfied with the state house residents ($\overline{x}$ = 4.23, S.D.= 0.89), satisfied with support and get from their friend ($\overline{x}$ = 4.06, S.D. = 0.82), To feel that the life to be meaningful ($\overline{x}$ = 4.13, S.D.= 0.94), satisfied with their sleep at a high level ($\overline{x}$ = 3.69, S.D.=0.90) .But they satisfied with sexual at low level ($\overline{x}$ = 2.07, S.D. =1.23)

Quality of life of the elderly 4 domains as below:

- Physical was moderate level ($\overline{x}$ = 3.62, S.D = 0.49)
- Psychological was moderate level ($\overline{x}$ = 3.55, S.D = 0.53)
- Social relation was high level ($\overline{x}$ = 3.72, S.D = 0.69)
- Environment was high level ($\overline{x}$ = 3.75, S.D = 0.47)

Overall Quality of life of the elderly was moderate level.

The relationship between the factors that influence quality of life of older persons.in Chiangkhwan District, Roi Et Province, Thailand, 400 samples, both males and females found that factors associated with quality of life, significantly correlated at level 0.05 as bellows:

1). Factors of personal status information such as gender, age, occupation and age-appropriate work.

2). Factors of human basic needs such as clothing and medical treatment.

3). Factors of social relationships.

4). Factors of environmental.

5). Factors, general health of the elderly.

5.2 Discussion.

1. For personal status information. Found that gender, age, occupation and age-appropriate work were positively correlated with the quality of life follows:

Gender: For the result of the study, gender is the positive correlation with quality of life of the elderly. Significantly correlated at 0.05 level. Described that gender determine the quality of life and the difference of the elderly in society. Both role and personality of the person. Who differed gender would have a different sense. Gender has influence on quality of life in accordance with the nourishment ,the study of (Pliangbumrung,1997),on "Self-care behaviors and quality of life of the elderly in the southern provinces of Thailand Year 1997", study described to that gender differences would have a different sense , specially in Thailand.

In rural society determined that males having role in family for the leader. Career decision-making authority. To be accepted and respected by society Male have more admirable than females. The women got to helping more than male When concerned with a problem, Females are more concerned than male. Although in the same age the elders with different gender self-care is a difference. For the result of quality of life, female has a lower quality of life than male. Consistent with the results of research (Ubonwan,1997) on "Self-care behaviors and quality of life of elderly people in the central region of Thailand", found that male with the quality of life was better than female. The study conflicted with the blessings the "Quality of life and factors related to quality of life in semi-urban semi-rural community in Nongbua sub-district, Muang district, Udon Thani Province. A Case Study by (Panchapong, Boonsanpean and Burakum, 2004) showed that gender was negatively correlated with

quality of life. In the role of community, male was accepted but the female was served as the follower. Male lift into the front to be able to solved the problem or leadership more than females. So the female has a lower quality of life than male.

Age: Studies have showed that age is positively correlated with quality of life of elderly statistically significant at the 0.05 level. Age is a determining influence on the quality of life of older persons from the study of (Siripanich, 1997) has divided health status of the elderly in 3 groups of elderly aged 60-70 years are beginning the group had the ability to helping themselves is largely due to physiological changes in the body also changes. Few Elderly middle age group 71-80 years that has changed more than and start with impairments in their physical care of the body. They want the others who take care of the visually impaired. Old age group at the end of 80 years or over body physical change significantly. They need to have someone to look after them. The study of (Kumarnjun, 2000) for "Quality of life of elderly people in the upper southern part in Thailand", found that the quality of life of elders are lower than younger age, consistent with the findings of the creature (Kanchanaworawong, 1997) study of the "Quality of life of the elderly with ostoarthritis of the knee", found that age is negatively correlated with quality of life. Show that elder age in early period the quality of life was high level, but the elders in the late period or over ages quality of life was low level

Occupation and age-appropriate work: The occupational and work appropriate to their ages is positively correlated with quality of life. Most of the elderly continued to be the main occupation of agriculture. And a career that suitable for the elderly age group, which is the most junior workers were not too hard from the condition of the body. Considering the average income in 3221.75 baht, household income showed that adequate but did not discount for saving. The sample size in this study are mostly in the early period group (Siripanich, 1997) In the study, Physiological was a little change to the body, could help themselves, so the quality of life were to be satisfactory level. They could work as they wanted and appropriate to their age. (Boonsanpan and Burakum, 2004) study of the "Quality of life and factors related to quality of life in semi-urban semi-rural community, a case study of Nong Bua sub-district Muang district Udorn Thanee Province". Showed that occupational causes as the director of the economic security for themselves and their families. If

the elder of the occupation would cause economic security, the quality of life was high level. Of unemployed workers lost roles. Career to helping the elderly remained professional and they were high or good quality of life.

