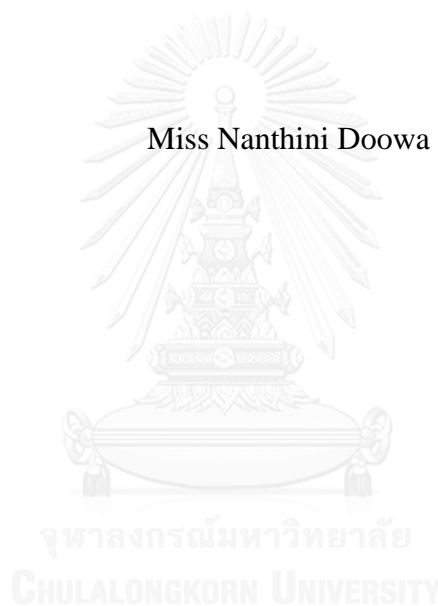


Assessing the Quality of Life of Persons with Physical Disabilities
in Residential Institutionalized Centers, Thailand

Miss Nanthini Doowa



บทคัดย่อและแฟ้มข้อมูลฉบับเต็มของวิทยานิพนธ์ตั้งแต่ปีการศึกษา 2554 ที่ให้บริการในคลังปัญญาจุฬาฯ (CUIR)
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ประเมินคุณภาพชีวิตของผู้พิการทางร่างกายในศูนย์สถาบันที่อยู่อาศัยในประเทศไทย



วิทยานิพนธ์นี้เป็นส่วนหนึ่งของการศึกษาตามหลักสูตรปริญญาสาธาณสุขศาสตรมหาบัณฑิต

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นันทินีย์ คูวา : ประเมินคุณภาพชีวิตของผู้พิการทางร่างกายในศูนย์สถาบันที่อยู่อาศัยในประเทศไทย (Assessing the Quality of Life of Persons with Physical Disabilities in Residential Institutionalized Centers, Thailand) อ.ที่ปรึกษาวิทยานิพนธ์หลัก: อเลซซีโอ พันซ่า, 74 หน้า.

การศึกษากาตคตขวางครั้งนี้วัตถุประสงค์เพื่อประเมินคุณภาพชีวิตที่เกี่ยวข้องกับสุขภาพในกลุ่มผู้พิการ เก็บข้อมูลเชิงปริมาณในกลุ่มผู้พิการ 200 คน ในระหว่างเดือนกันยายน ถึงตุลาคม 2559 ด้วยการสัมภาษณ์โดยใช้แบบสอบถามแบบการวัดคุณภาพชีวิตตงการอนามัยโลก แบบสั้น WHOQOL-BREF การวิเคราะห์ข้อมูลโดยใช้สถิติพรรณนา (ความถี่ ร้อยละ ค่าเฉลี่ย ค่ามัธยฐาน) และสถิติขั้นสูง (ค่าสหสัมพันธ์ ใช้ทดสอบความแตกต่างค่าเฉลี่ยของกลุ่มตัวอย่าง 2 กลุ่ม การวิเคราะห์ความแปรปรวนทางเดียว เพื่อหาความสัมพันธ์ระหว่างปัจจัยทางสังคม ประชากร ระดับความพิการ การเข้าถึงบริการ และคุณภาพชีวิตที่นัยสำคัญทางสถิติ $p \text{ value} < 0.05$

ผลการศึกษาสรุปได้ว่า กลุ่มตัวอย่างคุณภาพชีวิตในระดับกลาง เพศหญิงมีคุณภาพชีวิตไม่ต่างจากเพศชาย เมื่อวิเคราะห์ความแปรปรวนทางเดียว พบว่าการศึกษา และการเข้าถึงด้านการเงิน มีความสัมพันธ์ต่อคุณภาพชีวิต และพบว่าเพศ อายุ การมีงานทำ ศาสนา ระดับความพิการ ไม่มีความสัมพันธ์ต่อคุณภาพชีวิต

คำสำคัญ : residential institutionalized centers, physical disability, religion , accessibility to health care services, health-related quality of life, independent living, Thailand

จุฬาลงกรณ์มหาวิทยาลัย
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The objective of this cross-sectional study was to assess the health-related quality of life among persons with physical disability. The quantitative study was conducted with 200 physically disabled respondents. Data were collected during the period from September to October 2015. Data were collected by face-to-face interviews using a constructed pre-tested questionnaire and one part adapted from WHOQOL-BREF. Data were analyzed by applying descriptive statistics (frequency, percentage, mean, standard deviation, range and median) and inferential statistics (Pearson correlation, Independent t-test and one-way ANOVA) to examine the relationship between health-related quality of life and socio-demographic characteristics, degree of physical disability, and accessibility to health care services. Statistical significance was set as $p < 0.05$.

In conclusion, a moderate level of health related quality of life was shown among respondents. The result showed that females living with physical disability had similar quality of life than males. When analyzed by one-way ANOVA, with statistical significance at the level of $p > 0.05$, gender, age, employment, religion, degree of physical disability are factors that did not show significant association with QoL of the study population. Education and financial accessibility showed an association between health related quality of life. After the analysis the following conclusions could be made: the QoL of people with physical disabilities is associated mostly with education and financial accessibility.

Keywords: residential institutionalized centers, physical disability, religion , accessibility to health care services, health-related quality of life, independent living, Thailand

Field of Study: Public Health

Student's Signature

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CHAPTER I

INTRODUCTION

1.1 Background and Rationale

According to World Health Organization “Disabilities is an umbrella term, covering impairments, activity limitations, and participation restrictions”. Impairment is a problem in body function or structure; an activity limitation is a difficulty encountered by an individual in executing a task or action; while a participation restriction is a problem experienced by an individual in involvement in life situations”. Access to health services is a key issue for WHO, "The goal of universal health coverage is achieved only through measures that address the barriers that people with disabilities experience” (WHO 2014)

Many studies show that the problem with disability is that people with disabilities seek more health care than people without disabilities and have greater unmet needs. They also show that health promotion activities seldom target people with disabilities. For example, women with disabilities receive less screening for breast and cervical cancer than women without disabilities. WHO defines "Quality of Life as individual’s perception of their position in life in the context of the culture and value systems in which they live and in relation to their goals, expectations, standards and concerns. It is a broad ranging concept affected in a complex way by the person's physical health, psychological state, level of independence, social relationships, personal beliefs and their relationship to salient features of their environment". Over a billion people are estimated to live with some form of disability. This corresponds to about 15% of the world's population. Between 110 million (2.2%) and 190 million (3.8%) people 15 years and older have significant difficulties in functioning. This number continues to grow due to the increasing prevalence of chronic diseases, malnutrition, HIV/AIDS, substance abuse, accidents, and other causes(2015). Statistics proves that in Thailand there are a total of 1,871,073 persons with disabilities out of which 780,782 persons are affected with some kind of physical disability. In Thailand, physical disabilities accounts for the highest kind of disability at 56.9 %, following, visual disabilities 19.8 %, intellectual/learning 9.9% and hearing and communication 6.2 %. In Thailand, the third highest cause of disability is road traffic accidents (9% of the total causes). By 2020, road traffic accidents will be

ranked as the third leading cause of disease burden measured in disability-adjusted life years. People are left with Quadriplegia, paraplegia, brain damage, amputation and other behavioral disorders are among the disabilities common among survivors of such severe road accidents. Most at risk in such accidents will be men and women aged 15 to 44 ((NEP 2014)

Residential Institutionalized Centers are “centers where there is a specific need that cannot be managed by the community. The center has a specific set of values, behaviors and cultures (institutions) that are unique and not used in the wider community(Anderson 2010).

Center for Independent Living Centers (CIL) are non-profit organizations that are designed and operated by people with disabilities”. CILs are unique in that they operate according to a strict philosophy of consumer control, wherein people with all types of disabilities directly govern and staff the organization. Centers for Independent Living provide peer support, information and referral individual and systems advocacy and Independent Living Skills Training(2014). Most persons with disabilities opt to live in residential institutionalized center which comes under the concept of Independent Living (IL) which was introduced to Thailand in 2002. The Center for Independent Living (CIL) was established to expand and guide the IL project in Thailand. Thailand Council for Independent Living (TIL) was established, in 2006 to coordinate information exchange between IL centers in Thailand, support CIL and manage the growing network in Thailand. There are currently 13 CIL in 6 provinces in Thailand. The office is supported by local government; with the need to raise further funds(Henderson 2011). The 8 institutionalized centers that are Chonburi, Nonthaburi, Phuttamonthon, Bangkok, Pathumthani, Nakon Sawan, Khon Kaen and the Redemptorist School in Chonburi have participated in the study.(2012).

Independent living has certain objectives which are:

1. To promote the knowledge of persons with disability and independent living in the disabled community.
2. Create professionals who can help persons with disabilities based on the concept of independent living for people with disabilities.
3. Promote and develop a new generation of young people with disabilities that can work and spread the nature of independent living.

4. Protect rights of persons with disabilities in all aspects of social development.

5. Develop projects and create academic disabilities to be recognized both in Thailand and in Asia and the Pacific. (FEPD, 2015)

Redemptorist Vocational School for People with Disabilities- Fr.Ray founded the Redemptorist Vocational School for the Disabled. This school was designed to serve the physically disabled. After experimenting with various courses and looking at what would be most profitable to students, they decided that computer skills and repair of electronic equipment would best fit the bill. In 1987 the first class trained in electronics left the school for a six month apprenticeship in various radio shops throughout the Kingdom. In December 1999, offices in a building on the Redemptorist Center grounds were turned over to the newly created Job Placement Agency for the Disabled. This was not just for graduates from Vocational School, but for all disabled Thais. Today, many 1,000 students, staff and volunteer is a part of this school.

In this study, nature of accessibility to health care services is focused on four concepts of accessibility which are geographical accessibility, financial accessibility, functional accessibility and cultural accessibility. There are international movements toward identifying and eliminating physical, social and cultural barriers experienced by persons with disabilities. In the United States, the Americans with Disabilities Act was introduced in 1990 (Reeves 2005) and the Surgeon General issued a “Call to Action to Improve the Health and Wellness of Persons with Disabilities”(Rockville 2005). Nonetheless, according to WHO governments can improve health outcomes for people with disabilities by improving access to quality and affordable health care services, which makes the best use of available resources. Efforts to reduce health care barriers among persons with disabilities are not unique to Thailand. Even though disabilities studies have been done in Thailand, there has been very few studies and understanding on the quality of life. This study is thus intended to fill this knowledge gap for studies in Thailand and attempt to investigate whether there is an association between the accessibility to health care services and health-related quality of life for persons with physical disability in Thailand.

1.2 Research Hypothesis

There are associations between health related quality of life of persons with physical disabilities (PWD) with socio demographic, degree of physical disability, religion and accessibility to health services.

1.3 Research Questions

1. What is the perceived health related quality of life for persons with Physical disability in Thailand?
2. What is the relationship between socio demographic and health related quality of life?
3. What is the relationship between degree of physical disability and health related quality of life?
4. What is the relationship between accessibility to health services and health related quality of life?

1.4 Study Objective

1.4.1. General Objective

To describe, the dependent variable the HROL (QOL) in persons with disabilities, the independent variables of QOL and their associations.