2. For human basic need: showed that the clothes and medical treatment are positively correlated with quality of life of the elderly was significantly correlated at 0.05 level.

Cloth: The result revealed that if the elderly using appropriate cloth for seasonal the elderly opportunity to have a good character. Ensure their happiness in the comfortable, almost in line with the study of "Quality of life and factors related to quality of life in semi-urban semi-rural community case study of Nong Bua Udon Thani Province Thailand" (Boonsanpan and Burakum, 2004).

Medical treatment: In healthcare from this study, describe that when the aging body in degenerative changes in the human body, which was the first phase of growth. Body is accelerating work on the date and time, but people born at the age of the elderly more likely to suffer health problems because the function of organs will be reduced to the elderly over 60 years would have Impairment of the state and the inactive state recession achieved (Siripanich,1999) the elderly in Chiangkhwan District does not get the treatment from the hospital when they were sick, but they could get to the service at the local health centers. The health center was the first places where the elderly choose to received treatment consistent with (Bunta, 2002) study on "Quality of life of elders in Chiang Mai Province Thailand". The result of the source of health services the most common "Nearest health center and nearest their heart," and refer to the hospitals in Roi Et Province. Elderly received proper care is beneficial to health, illness and were taken care by their children. Care assistance in traveling to receive treatment shows that it is being treated as a factor influencing the quality of life of elders significantly.

3. For social and environment relationships: In this study found that the relationship with the community of the elderly had the positive correlation with the image quality of life of the elderly was significantly correlated at 0.05 level to meeting neighbors and talking with them, of the opportunity to visit relatives and do activities that were beneficial to the society together, social leadership, and generous assistance to people in the community. "The villages received assistance, will enable

the elderly to lived together in society were happy neighbors not consistent with the theory of (Dobrof ,1992) the corrective actions that friends and neighbors who are elderly social role". In (Innog,1997) education on "Quality of life in the central part Thailand," found that most of the elderly, social interaction with others in society, in addition to talking with friends at the same age tended to the elderly and co-edited, mostly elderly, will be honored by members of the community to respected and believed in the wisdom that was acceptable to religious leaders in various ceremonies. Consistent with the study of (Ubonwan,1997), on "Self-care and quality of life in the central part of Thailand" found that the elderly who often joint and activity, often make feeling, so that the elderly were valuable and useful to society. Elderly who lived in communities that had a good relationship to each others, showed that the elderly had a good quality of life .

4. For General health: The general health of the elderly was positively related to quality of life of the elderly. The significant correlated at 0.05 level of physical health, the most of the strength to perform daily activities. And self-help (of clothes, bathing and dressing room closet) and able to transport alone. Better balanced in stairs, steep or slopes. Transportation or travel alone can not help someone, digestive system, hearing , good memory and could exercise on a regular basis. From the study (Caffrey,1990) on "The survey on daily activities of elderly people in the Northeastern of Thailand" was the moving activities such as walking to the temple, walking up the stairs, to the toilet, bathing and dressing. Affect the health of the elderly would have a better quality of life, consistent with Theory (Bulter,1987) discusses concepts of physical activity daily (Activity of Daily Living) that if the elderly could perform daily activities by themselves, they felt that a good health. And basic indicators of health status and well-being of the elderly is the ability to perform daily activities. To promoting a good quality of life, had developed The measurement of quality of life for the elderly in rural areas. The study on "Quality of life of the elderly Northeastern in Thailand". (Panichcheewakul,1994). In the first focus group discussion, to understanding the meaning and components of quality of life. The well-being of the elderly in rural areas were based on physical ability and behavior such as shower, dressing, excretion, get out of bed, eating and go up and down the stairs. For

the ability to lived by behavior, walk to shopping at the store, cooking, and cleaning house. Management on vegetable gardening, and walking to the temple.