1.4.2 Specific Objectives

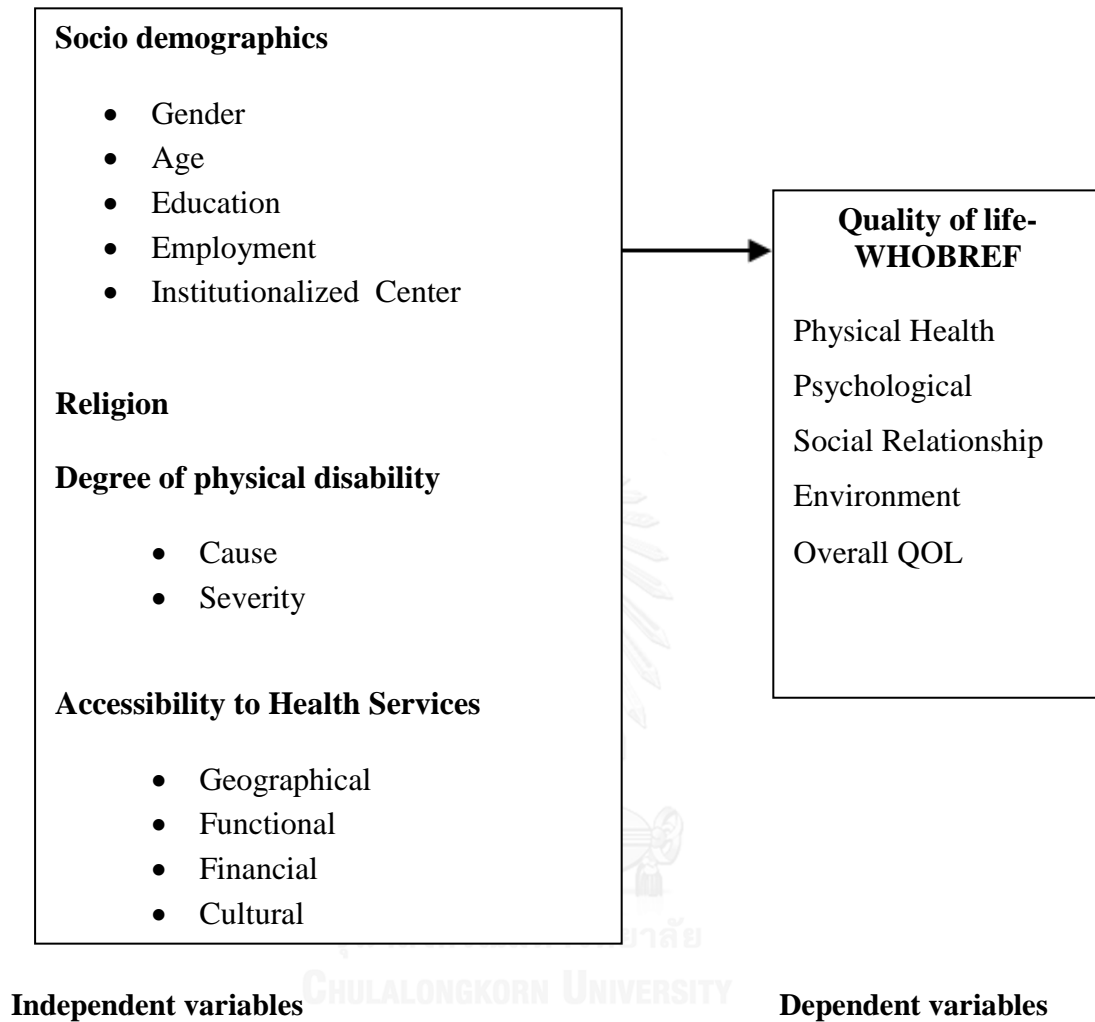
1.4.2.1 To assess the health related quality of life of persons with Physical disability in Thailand

1.4.2.2 To assess the relationship between socio demographic and health related quality of life of persons with physical disability in Thailand.

1.4.2.3 To assess the relationship between degree of physical disability and health related quality of life of persons with physical disability in Thailand.

1.4.2.4. To explore the relationship between accessibility to health services and health related quality of life of persons with physical disability in Thailand.

1.5 Conceptual Framework



1.6 Operational Definitions

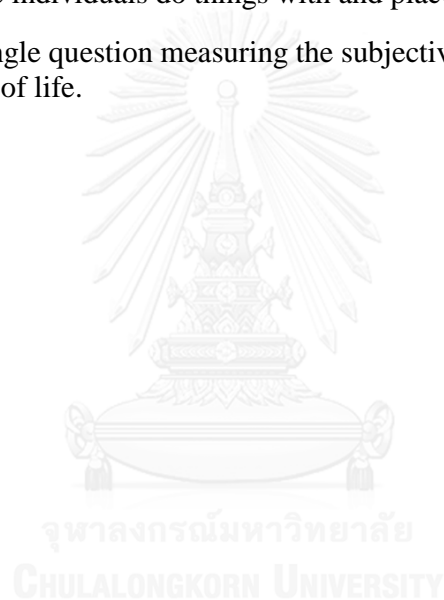
In this study, there are both independent and dependent variables.

1.6.1 Independent Variables

- Gender: refers to the sex of the person either male or female
- Age: how old the respondent is during answering the questionnaires using self-report technique
- Education: is the level of education, primary, secondary, bachelor, master and doctoral degree.
- Institutionalized Center: are independent living centers or school/foundation in which the respondents are engaged in
- Employment: the current position of the respondent i.e.-paid work, student, house maker, volunteer, etc.
- Physical disability: refers to total or partial loss of a person's physical functions (mobility) or body parts.
- Degree of Physical disability: refers to the extent of the physical disability which comprises of causes (reason of the disability and severity (the intensity of the disability)).
- Religion: is the collection of beliefs and practice such as Buddhist, Christian, and Islam etc.
- Geographical accessibility: refers to the choice of health center, travel time to the chosen health center, the physical distance from living place to the health center, and the difficulty level in reaching the health center.
- Functional accessibility: measures the convenience of waiting time, the amount of waiting time, satisfaction level of waiting time and satisfaction level of quality of treatment.
- Financial accessibility: refers to whether or not the respondent has a disability card, whether or not they are charged for consultation and whether or not they are prescribed expensive medications.
- Cultural accessibility: refers to the privacy the respondent gets at the health center, i.e. proper/ private examination room or secured curtains.

1.6.2 Dependent variables

- Physical Health: energy levels, mobility, and the daily activities an individual can possess.
- Psychological: personal emotions an individual personal development, the things that individuals are interested in learning about, and things that they enjoy and are important to them.
- Social relationships: support and help individual's, relationships with family and friends, and the types of activities that individuals do with people in their lives.
- Environment: the activities or things individuals do and would like to do in the community, the people individuals do things with and places they go in their community.
- Overall QOL: is a single question measuring the subjective perception of the respondent about is general quality of life.



CHAPTER II

REVIEW OF LITERATURE

In order to fulfill the thesis topic on “Assessing the quality of life of persons with physical disabilities in residential institutionalized centers, Thailand,” the researcher has reviewed the following concepts to help in designing the survey questionnaire.

2.1 Definition of Health

Saracchi defines health as “a condition of well-being, free of disease or infirmity, and a basic and universal human right(Sarrachi 2005). Thailand's health system under the Universal Coverage Scheme has health protection coverage for 99.5% of the population. Thailand has achieved universal coverage with low levels of spending on health but it has significant challenges i.e. rising costs, inequalities, and duplication of resources(BANK. 2012).

2.2 Concepts of Quality of Life

QOL refers to the adequacy of people’s material circumstances and to their feelings about these circumstances. Indicators include personal wealth and possessions, feel of safely, level of freedom, and opportunity; health status also forms one of many components in this broad concept(Dowell 2006).

An expert group meeting convened by the Economic and Social Commission for Asia and Pacific (1995)developed a model for a survey of the QOL including six components as follows:

(1) Health: health is a key aspect of the QOL not only in its own right but in its implications for all other QOL components. People need a minimum standard of health in order to be able to work, support themselves and their families, contribute to society and take advantage of the recreational and cultural opportunities in their environment. Disease illness and disability greatly affect labor productivity, resource saving, and population growth.

(2) Education: like health, education is not only a key component of the QOL, but has pervasive implications for all others as well. In this regard, education must be viewed

in all its dimensions: the acquisition of formal education, as represented by literacy, numeracy and other skills, as well as non-formal education, relating to the wider world, such as socialization and culturalization processes, which are both essential contributors to the QOL

(3) Working life: in addition to its income-generating function, working life has important implications for the overall QOL by way of its provision of opportunities for self-fulfillment through personal development as well as social mobility. The quality of work and the working environment undoubtedly have a fundamental impact on people's lives, since a substantial part of most adults' time is spent at work.

(4) Physical environment: the physical environment is defined here as comprising the built environment infrastructure created to support human activity as well as the natural environment. Safe drinking water and adequate sanitary facilities have a tremendous impact in diminishing the risk of endemic diseases and improving general health conditions.

(5) Family life: the conditions of family life have an immediate impact on the QOL of every individual and are also critical determinants of the QOL. At the same time, the family, as the basic social and economic institution, is greatly affected by the social problems associated with economic change. Both family function and restructure are for adapting to the changing socio-economic environment. As part that process, the roles of family members are also undergoing a transition.

(6) Poverty: poverty is defined as the inability to meet the individual's basic needs. It must thus be seen within the context of human needs. However, human needs vary from one country to another as well as among social groups within countries. Furthermore, they include a perceptual element which also varies among social groups and individuals overtime.

2.3 Measuring QOL

QOL has both objective and subjective components. Subjective component includes about feeling good and being satisfied with the things in general. Objective component includes fulfilling the societal and cultural demands for material wealth, socioeconomic status, education, housing, neighborhoods, physical functioning and wellbeing (Rapley 2003).

Several sets of QOL instruments have been developed worldwide to assess QOL. There are two types of instruments: disease-specific and generic.

Disease-specific type of instruments is intended to assess patients with particular diseases such as cancer, epilepsy, and so on. Generic type of instruments is intended for general use.

i) International Development THE WHOQOL

A self-report questionnaire that contains 26 items and addresses 4 QOL domains: physical health (7 items), psychological health (6 items), social relationships (3 items) and environment (8 items). Two other items measure overall QOL and general health. Items are rated on a 5-point Likert scale (low score of 1 to high score of 5) to determine a raw item score. Subsequently, the mean score for each domain is calculated, resulting in a mean score per domain that is between 4 and 20. Finally, this mean domain score is then multiplied by 4 in order to transform the domain score into a scaled score, with a higher score indicating a higher QOL. When transformed by multiplying $\times 4$, each domain score is then comparable with the scores used in the original WHOQOL-100. Therefore, the WHOQOL-BREF is a reliable and valid survey instrument for measuring the four domains of quality of life as well as overall global quality of life (World Health Organization 2014).

i) a. WHOQOL-BREF-Scoring and Levels

Qol Domains	Low	Moderate	High
1. Physical health	7-16	17-26	27-35
2. Psychological	6-14	15-22	23-30
3. Social relationships	3-7	8-11	12-15
4. Environment	8-18	19-29	30-40
5. Overall QoL	2-4	5-7	8-10
Total Scores	26-60	61-95	96-130

ii) WHODAS 2.0

The World Health Organization Disability Assessment Schedule II (WHODAS II) is a new health related quality of life (HRQOL) instrument developed by the WHO. It has a number of advantages compared to existing instruments, including the fact that it is based on an international classification system, it is applicable across cultures, it treats all disorders at parity when determining the level of functioning, and it assesses some important functional and health related issues, including sexuality, cognitive function, personal interactions and participation in society. Very little has been published with respect to its psychometric properties. A valid new HRQOL instrument should correlate well with other well accepted measures of global health. The questions in each domain should be answered considering a limited time-span: the last thirty days of a person's daily life. The participants interviewed by means of the WHODAS II are asked to indicate the experienced level of 'difficulty' by taking into account the way in which they normally perform a given activity, and including the use of whatever support or/and help by a person (aids (Fedrici 2004)).

iii) Relation with WHO Quality of Life instrument

WHO has also developed the Quality of Life (WHOQOL) instrument, which assesses subjective wellbeing in different areas of life. Conceptually, the constructs of quality of life and functioning are often seen as interchangeable. Although these constructs are indeed interrelated, WHODAS 2.0 measures functioning (i.e. an objective

performance in a given life domain), while WHOQOL measures subjective well-being (i.e. a feeling of satisfaction about one's performance in a given life domain). Ideally, the same life domains should be used in both instruments. Whereas WHODAS 2.0 asks what a person "does" in a particular domain, WHOQOL asks what the person "feels" in that domain(Üstün 2009).