The guiding principles of educational information about the health of the elderly can be concluded that the elderly is essential to have a physical activity action to affect mental development in particular. Activities associated with body movements that are related to methods and ways of life of the elderly will result in the health status of the elderly. Physical, mental, social and spiritual health is completed.

5.3 Recommendations

The result of this study, the most of the sample aged 60-64 years in the early period of elder they have a good health for 74.50%. By daily life they were physical work and still working for agriculture, lived in the security residence in the community they had a good relationships. Although with the food and the hospital were not there. In my opinion for general health of chronic disease as Diabetes Mellitus, hypertension and chronic renal failure was found in this study. For the point of view, Diabetes Mellitus was the first diseases in Chiangkhwan District. While In Roi Et Province, Diabetes Mellitus was the second provinces respective from 77 provinces in Thailand. Of the reason that will be effected to cost benefit and dependence. In the further, cause of the elders increased in "Aging society."

Suggestions for the application of this research:

- The Data based plan to planning healthcare in accordance with the day life of the elderly.
- There should be a comparative study between the slum, Urban community area in Roi Et Province and bringing to education with the elderly in any groups.
- To study the ways of life that problems and solutions of the elderly.
- Comparative studies of the elderly, health status, body and spirit.
- Promote physical activity to affect mental development especially related to activities with body movements that associated with the methods and the ways of life of the elderly will be result in general health of the elderly, covered to physical, mental, social and spiritual health.

REFERENCES

Boonsanpaen, R and Burakum, N. (1997). Quality of life and factors related to quality
    of life in semi-urban semi-rural community. A Case Study of Nong Bua, Muang
    District, Udon Thani Province. Master's Thesis, Department of Education and
    health promotion Faculty of Public Health Khon Khaen University.

Boonsanpaen, R. and Burakam, N. (2005). Report on study of level and factors that
    related to quality of life of elders in Tambol Nongbuo, Muang district, Udon
    Thani province. Udon Thani . Master's Thesis Department of Faculty of Public
    Health Khon Khaen University.

Boonta, J. (2002). Quality of life of elderly in MaeHorphra Sub District Maetaeng
    District Chiang Mai Province . Master's thesis, Department of Nursing Faculty
    of Public Health Chiang Mai University.

Caffrey, A.R. (1990). Family care giving to the elderly in Northeast Thailand
    Changing patterns. Doctoral dissertation, Department of Philosophy Faculty
    Anthropology Chiang Mai University.

Chootho, N. (1982). Research Reports. In Thai elderly? Institute of Thai society.
    .Bangkok.1995. pp. 76-89 : Chulualongkorn University 2002.

Chulalongkorn University, (2005). College of Population Studies. Bangkok:
    Chulalongkorn University.

Hamsupothi, S. (2000). Population and development of standard of living. Bangkok:
    Odian Store Publishing House.

Innok, C. (1997). Self-care behaviors and quality of life in the Northeastern of
    Thailand. Master's thesis, Department of Community health nursing Faculty of
    Nursing Mahidol University.

Intharasuksri, S. (1983). When you are the elderly. In the seminar on the elderly and health promotion Bangkok: Ministry of Public Health.

Janeobrom, S. (1998). Science elderly. Bangkok. Department of Non-Formal Education. Faculty of Education Chulalongkorn University.

Kanchanaworawong, P. (1997). Quality of life in the elderly with osteoarthritis of the knee. Master's thesis, Department of Adult Nursing Faculty of Nursing Mahidol University.

Kanthasewee, N. (1983). " Quality of Life" assembly of academics journals: Education and culture. Bangkok: Public Organizatio.

Kanthasewee, N. (1983). "Quality of Life" assembly of academics journals: Siri Hamsupothi. 2000. Population and development of standard of living, Odian Store Publishing House Bangkok: 3.

Kenda, C. (2009). Kenda cheery, About.com Guide by Kenda cheery An overview of Maslow 's Hierachy of need (4 February 2009): 8.

Kinkinsan, P. and Thomas, S. (1991). Development of Education on the Elderly in Thailand. Thailand case study institutions.Bangkok.: Thommasat University.