2.4 Review of studies on Health Related Quality of Life of Persons with disabilities

A study in China found that persons with disabilities are less involved in social activities than people without physical disability, which is associated with lower level of well-being, including their relative poorer quality of life (QOL). Quality of life was influenced many factors, most studies have focused on demographic factors (e.g. age, gender, education, etc(Howitt 2011). A study in Queensland Australia proves that QOL for people with Spinal Cord Injury was significantly poorer compared to the able bodied people, this was due to the severity of disability. The WHOQOL-BREF was used as a QOL assessment. Therefore, the study proves that persons with physical disability have poorer QOL(R N Barker 2009).

2.5 Measuring degree of physical disabilities

Physical disability results in the total or partial loss of a person's bodily functions (eg walking, gross motor skills, bladder control etc) and total or partial loss of a part of the body (eg a person with an amputation). Physical disability may happen from birth or be acquired later in life, a person's disability may be apparent, such as loss of a limb, or hidden, such as epilepsy or post-polio syndrome. Disability may also be caused due to illness(2009).

Censuses and surveys from around the world take very different approaches to measuring disability. Three major purposes for collecting data on disability include, monitoring the level of functioning in a population, designing service provision, and assessing the equalization of opportunity. The needs and accommodations for people with more significant disabilities can be quite different than for those with moderate or mild disabilities. Even the indications "mild, moderate, or severe" can vary from one study to

another and might not be compared effectively. According to World Bank, a study “People with Disabilities in India”, “measures disability by categorizing the level of assistance needed for example cannot take care of self even with aid-appliance, can take care of self only with aid-appliance, can take care of self without aid-appliance, Aid-appliance not tried/available”. The study in India shows that majority of persons with disabilities were in the most severe category, which was not able to take care of themselves(Mont 2007).

2.6 Review on degree of physical disabilities and health related quality of life

A study on Health-related Quality of Life of Nigerian Children with Cerebral Palsy explains that severity of disability had a significantly negative impact on HRQOL of children with cerebral palsy. Age had a significant effect on health-related quality of life of children with cerebral palsy. There was no significant difference between age and physical function(Tella 2011). This study is similar to the study in Northeast Thailand which claims that majority of person with physical disability did not have any underlining disease or illness (54.33%). The top three underlining diseases were hypertension (23.59%), DM (18.62%), and cardiovascular disease (7.36%)(Wongkongdech A 2014).

A study in Northeast regarding the activity of daily living based on Barthel Index, suggested that 37.9% of the PWMDs had some degrees of dependency, which could be the physically, psychologically and financially burdens to the caregivers and other family members (Wongkongdech A 2014)

Findings on a study of physical disability in China, explains that severity of disability, namely the activity limitation and participation restriction has been well recognized as an objective health-related factor that influences the QOL of PWPD. But even with lower degrees of severity of disability, person with disability do not necessarily have higher levels of QoL”(Zheng 2014).

2.7 Religion

According to the Thai Government's National Statistics Office, “Thailand has 94.6% Buddhist, 4.6% Muslim, 0.7% Christian, 0.1% various other religions”(2014).

Review of studies on Health Related quality of life and Religion

A study shows that there is a relationship between religion and quality of life. The study explained importance of religion in life was significantly associated with lower pain rating. A possible explanation is that patients that are more religious have greater social support, hope, optimism, sense of meaning of life and self-control(Giancarlo Lucchetti 2011).

A study on religious beliefs and practices of Buddhism associated with disability in chronic lower back pain revealed that “the religious beliefs and practices of Buddhism were significantly associated with psychological stress but not with disability”. Workers with high religious beliefs and practices of Buddhism had lower psychological stress. The findings confirm the results of previous studies regarding the effect of religious beliefs and practices of Christianity on psychological conditions(Sooksawat 2013).

A study on 'Religion Among Disabled and Nondisabled Persons' states that elderly hospitalized veterans religious coping was the key to reducing pain, that religious involvement of either type will have special psychosocial benefits for the disabled(L.Idler 1997).

A study on physically disabled middle-aged women in Khon Kaen (Northeast) province in Thailand showed that the physically disabled women are affected by Buddhism, and the beliefs in ghosts and supernatural beings. "This belief is affected by the Buddhist teaching that life is a chain of rebirths where there is a continuous rebirth in a human or animal form, in either gender, depending on deeds or karma of the previous life: What we are now is the result of what we were and have been before' and 'Do good, receive good; do evil, receive evil". Buddhism teaches people with disabilities and their families to be patient and to believe that bad karma can be slowly washed away with good deeds or once the karmic debt is repaid and so will the quality of life of the disability get better(P 2007).

2.8 Accessibility to health care services

Accessibility is a characteristic of the resources themselves that renders these resources more or less easy to use. According to Levesque several dimensions of access can be measured that is geographical accessibility (geographical availability) is based on (physical and temporal) distance between the location of users and the provision of

services. Organizational accessibility (organizational availability) is based on schedules and procedures to follow that constitute constraints for individuals. Social accessibility is the compatibility between services offered and the social and cultural characteristics of individuals. Lastly, economic accessibility is related to the costs of services in association to individuals' socio-economic status (J.F. 2003).

Geographical accessibility: it is the transportation, travel time, the physical distance from living place of people to the primary care facility. This distance is measured not only by how far but also by how difficult, how long to reach it, because the characteristics of the distance are reflected by the process of going to the health facility.

Functional accessibility: it's the process of managing of care to those who need it. The method in which it's given to patients affects the accessibility to care.

Financial accessibility: it is the payment for the use of services. The amount of payment is the mean of measurement only when one relates it to the ability to pay by people. The Universal Coverage scheme is financed through general tax revenues paid to local contracting units on the basis of population size. (2012)

Cultural accessibility: it relates to the appropriateness of methods used with the cultural patterns of the community.

2.9 Health-related quality of life and accessibility to health care services

Donald L. Patrick and Marilyn Bergner stated that two major purposes for continued development of health-related quality of life measures are improving the quality of health care and reducing inequities in health. Increasing the potential for health and eliminating influences that detract from health are assumed to improve health-related quality of life outcomes. Further work is needed to incorporate the measures of health-related quality of life in the examination of inequities in health and their association with access, use of services, and effectiveness over a long period of time. Even if these data are imperfect or primitive, the effects of improving accessibility and quality of health care can only be assessed adequately in terms of the health-related quality of life of the nation (Patrick 1990).

A study in Metropolitan Philadelphia region shows that 30% of the respondents explained that they encountered physical barriers in accessing their doctor's office, equipment, and/or washrooms, 19% indicated that they felt they were receiving

inadequate primary healthcare, and 22% felt that their disability is an obstacle in accessing adequate primary healthcare services(Veltman A 2001). Studies in the US shows that women with disabilities were less likely to receive preventive healthcare services for breast and cervical cancer compared to women without physical disabilities(Nosek MA 1997).

Ren and Amick, stated that self-reports of health depends on cultural factors, ethnicity and access to health care(Ren X 1996). After an intensive literature search, few studies in other countries have been done to identify the association between the accessibility to health care services and health-related quality of life among persons with physical disability. According to a study on 'Access to services and complications experienced by disabled people in Thailand' proves that majority of persons with disabilities depend on the state welfare system. Less than half had accessed to continuing of physical rehabilitation services, and majority had other complications. The study believes that an early access to physical rehabilitation services and continuing access are needed to prevent further disabilities(Wanaratwichit C 2008).

CHAPTER III METHODOLOGY

3.1 Research Design

This study is a cross-sectional quantitative study to 'Assessing quality of life of persons with physical disabilities in residential institutionalized centers, Thailand'.

3.2 Research Methodology

3.2.1 Study Area

The study area is mainly at the Redemptorist Foundation for People with Disabilities-RFPD, Chonburi Province and 7 out of 13 Independent living centers in regions around Thailand.

3.2.2 Study Period

After the approval from ethical committee in November and December 2015.

3.3 Study Population and Research Subjects

The study population is persons with physical disabilities ≥ 18 years of age has been collected at the Redemptorist Foundation for People with Disabilities-RFPD, Chonburi Province and 7 independent living centers which are Chonburi, Nonthaburi, Phuttamonthon, Bangkok, Pathumthani, Nakhon Sawan, Khon Kaen. A total of 8 institutionalized centers.

3.4 Sample Size

Sample size in the research is calculated by the following formula

n = sample size

Z = standard value for 95% confidence interval = 1.96

E = the margin of error = 1

= the standard deviation = 6.95

Sample size =

$$n = \left[\frac{Z_{\alpha/2} \cdot \sigma}{E} \right]^2 = \left[\frac{1.96 \cdot 6.95}{1} \right]^2 = [13.62]^2 = 185.55 = 186$$

With addition of 10% participants to cover missing values the total sample seized is 204 rounded off to 200(2000-2015).

3.5 Sampling techniques

Convenience Sampling technique was used - the subjects were selected just because they were easiest to recruit for the study and the researcher did not consider selecting subjects that are representative of the entire population. Respondent from the The Redemptorist Foundation for Persons with disabilities and the Independent Living centers was selected by the assigned volunteers.

- i. Inclusion criteria of the subjects are (1) Persons with physical disabilities that are literate (2) age between 18 and above (3) willing to participate in the research (4) Thai residence.
- ii. Exclusion Criteria of the subjects are (1) Persons with physical disabilities that have other disabilities (eg: mental disabilities, low vision, deaf/ hard of hearing, learning disabilities).

3.6 Pilot Study

The questionnaire was used as pilot test for 20-30 respondents in the Thai Red Cross Rehabilitation Center, in Samut Prakarn province, tentatively during September 2015, which was after the researcher's thesis proposal examination during the process of ethics request. The Thai Red Cross Rehabilitation Center is chosen because it has

similar characteristics as the The Redemptorist Foundation for People with Disabilities-RFPD and Independent Living Centers. The similar characteristics are that all patients admitted have some kind of physical disability (mainly Spinal Cord Injury, Muscular dystrophy, Cerebral Palsy and Stroke), the rehabilitation program is like a school program and all patients admitted are Thai residence.

3.7 Measurement Tools

Face-to-face interview for the questionnaire was used as a measurement tool. The questionnaire consists of five parts which are as follows

Part 1: Questionnaire is about socio-demographic this section covers gender, age, education, occupation and institutionalized center (5 questions)

Part 2: Questionnaire is about Religion (2 questions)

Part 3: Questionnaire is about Physical Disability this section covers cause of disability and severity of disability (5 questions)

Part 4: Questionnaire is about the health related services this section covers 4 parts which are geographical accessibility (3 questions), functional accessibility (3 questions), financial disability (2 questions) and cultural accessibility (1 question)

Part 5: Questionnaire is about WHOQOL-BREF this section covers 26 items which covers 5 parts Physical Health, Psychological, Social relationship, Environment, and Overall QOL (26 questions)

3.8 Reliability

The internal consistency coefficient by Cronbach's alpha (α) for the part 1-4 of questionnaire was 0.73. For part 5 WHOQOL-BREF, reliability from previous research, has been found.

3.9 Validity

For part 1-4 in the questionnaire "The three experts were Assoc.Prof. Ratana Somrongthong, Dr.Korrawan Yodmai, Donnapa Hongthong, RN,Ph.D who were invited to critique the questionnaire" and questionnaire part 5 has been validated by WHO.

The volunteer who works as a social worker at the The Redemptorist Foundation for People with Disabilities-RFPD translated the questions from English to Thai and the researcher, being familiar with both languages did a back translation. Once it was translated in Thai, the questions that the researcher felt have been translated incorrectly or if we did not agree on certain changes, we showed it to a third party, who is a lecturer/volunteer from the Redemptorist Center itself. Once all the changes were made we went through it one final time, before distributing the questionnaire for the pilot study.

3.10 Data Collection

Data was collected by giving out questionnaires by research volunteers. The volunteer at the The Redemptorist Foundation for People with Disabilities-RFPD is a social worker and research volunteers from each Independent Living Centers who has knowledge regarding disabilities and issues on disabilities has helped with data collection. The volunteers assisted the respondents that are unable to fill the questionnaires by themselves. To assure reliability in the process the 'Translation and back translation' for the questionnaire was used. There were a total of 8 volunteers, one from each institutionalized center. Each of them was trained to explain questions that were ambiguous to the respondents. Almost 80% of the respondents filled in the questionnaire by themselves.

3.11 Data analysis

After the data collection, data was coded; an analysis was performed by using SPSS statistical software, version 17, licensed for Chulalongkorn University.

Descriptive statistics of frequency, percentage, mean and standard deviation were calculated for the subject characteristics, i.e socio-demographic, physical disability, religion and accessibility to health services.

Inferential statistics: the relationships between the independent and dependent variable was presented by-

1. Pearson's Correlation in the correlations between two continuous variables which reflects the degree to which the variables are related.
2. One-way ANOVA for distribution of each group with normal distribution for more or two groups and statistical significant was set as $p < 0.05$.

3. Independent Samples T-test (unpaired t-test) was also used for age and for all the quality of life scores.

3.12 Ethical Consideration

Before conducting the research, approval from the Ethical committee of Chulalongkorn University, college of Public Health Sciences was obtained (certificated code number No.116.1/2015). Before interviewing the respondents, the researcher and assistant researchers was given clear verbal explanation to each potential respondent on the purposes of the study.

- Each respondent was informed that participation in this study is completely voluntary and an informed consent was obtained from the respondent who was willing to participate in this study.

- It was expected that findings will be useful for the review and understanding of the health care services system in the future. The participant information and informed consent form can be found in the Appendix.

3.13 Limitations

Respondents in this study have relatively high QOL which is contrary to most studies related to health related quality of life; the reason could be that this study was done in residential institutionalized region rather than community. Also, there was 100% employment in this study. It is recommended to conduct additional studies and recruiting greater number of participants in different region and different institutionalized centers.

The level of income is usually associated with quality of life as explained in the study in Northeast of Thailand where respondents were unemployed. However, some reported that they had monthly income fewer than THB 1,000 from various sources such as welfare, compensation from social security, whereas other reported to have receiving support directly from the family. In this study income was not investigated because during piloting the researcher was advised that question was too sensitive for this kind of population. This subject would be better investigated through a qualitative research method or an in-depth interview.

The study started with using WHODAS as a questionnaire part 5 for finding the quality of life for persons with physical disabilities but the questionnaire was too long and confusing, so WHOQOL-BREF was used instead.

3.14 Expected benefits and application

The study gives a baseline data on the health related quality of life using WHOQOL-BREF among persons with physical disabilities.

The study is to assess and determine the quality of life of individuals with physical disabilities, by looking at socio demographic, religion, degree of physical disabilities, and accessibility to health services as dependent variables. In combination with other research findings, this study should help in better understanding, identifying and improving health services and quality of life for persons with physical disabilities.

CHAPTER IV

RESULTS

Descriptive results include socio-demographic characteristics of respondents, degree of physical disability, religion, accessibility to healthcare and health related quality of life. Inferential analyses looks at the associations between independent variables and HRQOL variables among persons with physical disabilities.

4.1.1 Socio-demographic (N = 200)

Most respondents were male (69.5%) and majority were between 31-40 years of age (40.5%). Most respondents completed primary school (70%) and high school at (35%). All respondents were employees working at the IL centers or The Redemptorist Foundation for People with Disabilities-RFPD (see details in table 1).

Table 1. Socio-demographic characteristics

Characteristics		Frequency (N)	Percentage (%)
1. Gender	Male	139	69.5
	Female	61	30.5
2. Age	< 31 years old	72	36.0
	31-40 years old	80	40.0
	41-50 years old	39	19.5
	> 50 years	9	4.5
3. Education	No Education	17	8.5
	Primary School	70	35.0
	High School	34	17.0
	Diploma	40	20.0
	Bachelor Degree	6	3.0
	Master Degree	32	16.0
	Doctoral degree	1	0.5
4. Occupation	Employee	100	100.0

2. Residential Institutionalised Centers (N = 200)

Among the respondents (50%) were from the 7 Independent Living Centers (n=100) and another (50%) is from The Redemptorist Foundation for People with Disabilities-RFPD (n=100) (see details in table 2).

Table 2. Residential Institutionalised Centers characteristics

Characteristics		Frequency (N)	Percentage (%)
5. Institutionalized Centers	1) IL Chonburi	20	10.0
	2) IL Nonthaburi	10	5.0
	3) IL Phuttamonthon	10	5.0
	4) IL Bangkok	20	10.0
	5) IL Pathumthani	15	7.5
	6) IL Nakon Sawan	10	5.0
	7) IL Khon Kaen	15	7.5
	8) The Redemptorist Foundation for People with Disabilities-RFPD	100	50.0

3. Religion

Majority of the respondent are Bhuddhist (91.5%) and (8.5%) are Christian. Most respondents (77.5%) felt that their religion or religious practice helps them cope with their disability (see details in table 3).

Table 3. Religion characteristics

Characteristics		Frequency (N)	Percentage (%)
6. Religion	Buddhist	183	91.5
	Christian	17	8.5
7. Religion helps cope	Cope	155	77.5
	Does not Cope	45	22.5

4.1.2 Physical disabilities

The most common cause of physical disability is accident, accounting for (70%) of the respondent and (17.5%) was disabled since birth.

The level of physical disability were mainly leg disability (73.5%) followed by arm and leg disability (13.5%). From data, the number of years of disability (57.5%) were between 1-10 years. (91.5%) of respondents did not have other underlying illness.

Most respondent (78.5%) were self dependent on equipments to help with daily activities (see details in table 4).

Table 4. Physical disability characteristics

Characteristics		Frequency (N)	Percentage (%)
8. Causes of disabilities	Since birth	35	17.5
	Accident	141	70.5
	Illness	24	12.0
9. Level of disabilities	Arm/arms disabilities	26	13.0
	Leg/legs disabilities	147	73.5
	Arms and Legs disabilities	27	13.5
10. Years of disabilities	1- 10 years	115	57.5
	11 – 20 years	53	26.5
	21 – 30 years	11	5.5
	31 – 40 years	16	8.0
	41 – 50 years	5	2.5
11. Underlying illness	Don't have	183	91.5
	Have	17	8.5
12. Self-dependent	SD	25	12.5
	SD with tools	157	78.5
	SD with tools and care taker	13	6.5
	Not SD	13	2.5

4.1.3 Health care Accessibilities

Geographical accessibility

Among the 200 respondents, 143 of them (71.5%) goes to hospital and (20%) goes to clinics. About 97 respondents or (48.5%) travel a distance of approximately 5-10 kms to receive their healthcare, (48.5%) responded that it takes them duration of 10-30 minutes to reach their health care facility; for the others (40.5%) responded it takes less than10 minutes.

Functional accessibility

Due to physical disability (88.5%) of respondent find it difficult to get to their healthcare centers. A large number of respondents (78.5%) find that facilities are not easily accessible for person with disability, (61.5%) are dissatisfied with the services provided.

Financial Accessibility

Most respondent (73.5%) uses the social security card scheme (SSS) and the other (26.5%) uses the disability right card (under the UCS). Most respondents (76.4%) do not have to pay any other expenses, which is covered under the universal coverage.

Cultural Accessibility

Almost all the respondents (98%) believe that cultural accessibility is available, meaning healthcare centers takes care of respondents privacy (i.e have curtains or separate consultation rooms) (see details in Table 5).

Table 5. Accessibility characteristics

Characteristics		Frequency (N)	Percentage (%)
13. Health Care facility	Gov/Hospital	143	71.5
	Clinic	40	20.0
	Pharmacy	17	8.5
14. Distance to Health Care facility	< 5 km.	81	40.5
	5 – 10 km.	97	48.5
	> 10 km.	19	9.5
	Other	3	1.5
15. Time taken to reach Health Care facility	< 10 min.	81	40.5
	10 – 30 min.	97	48.5
	> 30 min.	19	9.5
	Other	3	1.5
16. Convenience to reach Health Care facility	Easy access	23	11.5
	Not Easy	177	88.5
17. Health Care facilities for disabled	No	157	78.5
	Yes	43	21.5
18. Quality of health care service	Very satisfied	10	5.0
	Satisfied	48	24.0
	Dissatisfied	123	61.5
	Very dissatisfied	19	9.5
19. Disability Card	Yes	53	26.5
	No	147	73.5
20. Other expenses	Yes	48	24.0
	No	152	76.0
21. Privacy of physical examination	No	4	2.0
	Yes	196	98.0

4.1.5 Quality of Life – WHOBRF (N = 200)

Each domain of quality of life includes low, moderate and high scores. Most respondents had a moderate level of quality of life, 92% level in physical health domain, 98% in psychological health domain, 64.5% in social relationships, 79.5% in environment domain and 85% in overall QOL domain (see details in table 6).

Table 6. Health Related Quality of life characteristics

Characteristics		Frequency (N)	Percentage (%)
Physical Health Domain	Low	15	7.5
	Moderate	185	92.5
	Min 15-Max 22		
	Mean \pm SD	18.76 \pm 1.508	
	Median	19.00	
Psychological Health Domain	Low	3	1.5
	Moderate	196	98.0
	High	1	0.5
	Min 14- Max 23		
	Mean \pm SD	17.58 \pm 1.735	
	Median	17.00	
Social Relationships Domain	Low	71	35.5
	Moderate	129	64.5
	Min 3- Max 11		
	Mean \pm SD	7.95 \pm 1.514	
	Median	8	
Environment Domain	Low	41	20.5
	Moderate	159	79.5
	Min13-Max 26		
	Mean \pm SD	20.28 \pm 2.389	
	Median	13	

Characteristics		Frequency (N)	Percentage (%)
Level of Overall QoL	Low	24	12.0
	Moderate	171	85.5
	High	5	2.5
	Min 3- Max 8		
	Mean \pm SD	5.96 \pm 1.109	
	Median	6.00	

4.2.1 Relationship between Socio-demographic characteristics and health related quality of life

4.2.1.1 Relationship between WHOBRF and Gender and analyzed by Independent Samples T-test (unpaired t-test)

The independent t-test was used to analyze the association between gender and the mean value of health related quality of life. The result showed that females living with physical disability did not have much difference compared to male's quality of life (see details in table 7).

Table 7. Gender and health related quality of life

QOL Domains	Male Mean \pm SD (N=139)	Female Mean \pm SD (N=61)	t	D f	P- value
Physical Health	18.81 \pm 1.536	18.66 \pm 1.448	- 0.647	198	0.991
Psychological	17.55 \pm 1.750	17.66 \pm 1.712	0.408	198	0.609
Social Health	7.94 \pm 1.432	7.95 \pm 1.717	0.036	198	0.132
Environmental	20.38 \pm 2.332	20.03 \pm 2.516	- 0.950	198	0.684
Overall QOL	70.63\pm4.312	70.28\pm4.180	- 0.540	198	0.245

4.2.1.2 Relationship between WHOBRF and Age

There is significant weak inverse relationship between age and the HRQOL domains, found in overall QOL. Psychological, and Social Health, Environmental domains found positive weak statistical significant relationship between age and HRQOL Pearson Correlation was used to analyze the following (see details in table 8).