Kumarnjun, W. (2000). Quality of life of elderly people in the Upper Southearn region of Thailand . Master's thesis, Department of Adult Nursing. Faculty of Nursing Chiang Mai University.

Mahathanirankul, S.,et,.al. (1997) WHOQOL-BREF-THAI Comparison of World Health Organization's test for quality of life of 100 index and 26 index, Suanprung Hospital, Chiangmai Province.

Ministry of Public Health. Department of Health, Roi Et Provincial Public Health, In Public Health Strategy Development Report group Roi Et,(2009) .pp 40-50

National Economic and Social Development Board office, Human Resources Planning Division, (2005). The Projection of Thai Population 1990-2020. Bangkok: National Economic and Social Development Board office.

National Statistical Office of Thailand, Statistical Data Bank and Information Dissemination Division, (1998). Statistics of elderly in Thailand. Bangkok: P.A. Living Co., Ltd.

Nawachinda, A. (1991). Satisfaction variables central to improving the quality of life of elderly. In National Population Conference. Royal River Hotel Bangkok. Bangkok: 427.

Palangrith, S. (2004). Development of living standard of elders by individual, family and community in Phra Nakhon Sri Ayutthaya province. Doctoral dissertation, College of Population Faculty of Arts Chulalongkorn University.

Panchapong, C., Boonsanpean, R. and BooraKum, N. (2004). Report on study of level and factors that related to quality of life of elders in Tambol Nongbuo, Muang district, Udon Thani Province. Master's Thesis, Department of Public Health Faculty of Public Health Khon Khan University.

Pliangbumrung, D. (1997). Self-care behaviors and quality of life of the elderly In the southern provinces of Thailand. Master's thesis, Department of Adult Nursing. Faculty of Nursing Mahidol University.

Porapakkarm,Y. and Adipothi, S.(2000). Report on the study of health condition and trend of elderly population. Part of the study and health research plan ASEAN Institute for Health Development. Mahidol University.Bangkok: Health Systems Research Institute.

Public Health Strategy Development Group, Roi Et Provincial Public Health Provincial Office, (2009). General information of Roi Et Province. Roi Et : Roi Et Provincial Health Office . Roi Et: 45-50.
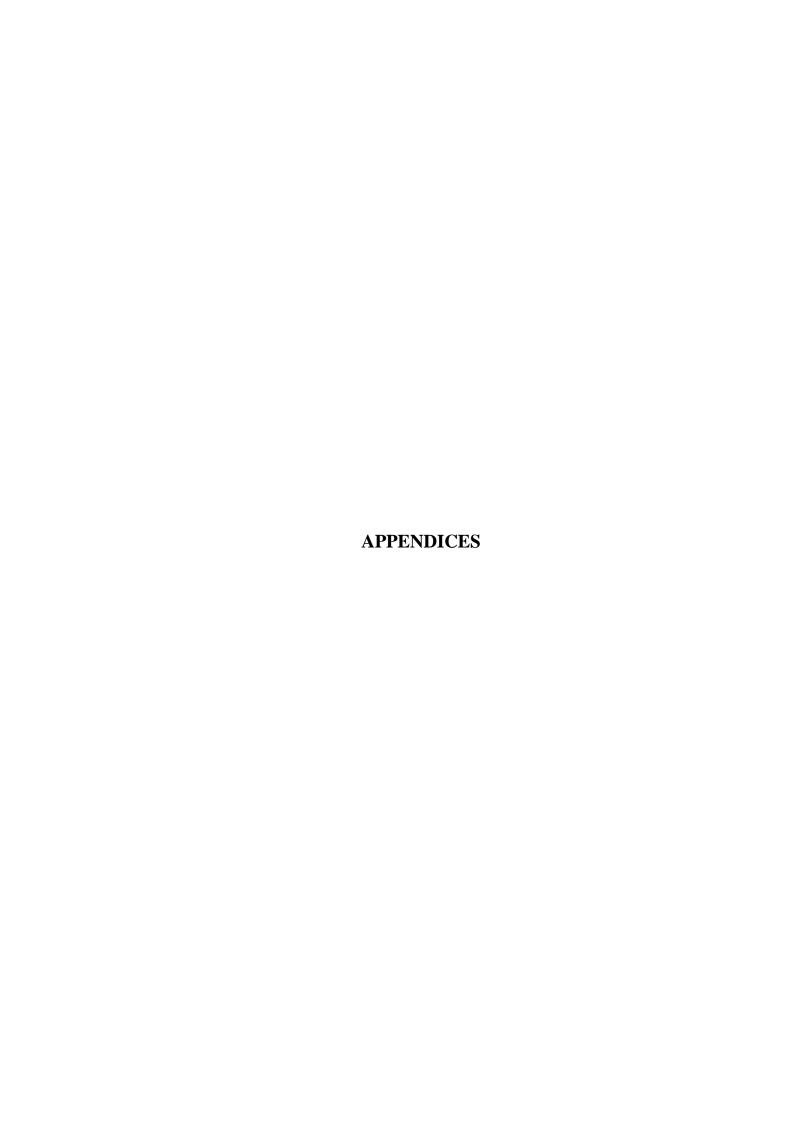
Royal Institute, (1999). <u>Royal Institute Dictionary</u>. print No.1. New York: Behalf of
the Books Publication Visions, 2003.

Rinthara, J. (2007). Thories on Aging. <u>Board Examination and fellowship</u>
<u>Review and Study pass by Dr. Ronald Klatz and Dr.Robert Golden, 2007-2008</u>
Edition post 2010-8-11 by <u>Old post promoter</u>: 112-115.

Sharma, R.C. (1988). <u>The Meaning of Quality of life in Sharma Population Resource</u>
<u>Environment and Quality of life. Dhapat Rai & Son.</u> New Delhi: 4.

Siljaru, T. (2008). <u>Data Processing and Analysis Using SPSS 9th</u> Edition. Bangkok:
Business R&D: 58-59.

Somrongthong R, (2004). <u>Adolescent Health Needs, Accessibility of Services,</u>
<u>Depression and Quality of life by assisting in the development of community</u>
partnerships, Doctoral dissertation Philosophy in public health college of public
health, Chulalongkorn University.

Yamane, T. and Siljaru T. (2008). <u>Data Processing and Analysis Using SPSS</u> 9th
Edition. Bangkok. Business R&D: 45.

Ubonwan, K. (1997). <u>Self-care behaviors and quality of life of the elderly in the</u>
<u>central region of Thailand.</u> Master's thesis, Department of Adult Nursing Faculty
of Nursing Mahidol University.

Udomsak, Y. (1973). The methods of population education, concepts and principles
In <u>the Project of Population Education conference for solving Public Health</u>
<u>problem</u>. Mahidol University.

UNESCO, (1974). Population education in Asia in <u>Population quality of life themes</u>
<u>Bangkok</u> .UNESCO Regional Office Education in Asia.

APPENDICES

APPENDIX A

Questionnaire

A research on "Factors influencing quality of life of elders in Chiangkhwan District, Roi Et Province, Thailand"

…..……………………………………………………………………………………

Instruction: Please make a sign in **( )** or fill in the blank according to your real experience.

Part 1 General Data

1. Gender   ( ) 1.Male   ( ) 2. Female   [ ] T1

2. Current age ……………years old   [ ] T2

3. Marital status   ( ) 1.Single   ( ) 2. Married   ( ) 3. Widowed/

     Divorce/separation   [ ] T3

4. Average monthly income ……………………… Baht   [ ] T4

5. Do you have sufficient monthly income to your expense?   [ ] T5

     ( ) 1. Sufficient and have some left for saving

     ( ) 2. Sufficient but not enough for saving

     ( ) 3. Insufficient

6. Are you still working in your field of professional   [ ] T6

     ( ) 1. No

     ( ) 2. Yes   my current professional is ……………………………………….

7. How hard is your current physical work   [ ] T7

     ( ) 1. Suitable to your age

     ( ) 2. Not suitable to your age

     ( ) 3. No working

8. What is your current status in the community **(can answer more than 1 choice)**

                                              [ ] T8

     ( ) 1. is a member of the village committee

     ( ) 2. is a village health volunteer

     ( ) 3. is a group or club leader (please specify) …………………………

     ( ) 4. others such as   ……………………………………………………….