Table 8. Age and HRQOL

QOL Domains	Pearson Correlation Sig. (2-tailed)	t-table
Physical Health	0.155	0.028
Physiological	0.105	0.137
Social Health	0.062	0.385
Environmental	0.006	0.993
Overall QOL	-0.0014	0.843

Correlation is significant at the p-value 0.05

Correlation is significant at the p-value 0.01

4.2.1.3 Relationship between WHOQOL-BREF and Education Characteristics analyzed by One-Way ANOVA

The relationship between health related quality of life and education, the study finds strong statistical significance in environmental (0.017) social (p=0.007) and overall Qol domain (0.006) (see details in table 9).

Table 9. WHOQOL-BREF and Education

Characteristic	Sum of Squares	df	Mean Square	f	Sig.
Physical Health					
Between group	.002	1	.002	.001	0.975
Within group	452.478	198	2.285		
Total	452.480	199			
Psychological					
Between group	.002	1	.002	.001	0.980
Within group	598.718	198	3.024		
Total	598.720	199			
Social Health					
Between group	16.579	1	16.579	7.464	0.007
Within group	439.816	198	2.221		
Total	456.395	199			
Environmental					
Between group	32.010	1	32.010	5.742	0.017
Within group	1103.856	198	5.575		
Total	1135.875	199			

Characteristic	Sum of Squares	df	Mean Square	f	Sig.
Overall QOL					
Between group	135.019	1	135.019	7.671	0.006
Within group	3484.865	198	17.600		
Total	3619.875	199			



4.2.2.1 Relationship between WHOQOL-BREF and Residential Institutionalized Centers analyzed by One-Way ANOVA

The relationship between any of the five measurements of health related quality of life and the eight institutionalized centers, the study finds no statistical significance (see details in table 10).

Table 10. WHOQOL-BREF and Residential Institutionalized Centers characteristics

Characteristic	Sum of Squares	df	Mean Square	f	Sig.
Physical Health					
Between group	4.603	2	2.301	1.012	0.365
Within group	447.877	197	2.273		
Total	452.480	199			
Psychological					
Between group	.201	2	.105	.035	0.966
Within group	598.510	197	3.038		
Total	598.720	199			
Social Health					
Between group	2.631	2	1.315	.571	0.566
Within group	453.764	197	2.303		
Total	456.395	199			
Environmental					
Between group	17.636	2	8.818	1.553	0.214
Within group	1118.239	197	5.676		
Total	1135.875	199			
Overall QOL					
Between group	44.649	2	22.325	1.230	0.294
Within group	3575.226	197	18.148		
Total	3619.875	199			

4.2.2.2 Relationship between WHOQOL-BREF and Level of physical disabilities analyzed by One-Way ANOVA

The relationship between health related quality of life and level of physical disability, the study finds no statistical significance between the two variables (see details in table 11).

Table 11. WHOQOL-BREF and level of physical disability

Characteristic	Sum of Squares	df	Mean Square	f	Sig.
Physical Health					
Between group	1.026	2	.513	.224	0.800
Within group	451.454	197	2.292		
Total	452.400	199			
Psychological					
Between group	2.472	2	1.236	.408	0.665
Within group	596.248	197	3.027		
Total	598.720	199			
Social Health					
Between group	1.609	2	.804	.348	0.706
Within group	454.786	197	2.309		
Total	456.395	199			
Environmental					
Between group	25.626	2	12.813	2.274	0.106
Within group	1110.249	197	5.636		
Total	1135.875	199			
Overall QOL					
Between group	74.414	2	37.207	2.067	0.129
Within group	3545.461	197	17.997		
Total	3619.875	199			

4.2.2.3 Relationship between WHOQOL-BREF and Years of Disabilities analyzed by One-Way ANOVA

The health related quality of life and years of disability, the study finds no statistical significance between the two variables (see details in table 12).

Table 12. WHOQOL-BREF and Years of disabilities

Characteristic	Sum of Squares	df	Mean Square	f	Sig.
Physical Health					
Between group	18.374	4	4.593	2.063	0.087
Within group	434.106	195	2.226		
Total	452.480	199			
Psychological					
Between group	4.321	4	1.080	.354	0.841
Within group	594.399	195	3.048		
Total	598.720	199			
Social Health					
Between group	.747	4	.187	.080	0.988
Within group	455.648	195	2.337		
Total	456.395	199			
Environmental					
Between group	9.978	4	2.494	.423	0.785
Within group	1125.897	195	5.774		
Total	1135.875	199			
Overall QOL					
Between group	72.323	4	18.081	.994	0.412
Within group	3547.552	195	18.193		
Total	3619.875	199			

4.2.2.4 Relationship between WHOQOL-BREF and Underlying Diseases analyzed by One-Way ANOVA

The health related quality of life and underlying illness, the study finds no statistical significance between the two variables (see details in table 13).

Table 13. WHOQOL-BREF and Underlying Illness

Characteristic	Sum of Squares	df	Mean Square	f	Sig.
Physical Health					
Between group	1.659	1	1.659	.729	0.394
Within group	450.821	198	2.277		
Total	452.480	199			
Psychological					
Between group	1.102	1	1.102	.365	0.546
Within group	597.618	198	3.018		
Total	598.720	199			
Social Health					
Between group	4.182	1	4.182	1.831	0.178
Within group	452.213	198	2.284		
Total	456.395	199			
Environmental					
Between group	2.070	1	2.070	.362	0.548
Within group	1133.805	198	5.726		
Total	1135.875	199			
Overall QOL					
Between group	5.121	1	5.212	.280	.579
Within group	3614.754	198	18.256		
Total	3619.875	199			

4.2.2.5 Relationship between WHOQOL-BREF and Self-dependency analyzed by One-Way ANOVA

The relationship between health related quality of life and self-dependency, the study finds no statistical significance between the two variables (see details in table 14).

Table 14. WHOQOL-BREF and Self-dependency

Characteristic	Sum of Squares	df	Mean Square	f	Sig.
Physical Health					
Between group	9.372	3	3.124	1.382	0.250
Within group	443.108	196	2.261		
Total	452.480	199			
Psychological					
Between group	15.776	3	5.259	1.768	0.155
Within group	582.944	196	2.974		
Total	598.720	199			
Social Health					
Between group	2.726	3	.909	.398	0.758
Within group	453.669	196	2.315		
Total	456.395	199			
Environmental					
Between group	16.050	3	5.350	.936	0.424
Within group	1119.825	196	5.713		
Total	1135.875	199			
Overall QOL					
Between group	100.979	3	33.660	1.875	0.135
Within group	3518.896	196	17.954		
Total	3619.875	199			

4.2.2.5 Relationship between WHOQOL-BREF and Religion analyzed by One-Way ANOVA

The health related quality of life and religion, all the domains are ($p > 0.05$) meaning there is no statistical significance between the two variables (see details in table 15).

Table 15. WHOQOL-BREF and Religion

Characteristic	Sum of Squares	df	Mean Square	f	Sig.
Physical Health					
Between group	7.666	1	7.666	3.412	0.066
Within group	444.814	198	2.247		
Total	452.480	199			
Psychological					
Between group	9.043	1	9.043	3.036	0.083
Within group	589.677	198	2.978		
Total	598.720	199			
Social Health					
Between group	.241	1	.241	.104	0.747
Within group	456.154	198	2.304		
Total	456.395	199			
Environmental					
Between group	.113	1	.113	.020	0.889
Within group	1135.762	198	5.736		
Total	1135.875	199			
Overall QOL					
Between group	20.656	1	20.656	1.136	0.288
Within group	3599.219	198	18.178		
Total	3619.875	199			

4.2.2.5 Relationship between WHOQOL-BREF and Religion Coping analyzed by One-Way ANOVA

The association between health related quality of life and religion coping, all the domains are ($p > 0.05$) meaning there is no statistical significance between the two variables (see details in table 16).

Table 16. WHOQOL-BREF and Religion Cope

Characteristic	Sum of Squares	df	Mean Square	f	Sig.
Physical Health					
Between group	2.983	1	2.983	1.314	0.253
Within group	449.497	198	2.270		
Total	452.480	199			
Psychological					
Between group	.482	1	.482	.160	0.690
Within group	598.238	198	3.021		
Total	598.720	199			
Social Health					
Between group	.008	1	.008	.003	0.953
Within group	456.387	198	2.305		
Total	456.395	199			
Environmental					
Between group	.162	1	.162	.028	0.867
Within group	1135.713	198	5.736		
Total	1135.875	199			
Overall QOL					
Between group	14.678	1	14.678	.806	0.370
Within group	3605.197	198	18.208		
Total	3619.875	199			

4.2.3.1 Relationship between WHOQOL-BREF and accessibility to health services Health Care facility analyzed by One-Way ANOVA

The association between all the five domains of health related quality of life and health care, all domains are ($p > 0.05$) meaning there is no statistical significance between the two variables (see details in table 17).

Table 17. WHOQOL-BREF and Health Care facility

Characteristic	Sum of Squares	df	Mean Square	f	Sig.
Physical Health					
Between group	8.685	2	4.343	1.928	0.148
Within group	443.795	197	2.253		
Total	452.480	199			
Psychological					
Between group	.459	2	.229	.076	0.927
Within group	598.261	197	3.037		
Total	598.720	199			
Social Health					
Between group	.045	2	.023	.010	0.990
Within group	456.350	197	2.316		
Total	456.395	199			
Environmental					
Between group	7.500	2	3.750	.655	0.521
Within group	1128.375	197	5.728		
Total	1135.875	199			
Overall QOL					
Between group	.781	2	.391	.021	0.979
Within group	3619.094	197	18.371		
Total	3619.875	199			

4.2.3.2 Relationship between WHOQOL-BREF and Distance to Health care facility analyzed by One-Way ANOVA

The association between health related quality of life and distance to health care shows all the domains are ($p > 0.05$) meaning there is no statistical significance between the two variables (see details in table 18).

Table 18. WHOQOL-BREF and Distance to Health care facility

Characteristic	Sum of Squares	df	Mean Square	F	Sig.
Physical Health					
Between group	.177	3	.059	.026	0.994
Within group	452.303	196	2.308		
Total	452.480	199			
Psychological					
Between group	15.192	3	5.064	1.701	0.168
Within group	583.528	196	2.977		
Total	598.720	199			
Social Health					
Between group	4.443	3	1.481	.642	0.589
Within group	451.952	196	2.306		
Total	456.395	199			
Environmental					
Between group	12.261	3	4.087	.713	0.545
Within group	1123.614	196	5.733		
Total	1135.875	199			
Overall QOL					
Between group	21.63	3	7.208	.393	0.758
Within group	3598.252	196	18.358		
Total	3619.875	199			

4.2.3.3 Relationship between WHOQOL-BREF and Time taken to reach Health Care facility analyzed by One-Way ANOVA

The association between health related quality of life and time taken to reach health care facility, all the domains are ($p > 0.05$) meaning there is no statistical significance between the two variables (see details in table 19).