     ( ) 5. does not have any status in the community

Part 2 Information related to human basic needs total 12 questions

Answering Criteria

Extremely true refers to an option that you often experience

Partly true refers to an option that you sometimes experience

Untrue refers to an option that you never experience

No.	Option	Extremely true	Partly true	Untrue	Code
1	**Food** You have food half-ripened such as fish or meat				P1
2	You consume hygienic and nutritious food				P2
3	You have sufficient clean water for consumption throughout the year				
4	**Residence** Your dwelling used endurable materials more than five years				P4
5	Your dwelling is equipped with sufficient facilities as TV.				P5
6	Your surrounding is always full of malodor, or filled with smoke or dust.				P6
7	You live in limitation dwelling.				P7
8	**Clothes** You have sufficient clothes according to your needs.				P8

No.	Option	Extremely true	Partly true	Untrue	Code
9	**Medical treatment** You can treat yourself when engage in small injury such as have headache or have a fever				P9
10	When you have illness, your cousins will taking care for your illness				P10
11	When you have illness, healthcare units is the first place to request for your treatment				P11
12	You have proper service from healthcare treatment every time				P12

Part 3 Social environmental factors

3.1 Within the last 2 weeks what is the sources of information that you receive

additional knowledge and news   [   ]

( ) 1. Newspaper   ( ) 2. Radio

( ) 3. Television   ( ) 4. Family members

( ) 5. Public health volunteer   ( ) 6. Neighbors

( ) 7. Government officers (please specify)…………

( ) 8. Others (please specify) ……………

( ) 9. Never receive additional information

3.2 Relationship with the community   total 5 items

Answering criteria are

Often   refers to an option that you practice in 4 - 6 times per a week

Sometimes   refers to an option that you practice in 1 - 3 times per a week

Never   refers to an option that you did not practice

No.	Option	Often	Sometimes	Never	Code
1	Regularly meet or talk with your neighbors or people in the village.				S1
2	You regularly provide assistances to people in the same village.				S2
3	You can seek for assistance from neighbor whenever necessary.				S3
4	You have Neighbors or people in the village as friend. They have hospitality toward you.				S4
5	You have conflicts with people in the village.				S5

3.3 Participation with the community   total 5 items Answering criteria are

    Often   refers to an option that you practice in 4 -6 times per a week

    Sometimes   refers to an option that you practice in 1-3 times per a week

    Never   refers to an option that you did not practice

No.	Option	Often	Sometimes	Never	Code
	You have opportunity to participate in the religious activities as Buddhist Lent Day, end of Buddhist Lent Day.				K1
2	You have opportunity to participate in social events ,ordination, wedding, and new house ceremony.				K2
3	You involve in the charitable activities such as planting trees, teaching				K3
4	You have opportunity to participate in funeral ceremonies.				K4
5	You visit relatives and friends regularly.				K5

Part 4 Elderly Health Factors

4.1 Elderly illness and medical treatment

4.1.1 Within the last 4 weeks, have you had any illness?　　　[　]

　　1. (　　) No

　　2. (　　) Yes　Symptoms (please specify)………………………

4.1.2 Do you have history illness?　　　　　　　　　　　[　]

　　1 (　　) No

　　2 (　　) Yes. Diabetes, Hypertension, Kidney disease, Arthritis

　　3 (　　) Others (please specify) ……………………………..

4.1.3 What is your treatment?　　　　　　　　　　　　[　]

　　1. (　　) No treatment

　　2. (　　) Receive treatment at health center

　　3. (　　) Receive continuous treatment from a hospital

　　4. (　　) Purchase medicine by oneself

　　5. (　　) Receive treatment from clinic

4.2 Elderly general health   total 15 questions

Answering criteria

Extremely true   refers to an option that you often experience

Partly true   refers to an option that you sometimes experience

Untrue   refers to an option that you never experience

No.	Option	Extremely true	Partly True	Untrue	Code
1	You feel that you are physically healthy.				H1
2	You can take a baht by yourself.				H2
3	You can wear clothes by yourself.				H3
4	You can use toilet by yourself.				H4
5	You can travel by taking public bus, hired vehicle, or personal vehicle by yourself.				H5
6	You can walk and balance by yourself.				H6
7	You can walk up and down stairs or steep slope by yourself.				H7
8	You exercise or using exercise stick daily.				H8
9	You have dental problems regularly.				H9
10	You use false teeth to help when chewing food				H10
11	You experience blear-eyed ness or blur vision				H11
12	You can clearly hear sound.				H12
13	You experience urination problems				H13
14	You have normal bowel movements				H14
15	You have good memory.				H15