Table 19. WHOQOL-BREF and Time taken to reach Health Care facility

Characteristic	Sum of Squares	df	Mean Square	F	Sig.
Physical Health					
Between group	.177	3	.059	.026	0.994
Within group	452.303	196	2.308		
Total	452.480	199			
Psychological					
Between group	15.192	3	5.064	1.701	0.168
Within group	583.528	196	2.977		
Total	598.720	199			
Social Health					
Between group	4.443	3	1.481	.642	0.589
Within group	451.952	196	2.306		
Total	456.395	199			
Environmental					
Between group	12.261	3	4.087	.713	0.545
Within group	1123.614	196	5.733		
Total	1135.875	199			
Overall QOL					
Between group	21.63	3	7.208	.393	0.758
Within group	3598.252	196	18.358		
Total	3619.875	199			

4.2.3.4 Relationship between WHOQOL-BREF and Convenience to reach Health Care facility analyzed by One-Way ANOVA

The association between health related quality of life and convenience to reach health care facility all domains are ($p > 0.05$) meaning there is no statistical significance between the two variables (see details in table 20)

Table 20. WHOQOL-BREF and Convenience to reach Health Care facility

Characteristic	Sum of Squares	df	Mean Square	F	Sig.
Physical Health					
Between group	.014	1	.014	.006	0.938
Within group	452.466	198	2.285		
Total	452.480	199			
Psychological					
Between group	4.309	1	4.309	1.435	0.232
Within group	594.411	198	3.024		
Total	598.720	199			
Social Health					
Between group	2.073	1	2.073	.903	0.343
Within group	454.322	198	2.295		
Total	456.395	199			
Environmental					
Between group	3.700	1	3.700	.647	0.422
Within group	1132.175	198	5.718		
Total	1135.875	199			
Overall QOL					
Between group	33.098	1	33.098	1.827	0.178
Within group	3586.777	198	18.115		
Total	3619.875	199			

4.2.3.5 Relationship between WHOQOL-BREF and Quality of Health Care service analyzed by One-Way ANOVA

The association between health related quality of life and quality of health care service satisfaction, all the domains are ($p > 0.05$) meaning there is no statistical significance between the two variables (see details in table 21)

Table 21. WHOQOL-BREF and Quality of Health Care service

Characteristic	Sum of Squares	df	Mean Square	F	Sig.
Physical Health					
Between group	10.328	4	2.582	1.139	0.340
Within group	442.152	195	2.267		
Total	452.480	199			
Psychological					
Between group	8.389	4	2.097	.693	0.598
Within group	590.331	195	3.027		
Total	598.720	199			
Social Health					
Between group	4.816	4	1.204	.520	0.721
Within group	451.579	195	2.316		
Total	456.395	199			
Environmental					
Between group	42.107	4	10.527	1.877	0.116
Within group	1093.768	195	5.609		
Total	1135.875	199			
Overall QOL					
Between group	47.790	4	11.948	.652	0.626
Within group	3572.085	195	18.318		
Total	3619.875	199			

4.2.3.6 Relationship between WHOQOL-BREF and Disability card analyzed by One-Way ANOVA

The association between health related quality of life and disability card, the environment and overall quality of life domain ($p < 0.05$) showed statistical significance between the two variables (see details in table 22).

Table 22. WHOQOL-BREF and Disability card

Characteristic	Sum of Squares	df	Mean Square	F	Sig.
Physical Health					
Between group	.002	1	.002	.001	0.976
Within group	452.478	198	2.285		
Total	452.480	199			
Psychological					
Between group	1.961	1	1.961	.651	0.421
Within group	596.759	198	3.014		
Total	598.720	199			
Social Health					
Between group	.482	1	.428	.186	0.667
Within group	455.967	198	2.303		
Total	456.395	199			
Environmental					
Between group	42.262	1	42.262	7.652	0.006
Within group	1093.613	198	5.523		
Total	1135.875	199			
Overall QOL					
Between group	107.875	1	107.875	6.082	0.015
Within group	3512.000	198	17.737		
Total	3619.875	199			

4.2.3.6 Relationship between WHOQOL-BREF and Other expenses

The environmental domain shows ($p < 0.05$) meaning there is a statistical significance between the environmental domain and health related quality of life (see details in table 23).

Table 23. WHOQOL-BREF and Other expenses

Characteristic	Sum of Squares	df	Mean Square	F	Sig.
Physical Health					
Between group	.006	1	.006	.003	0.958
Within group	452.474	198	2.285		
Total	452.480	199			
Psychological					
Between group	.019	1	.019	.006	0.936
Within group	598.701	198	3.024		
Total	598.720	199			
Social Health					
Between group	.788	1	.788	.342	0.559
Within group	455.607	198	2.301		
Total	456.395	199			
Environmental					
Between group	28.422	1	28.422	5.082	0.025
Within group	1107.453	198	5.593		
Total	1135.875	199			
Overall QOL					
Between group	51.158	1	51.158	2.838	0.094
Within group	3568.717	198	18.024		
Total	3619.875	199			

4.2.3.6 Relationship between WHOQOL-BREF and Privacy of physical examination analyzed by One-Way ANOVA

The association between health related quality of life and privacy of physical examination shows all the domains are ($p>0.05$) meaning there is no statistical significance between the two variables (see details in table 24).

Table 24. WHOQOL-BREF and Privacy of physical examination

Characteristic	Sum of Squares	df	Mean Square	F	Sig.
Physical Health					
Between group	4.000	1	4.000	1.766	0.185
Within group	448.480	198	2.265		
Total	452.480	199			
Psychological					
Between group	.118	1	.118	.039	0.844
Within group	598.602	198	3.023		
Total	598.720	199			
Social Health					
Between group	1.257	1	1.257	.574	0.460
Within group	455.138	198	2.299		
Total	456.395	199			
Environmental					
Between group	.207	1	.207	1.996	0.850
Within group	1135.668	198	5.736		
Total	1135.875	199			
Overall QOL					
Between group	36.125	1	36.125	.036	0.159
Within group	3583.750	198	18.100		
Total	3619.875	199			

CHAPTER V

DISCUSSION

5.1 Discussion

The research on ‘Assessing the quality of life of persons with physical disabilities in institutionalized centers’, Thailand is a cross sectional study using quantitative data collection technique. The study was completed within one year. Health related quality of life was assessed using the WHOQOL-BREF, study and to find the association between different variables. Relationship between the independent variable and WHOQOL-BREF was used as questionnaire to find the health of quality of life of persons with physical disability. The relationship between the independent variables and HRQOL was analyzed by using the one-way ANOVA and independent t-test.

5.1.1 Health Related Quality Of Life of Persons with Physical disability

Each domain of quality of life includes low, moderate and high score levels, among the 200 respondents with physical disability who completed the questionnaire on WHOQOL-BREF, most respondents had a moderate level of quality of life, 92% level in physical health domain, in 98% psychological health domain, 64.5% in social relationships, 79.5% in environment domain and 85% in overall QOL domain. This was similar to the result in China that PWPDP experience more restrictions on participation in social activities than people without physical disability, which is associated with lower level of well-being, including their relative poorer quality of life QoL. While QoL is influenced by numerous factors, most studies have focused on demographic factors (e.g. age, gender, education, etc.) which do not account for a large proportion of variance in QoL

5.1.2 Socio-demographics characteristics and Health Related Quality of Life

5.1.2.1 Gender and Health Related Quality of Life

In this research the percentage of male and female respondent

was (69.5%) and (30.5%) respectively. The study is similar to the study on 'Health Related Quality of Life among the Thai People with Unilateral Lower Limb Amputation', that shows that 82% of the respondents were male. (Dajpratham 2011) The Independent Samples T-test (unpaired t-test) was used to find the association between Gender and health related quality of life. It was found that females have similar quality of life, all the 5 domains physical Health psychological, social health, environmental and overall QOL showed $p > 0.05$. There was no association between gender and health related quality of life. This result is similar to the study on 'Quality of Life and Related Factors Among People With Spinal Cord Injuries in Tehran, Iran, Such a high rate of daily and personal activities by themselves may be due to Iranian women society culture, since usually, Iranian women not only do their personal activities, but also perform the affairs related to home and the family. Sex emphasizes different aspects of their lives when evaluating their level of QOL and life satisfaction did not show any significant differences between men and women (Moghimian 2015).

5.1.2.2 Age and Health Related Quality of Life

Most respondent is aged between 31-40 years of age (40.5%) and (36%) were lesser than 31 years old. Negative statistics significant relationship found in physical health domain and overall QOL and in psychological, social health, environmental domains found positive statistics significant relationships. This means that as the respondents gets older; their quality of life is mainly affected by their physical health, which means, their mobility is weaker. This results coincides with quality of life (QOL) is negatively affected by age-related changes in function and health. A study found that persons with spinal cord injury who had decreased function rated their lives as less satisfying than persons who had not changed function (Gerhart 1993). A study on adjustment after spinal cord injury has shown that life satisfaction normally increases as one ages with a disability as long as major functional changes do not occur (Krause 1992).

5.1.2.3 Education and Health Related Quality of Life

Most respondents were primary school graduates at (70%) and high school at (35%), similar to the study in China on 'The role of quality of care and attitude towards disability in the relationship between severity of disability and

quality of life which explains that (33.7%) were primary school graduate and (52%) were middle school graduate (Zheng 2014)

The relationship between health related quality of life and education, the study finds statistical significance in environmental (0.017) social ($p=0.07$) and overall QoL (0.06).

5.1.2.4 Employment and Health Related Quality of Life

This study showed that all respondents were employed (100%). All respondents were employed under IL or the school. The study on ‘Health-related quality of life of women with disabilities in relation to their employment status’ unemployed women with disabilities had a lower mean score on all health-related QoL. This study showed 100% employment because respondents were part of an institutionalized center. This might be unlike other studies because most studies have shown a low employment rate for PWD (Zheng 2014).

5.1.3 Degree of physical disability and Health Related Quality of Life

The most common cause of physical disability is accident accounting for (70%) of the respondent and (17.5%) was disabled since birth. In Thailand, physical disabilities accounts for the highest kind of disability at 56.9 %, following, visual disabilities 19.8 %, intellectual/learning 9.9 %, hearing and communication 6.2 %. In Thailand, road traffic accident was the third highest cause of disability (NEP 2014).

The level or the severity of physical disability were mainly leg disability (73.5%) followed by arm and leg disability (13.5%). This result explains that the lesser or more physical disability an individual has, it does not affect their health related quality of life. No statistical significance between health related quality of life and level of physical disability was found. This is similar to the findings on a study of physical disability in China, “which explains that severity of disability, namely the activity limitation and participation restriction has been well recognized as an objective health-related factor that influences the QOL of PWPD. But even with lower degrees of severity of disability, PWPD do not necessarily have higher levels of QoL” (Zheng 2014). (91.5%) of respondents did not have other underlying illness. There was also no relationship between health related quality of life and underlying illness, the study finds no statistical significance between the two variables. This

study is similar to the study in Northeast Thailand which claims that majority of person with physical disability did not have any underlining disease or illness (54.33%). The top three underlining diseases were hypertension (23.59%), DM (18.62%), and cardiovascular disease (7.36%)(Wongkongdech A 2014). From data, the number of years of disability (57.5%) was between 1-10 years. The relationship between health related quality of life and years of disability, the study finds no statistical significance between the two variables. Meaning if the respondent was newly disable or disabled for many years, it did not have any impact on their health related quality of life.

Most respondent (78.5%) were self-dependent on equipment's to help with daily activities. There was no association found between the health related quality of life and self-dependency, the study finds no statistical significance. A study in Northeast regarding the activity of daily living based on Barthel Index, suggested that 37.9% of the PWMDs had some degrees of dependency, which could be the physically, psychologically and financially burdens to the caregivers and other family members(Wongkongdech A 2014).

5.1.4 Religion

In this study majority of the respondent are Buddhist (91.5%) and (8.5%) are Christian. Most respondents (77.5%) felt that their religion or religious practice helps them cope with their disability. A study on physically disabled middle-aged women in Khon Kaen (Northeast) province in Thailand showed a 100% physically disabled Buddhist women respondents, the study explain that respondents are affected by Buddhism, and the beliefs in ghosts and supernatural beings. "This belief is affected by the Buddhist teaching that life is a chain of rebirths where there is a continuous rebirth in a human or animal form, in either gender, depending on deeds or karma of the previous life: What we are now is the result of what we were and have been before' and 'Do good, receive good; do evil, receive evil'". However, this report is on the contrary of this study result. This could be because respondents are more social and knowledgeable and can differentiate their beliefs and understanding in science and religion.

This study claims no association between health related quality of life and religion. All the domains are ($p>0.05$) meaning there is no statistical significance between health related quality of life and religion coping. This study was on the contrary to the study on 'Religion Among Disabled and Nondisabled Persons' which stated that elderly disabled hospitalized veterans religious coping was the key to reducing pain, that religious involvement of either type will have special psychosocial benefits for the disabled (L.Idler 1997)

5.1.5 Accessibility to health services and Health Related Quality of Life

Geographical accessibility

Among the 200 respondents, 143 of them (71.5%) goes to the hospital and (20%) goes to clinics for their healthcare services. About 97 respondents or (48.5%) travel a distance of approximately 5-10 kms to receive their healthcare, (48.5%) responded that it takes them duration of 10-30 minutes to reach their health care facility; for the others (40.5%) responded it takes less than 10 minutes.

This study on 'Access to Health Services in the Northeast of Thailand' the PWDs have overall access to health services at medium level (66.0%), which was generally lower than people without disabilities, who usually had larger proportion for high level of access to health services. The domain which had lowest level was affordability domain, 72.3% at medium level and another 16.2% at the low level, whereas the majority of other domains were at the medium level, and then followed by high level. It could be explained by the fact that many of despite the free health services, they still had to pay for transportation, food etc cost (Wongkongdech A 2014).

Functional accessibility

Due to physical disability (88.5%) of respondent find it difficult to get to their healthcare centers. A large number of respondents (78.5%) find that facilities are not easily accessible for person with disability, (61.5%) are dissatisfied with the services provided. A study in Metropolitan Philadelphia region shows that 30% of the respondents explained that they encountered physical barriers in accessing their doctor's office, equipment, and/or washrooms, 19% indicated that they felt they were receiving inadequate primary healthcare, and 22% felt that their disability is an

obstacle in accessing adequate primary healthcare services(Veltman A 2001). A study of 25 individuals with disability were interviewed in, Southeastern Brazil, about accessibility to health services by persons with disabilities. The study claims that with regard to the difficulties in accessibility to health services, there were reports of delayed service, problems with parking, and lack of ramps, elevators, wheelchairs, doctors and adapted toilets(Castro SS1 2011).

Financial Accessibility

Most respondent (73.5%) uses the social security card scheme (SSS) and the other (26.5%) uses the disability right card (under the UCS). Most respondents (76.4%) do not have to pay any other expenses, hence using the UC. The association between health related quality of life and disability rights, the environment and overall quality of life domain showed statistical significance between the two variables. The environmental domain shows ($p < 0.05$) meaning there is a statistical significance between the environmental domain and health related quality of life. The reason is affordability of health services and transportation are two main reasons why people with disabilities do not receive needed health care in low-income countries, 32-33% of non-disabled people are unable to afford health care compared to 51-53% of people with disabilities (2015)

Cultural Accessibility

Almost all the respondents (98%) believe that cultural accessibility is available, meaning healthcare centers takes privacy (i.e have curtains or separate consultation rooms). All the domains are ($p > 0.05$) meaning there is no statistical significance between health related quality of life and cultural accessibility.

5.2 Conclusion

This study was a cross section study to look at the association between socio-demographic factors, religion, physical disabilities, accessibility to healthcare and health related quality of life in persons with physical disability in residential institutionalized center. It was done with the expectation to provide general understanding on the health related quality of life using WHOQOL-BREF as part of the questionnaire among persons with physical disability.

A moderate level of health related quality of life was shown among the 200 persons with physical disability respondents. The result showed that females living with physical disability had higher quality of life than males. When analyzed by one-way ANOVA, with statistical significance at the level of $p > 0.05$, gender, age, employment, religion, degree of physical disability are factors that did not show significant association with QoL of the study population. Education and financial accessibility showed an association between health related quality of life. To sum up, after the analysis the following conclusions could be made: the QoL of people with physical disabilities is associated mostly with education and financial accessibility.

5.3 Recommendation

A. Recommendations for Program Management

1. The study has shown that it is feasible to use the WHOQOL-BREF questionnaire at residential regions. The instrument provides useful information on the physical, psychological, social, environment and quality of life domain for persons with disability.

B. Recommendations for future research

2. More studies regarding quality of life should be researched to understand the factors that affect PWDs. This study only focused on few residential regions in Thailand; studies on community could also help better understand PWD.
3. Other variables such as living conditions, income, attitude, could be looked at, to better understand the quality of persons with disabilities.
4. Multiple log regression is recommended for statistical analysis

REFERENCES

- (1995). "Quality of Life in ESCAP region."
- (2000-2015). How to Determine Sample Size, Determining Sample Size.
- (2009). pdcn.
- (2012). Working to remove barriers to health care for people with disabilities.
- (2012). National Health Security Office.
- (2014).
- (2014). NCIL. About Independent Living.
- (2015). Disability and Health.
- Anderson, P. (2010).
- BANK., T. W. (2012). Sustaining Health Protection for All.
- Castro SS1, L. F., Lefèvre AM, Cesar CL. (2011). "Accessibility to health services by persons with disabilities." Rev Saude Publica.: 99-105.
- Dajpratham, P. (2011). "Health Related Quality of Life among the Thai People." J Med Assoc Thai 2011: 94 (92): 250-255.
- Dowell, M. I. (2006). " Measuring Health: A Guide to Rating Scales and Questionnaires." Oxford University Press.
- Fedrici, S. (2004). International Encyclopedia of Rehabilitation. WHODAS II: Disability self-evaluation in the ICF conceptual frame.
- Gerhart, K. A., Bergstrom, E., Charlifue, S.W., and Menter, R.R (1993). " Long-term spinal cord injury: Functional changes over time." Archives Phys. Med. Rehab.
- Giancarlo Lucchetti, M. (2011). "Religiousness affects mental health, pain and quality of life in older people in an outpatient rehabilitation setting." J Rehabil Med.
- Henderson, H. (2011). Consultation visit to Nonthaburi Center for Independent Living.
- Howitt, S., Jones, M., & Jusbani, A. (2011). " A cross-sectional study of quality of life in incident stroke survivors in rural northern Tanzania." J Neurol.
- J.F., L. (2003). "A Global Approach to Evaluation of Health Services Utilization: Concepts and Measures." Healthcare Policy.

- Krause, J. S. (1992). "Longitudinal changes in adjustment after spinal cord injury: A 15-year study 73, 558-563." Archives Phys. Med. Rehab: 558-563.
- L.Idler, E. (1997). "Religion among disabled and nondisabled persons I: cross-sectional patterns in health practices, social activities, and well-being." J Gerontol B Psychol.
- Moghimian, M. (2015). "Quality of Life and Related Factors Among People With Spinal Cord Injuries in Tehran, Iran." Archives of Trauma Research 4.3 (2015): e19280. PMC.
- Mont (2007). "Measuring Disability Prevalence." SP DISCUSSION PAPER.
- NEP (2014). National Empowerment of Persons with Disabilities.
- Nosek MA, H. C. (1997). "Breast and cervical cancer screening among women with physical disabilities." Arch Phys Med Rehabil.
- P, R. (2007). "Quality of life perceptions of middle-aged women living with a disability in Muang district, Khon Kaen, Thailand: WHOQOL perspective." J Med Assoc Thai.
- Patrick, D. L. (1990). "MEASUREMENT OF HEALTH STATUS IN THE 1990s." Annual Review of Public Health.
- R N Barker, M. D. (2009). "The relationship between quality of life and disability across the lifespan for people with spinal cord injury."
- Rapley, M. (2003). "Quality of life research a critical introduction." Thousand Article.
- Reeves, D., & Kokoruwe, B (2005). "Communication and Communication Support in Primary Care: A Survey of Deaf Patients." Audiological Medicine: 95-107.
- Ren X, A. B. (1996). "Racial and ethnic disparities in self-assessed health status." Ethn Health.
- Rockville (2005). "The Surgeon General's Call to Action to Improve the Health and Wellness of Persons with Disabilities. In Office of the Surgeon General (US)."
- Sarrachi (2005). "Towards a dynamic definition of health and disease." Med. Health Care Philos: 335-441.
- Sooksawat, A., Janwantanakul, P., Tencomnao, T., & Pensri, P. (2013). "Are religious beliefs and practices of Buddhism associated with disability and salivary

- cortisol in office workers with chronic low back pain? ." BMC Musculoskeletal Disorders.
- Tella, B. A. (2011). " Health-Related Quality of Life of Nigerian Children with Cerebral Palsy. ." Formerly Asia Pacific Disability Rehabilitation Journal.
- Üstün, N. K. (2009). Measuring Health Manual for WHO Disability Assessment Schedule and Disability.
- Veltman A, S. D. (2001). "Perceptions of primary healthcare services among people with physical disabilities." MedGenMed.
- Wanaratwichit C, S. P. (2008). " Access to services and complications experienced by disabled people in Thailand." Asia Pac J Public Health.
- WHO (2014). Disabilities.
- Wongkongdech A, L. W. (2014). "Movement Disability: Situations and Factors Influencing." Kathmandu Univ Med J 168-174.
- World Health Organization. (2014). "Disabilities." from <http://www.who.int/topics/disabilities/en/>.
- Zheng, Q.-L. (2014). "The role of quality of care and attitude towards disability in the relationship between severity of disability and quality of life: findings from a cross-sectional survey among people with physical disability in China." Health Qual Life Outcomes: 12-25.



Appendix A

Questionnaire

Survey Title: "Assessing the quality of life of persons with physical disabilities, in residential institutionalized centers, Thailand".

Survey Objectives: To assess the level of quality of life of persons with physical disability and to examine the association between socio-demographic, degree of physical disability, accessibility to healthcare services, and health-related quality of life, in Thailand by the College of Public Health Sciences Master's degree student, Chulalongkorn University.

Questionnaire Code: [.....] (Code by Researcher)

Date: .../.../... (Code by Researcher)

Information for the respondent:

We wish to know your level of quality of life. Your information will be useful for local health service and action.

Your answer will not be released to anyone and will remain anonymous. Your name will not be written on the questionnaire or be kept in other records. The presentation of this research, result is an overall summary and does not refer to an individual reporting.

There are 5 pages in this questionnaire, which consists of 5 parts:

Part 1	Socio-demographic characteristics of persons with disability	5 questions
Part 2	Degree of physical disability	4 questions
Part 3	Religion	2 questions
Part 4	Accessibility to health care services	10 questions
Part 5	WHOQOL-BREF	26 questions

Thank you for your time and kind assistance.

Appendix B

Thai Version

เลขที่แบบสอบถาม :

วันที่...../...../.....