Part 5 Questionnaire on quality of life WHOQOL-BREF

No.	In the last 2 weeks	Extreme	Very much	Moderate	A Little	Not at all	Code
1	How satisfied are you with you health?						Q1
2	**Physical** How much do you feel that pain (headache, stomachache, body ache) prevents you from doing what you need to do?						Q2
3	Do you have enough energy for everyday life (work or living)?						Q3
4	How satisfied are you with your sleep?						Q4
5	How satisfied are you ability to perform daily living activities?						Q5

No	In the last 2 weeks	Extreme	Very much	Moderate	A Little	Not at all	Code
6	How much do you need medical treatment to function in your daily life?						Q6
7	How satisfied are you with your capacity for work?						Q7
8	How well are you able to get around?						Q8
9	**Mental** How much do you enjoy life (you have happiness, peacefulness, or hope)?						Q9
10	How well are you able to concentrate?						Q10
11	How satisfied are you with yourself?						Q11
12	Are you accept your bodily appearance?						Q12

No.	In the last 2 weeks	Extreme	Very much	Moderate	A Little	Not at all	Code
13	How satisfied are you with your communication ?						Q13
14	How often do you have negative feelings, such as blue mood, despair, anxiety, depression?						Q14
15	To what extent do you feel life to be meaningful?						Q15
16	**Social Relationship** How satisfied are you with your personal relationships?						Q16
17	How satisfied are you with the support you get from your friends?						Q17
18	How satisfied are you with your sex life?						Q18

No.	In the last 2 weeks	Extreme	Very much	Moderate	A Little	Not at all	Code
	your sexual desire such as masturbation or sexual intercourse)						
19	**Environmental** How safe do you feel in your daily life?						Q19
20	How satisfied are you with the conditions of your living place?						Q20
21	To what extent do you have enough money to meet your needs?						Q21
22	How satisfied are you with your access to health services?						Q22
23	How available to you is the information that you need in your life?						Q23

No.	In the last 2 weeks	Extreme	Very much	Moderate	A Little	Not at all	Code
24	To what extent do you have the opportunity for leisure activities?						Q24
25	How healthy is your physical environment?						Q25
26	Overall quality of life What do you think of your level of quality of life (standard living)?						Q26

APPENDIX B

BUDGET

1) Raw materials

- Printing paper for questionnaire and report   4,000 Baht
- Fuel cost   7,000 Baht
- Photocopy and report making   3,000 Baht

2) Miscellaneous cost   2,000 Baht

Total 16,000 Baht

APPENDIX C

TIME SCHEDULE

Project procedure	Time Frame (months)								
	Sep 10	Oct 10	Nov 10	Dec 10	Jan 11	Feb 11	Mar 11	Apr 11	May 11
Preparatory phase									
1. Literature review	——								
2. Proposal exam			————						
3. Ethic consideration						——			
4. Research tool (set up) and pretest							——		
5. Approval for data collection						——			
Implementation phase									
6. Data collection							——		
7. Data check							——		
8. Data analysis								——	
9. Discussion report and writing								——	
10. Thesis defense									——

VITAE

Name : Suchitra Panyadilok

Address : 34 Rob Muang Road Muang Roi Et District, Roi Et

Province,Thailand. Tel: 043-522134 Mobile: 089-862-1767

E-mail: Catty_panyadilok@hotmail.com

Date of Birth : October 15, 1960

Place of Birth : Bangkok

Education : 1986 Equivalent to Bachelor Science and Health

Burerum Teacher College

Work Experience

1981-2003 : Dental nurse in Selaphom Hospital Roi Et Province

2003-2004 : Dental nurse in Roi Et Province Public Health Office

2005-2006 : Public Health Technical Officer in Chaingkhawn Technical

Office Roi Et Province

Since 2007 : Public Health Technical Officer in Public Health Technical

Office in Roi Et Province

Current Position : Public Health Technical Officer

Office : Roi Et Province Public Health Office Tel: 043-511233