คำชี้แจง:

แบบสอบถามชุดนี้จัดทำขึ้นเพื่อประเมินคุณภาพชีวิตของผู้พิการทางร่างกายในศูนย์สถาบันที่อยู่อาศัยในประเทศไทยผลการศึกษาที่ได้จากการตอบแบบสอบถามในครั้งนี้ จะถูกนำไปใช้พัฒนาข้อเสนอแนะต่อการสาธารณสุขในชุมชนในการวางแผนในอนาคตต่อไป

ข้อมูลที่เกี่ยวข้องกับท่านจะเก็บเป็นความลับ หากมีการเสนอผลการวิจัยจะเสนอเป็นภาพรวม ข้อมูลใดที่สามารถระบุถึงตัวท่านได้ จะไม่ปรากฏในรายงาน

แบบสอบถามมีทั้งหมด 5 หน้า รวมทั้งหมด 47 คำถาม แบ่งออกเป็น 5 ส่วนดังนี้

ส่วนที่ 1 ข้อมูลทั่วไป	5 คำถาม
ส่วนที่ 2 สาเหตุและความรุนแรงของความพิการทางร่างกาย	4 คำถาม
ส่วนที่ 3 ศาสนา	2 คำถาม
ส่วนที่ 4 การเข้าถึงการบริการดูแลสุขภาพ	10 คำถาม
ส่วนที่ 5 WHOQOL-BREF	26 คำถาม

ขอบพระคุณทุกท่านในการตอบแบบสอบถาม

Appendix C

AF 01-12



คณะกรรมการพิจารณาจริยธรรมการวิจัยในคน กลุ่มสถาบัน ชุคที่ 1 จุฬาลงกรณ์มหาวิทยาลัย
254 อาคารจามจุรี 1 ชั้น 2 ถนนพญาไท เขตปทุมวัน กรุงเทพฯ 10330
โทรศัพท์/โทรสาร: 0-2218-3202 E-mail: eccu@chula.ac.th

COA No. 191/2558

ใบรับรองโครงการวิจัย

โครงการวิจัยที่ 116.1/58 : ประเมินคุณภาพชีวิตของผู้พิการทางร่างกายในศูนย์สถาบันที่อยู่อาศัยในประเทศไทย
ผู้วิจัยหลัก : นางสาวนันทิณี ดุวา
หน่วยงาน : วิทยาลัยวิทยาศาสตร์สาธารณสุข จุฬาลงกรณ์มหาวิทยาลัย

คณะกรรมการพิจารณาจริยธรรมการวิจัยในคน กลุ่มสถาบัน ชุคที่ 1 จุฬาลงกรณ์มหาวิทยาลัย ได้พิจารณา โดยใช้หลัก ของ The International Conference on Harmonization – Good Clinical Practice (ICH-GCP) อนุมัติให้ดำเนินการศึกษาวิจัยเรื่องดังกล่าว ได้

ลงนาม.....
(รองศาสตราจารย์ นายแพทย์ปริดา ทักตนประดิษฐ์)
ประธาน

ลงนาม.....
(ผู้ช่วยศาสตราจารย์ ดร.นันทรี ชัยชนะวงศาโรจน์)
กรรมการและเลขานุการ

วันที่รับรอง : 2 พฤศจิกายน 2558

วันหมดอายุ : 1 พฤศจิกายน 2559

เอกสารที่คณะกรรมการรับรอง

- 1) โครงการวิจัย
- 2) ข้อมูลสำหรับกลุ่มประชากรหรือผู้มีส่วนร่วมในการวิจัยและใบยินยอมของกลุ่มประชากรหรือผู้มีส่วนร่วมในการวิจัย
- 3) ผู้วิจัย
- 4) แบบสอบถาม

เดือนปี

1. ขั้ที่ห้ารับทราบว่าเป็นการคิดจริยธรรม หากดำเนินการเก็บข้อมูลการวิจัยก่อนได้รับการอนุมัติจากคณะกรรมการพิจารณาจริยธรรมการวิจัย
2. หากใบรับรองโครงการวิจัยหมดอายุ การดำเนินการวิจัยต้องยุติ เมื่อต้องการต่ออายุต้องขออนุมัติใหม่ล่วงหน้าไม่ต่ำกว่า 1 เดือน หรือส่งรายงานความก้าวหน้าการวิจัย
3. ต้องดำเนินการวิจัยตามที่ระบุไว้ในโครงการวิจัยอย่างเคร่งครัด
4. ใช้เอกสารข้อมูลสำหรับกลุ่มประชากรหรือผู้มีส่วนร่วมในการวิจัย ใบยินยอมของกลุ่มประชากรหรือผู้มีส่วนร่วมในการวิจัย และเอกสารเชิญเข้าร่วมวิจัย (ถ้ามี) เฉพาะที่ประทับตราคณะกรรมการเท่านั้น
5. หากเกิดเหตุการณ์ไม่พึงประสงค์ร้ายแรงในสถานที่เก็บข้อมูลที่ขออนุมัติจากคณะกรรมการ ต้องรายงานคณะกรรมการภายใน 5 วันทำการ
6. หากมีการเปลี่ยนแปลงการดำเนินการวิจัย ให้ส่งคณะกรรมการพิจารณารับรองก่อนดำเนินการ
7. โครงการวิจัยไม่เกิน 1 ปี ส่งแบบรายงานสิ้นสุดโครงการวิจัย (AF 03-12) และบทคัดย่อผลการวิจัยภายใน 30 วัน เมื่อโครงการวิจัยเสร็จสิ้น สำหรับโครงการวิจัยที่เป็นวิทยานิพนธ์ให้ส่งบทคัดย่อผลการวิจัย ภายใน 30 วัน เมื่อโครงการวิจัยเสร็จสิ้น

Appendix D

Thai Version

คำชี้แจง แบบสัมภาษณ์นี้ต้องการทราบข้อมูลส่วนตัวของผู้ตอบแบบสัมภาษณ์

โปรดใส่เครื่องหมายลงในช่องสี่เหลี่ยม () และเติมคำตอบลงในช่องว่างตามความเป็นจริง

ส่วนที่ 1 ข้อมูลส่วนบุคคล

1. บันทึกเพศของผู้ถูกสัมภาษณ์ตามที่เห็น
 1) หญิง 2) ชาย
2. ผู้ถูกสัมภาษณ์อายุเท่าไรปี
3. ศูนย์สถาบันที่อยู่อาศัยในประเทศไทยอยู่ที่?
 1) IL ชลบุรี 2) IL นนทบุรี 3) IL พุทธมณฑล
 4) IL กรุงเทพฯ 5) IL ปทุมธานี 6) IL นครสวรรค์
 7) IL ขอนแก่น 8) พระมหาไถ่ โรงเรียนอาชีวศึกษาสำหรับคนพิการ
4. ระดับการศึกษา
 1) ไม่ได้รับการศึกษา 2) ประถมศึกษา 3) มัธยมศึกษา
 4) อนุปริญญา 5) ปริญญาตรี 6) ปริญญาโท
 7) ปริญญาเอก 8) อื่น ๆ (ระบุ).....
5. อาชีพ 1) ไม่มีอาชีพ 2) ธุรกิจส่วนตัว 3) ค้าขาย
 4) อื่น ๆ (ระบุ).....

ส่วนที่ 2: ความพิการทางร่างกาย

6. สาเหตุของความพิการของท่านเกิดจากสาเหตุใด?
 1) พิการตั้งแต่กำเนิด 2) พิการจากอุบัติเหตุ
 3) พิการจากความเจ็บป่วย 4) อื่น ๆ (ระบุ).....
7. ระดับของความพิการของท่านอยู่ในระดับใด? (สามารถตอบได้มากกว่า 1 ข้อ)–
 1) แขน ไม่สามารถใช้งานได้สองข้าง
 2) ขา ไม่สามารถใช้งานได้ข้างเดียว
 3) ขา ไม่สามารถใช้งานได้สองข้าง
 4) ทั้งแขนและขาไม่สามารถใช้งานได้

8. ระยะเวลาความพิการของท่านนานเท่าใด _____ ปี

9. ท่านมีโรคประจำตัวอื่นๆ ร่วมด้วยหรือไม่ อย่างไร?

- 1) ไม่มี
- 2) มี ประกอบด้วย
- เมาหวาน
 - ความดันโลหิตสูง
 - ไ้ไขมัน
 - โรคตับ หรือเกี่ยวกับตับ
 - โรคไต หรือเกี่ยวกับไต
 - โรคทางสายตา หรือการมองเห็น
 - โรคทางได้ยิน
 - อื่น ๆ (ระบุ).....

10. ระดับความสามารถในการพึ่งตนเอง?

- 1) สามารถช่วยเหลือตัวเองได้ดี
- 2) สามารถช่วยเหลือตัวเองได้ และมีอุปกรณ์ช่วยเหลือ (ระบุ)
- 3) สามารถช่วยเหลือตัวเองได้บ้าง ต้องมีคนช่วยและมีอุปกรณ์ช่วยเหลือ (ระบุ)
- 4) ไม่สามารถช่วยเหลือตัวเองได้เลย ต้องมีคนช่วยและมีอุปกรณ์ช่วยเหลือ (ระบุ)

ส่วนที่ 3: ศาสนา

12. คุณคิดว่าศาสนาที่คุณนับถือมีส่วนช่วยให้คุณรับมือกับความพิการที่เกิดขึ้นกับคุณหรือไม่?

- 1) มี 2) ไม่มี

ส่วนที่ 4: การเข้าถึงบริการต่างๆ

13. เมื่อท่านเจ็บป่วย ท่านจะเคยเข้ารับบริการหรือการดูแลจากสถานบริการใดบ้าง สามารถตอบได้มากกว่า 1 ข้อ?

- 1) ศูนย์สุขภาพชุมชน
- 2) อำเภอศูนย์สุขภาพ
- 3) โรงพยาบาล
- 4) คลินิก
- 5) ร้านขายยา
- 6) อื่นๆ (ระบุ).....

14. เมื่อท่านเจ็บป่วย ท่านต้องเดินทางจากบ้านไปยังสถานบริการสุขภาพเป็นระยะทางเท่าใด?

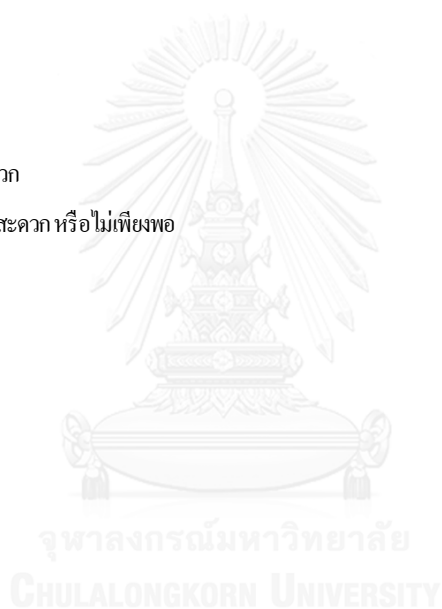
- 1) น้อยกว่า 5 กิโลเมตร
- 2) 5-10 กิโลเมตร
- 3) มากกว่า 10 กิโลเมตร

15. ท่านใช้เวลาเดินทางไปยังสถานที่ให้บริการด้านสุขภาพจากบ้านเท่าใด?

- 1) น้อยกว่า 10 นาที
- 2) 10-30 นาที
- 3) มากกว่า 30 นาที
- 4) ระบุระยะเวลาโดยประมาณ นาที/ชั่วโมง

16. สถานพยาบาลมีสิ่งอำนวยความสะดวกสำหรับคนพิการหรือที่มารับบริการด้านสุขภาพเช่น ราวจับขึ้นและลง ทางลาดหรือห้องน้ำ ป้ายสัญลักษณ์?

- 1) ไม่มี
- 2) มี
 - ใช้งานได้สะดวก
 - ใช้งานได้ไม่สะดวก หรือไม่เพียงพอ



17. คุณพอใจมากน้อยแค่ไหนกับเวลาที่รอรับบริการที่ศูนย์บริการด้านสุขภาพ?

- 2) พอใจ
 3) ไม่พอใจ
 4) ไม่พอใจอย่างยิ่ง

20. เมื่อท่านเข้ารับการรักษาของรัฐ ท่านมีค่าใช้จ่ายอื่น ๆ นอกเหนือจากสิทธิที่ท่านได้รับหรือไม่

- 1) มี
 ค่าพบแพทย์เฉพาะทาง
 ค่าการให้การรักษา
 ค่าอุปกรณ์ในการรักษา
 ค่ายานอกเหนือบัญชีรายการยา
 2) ไม่มี

20. ท่านได้รับการเคารพ หรือปกป้องสิทธิผู้ป่วยจากเจ้าหน้าที่ของโรงพยาบาล หรือสถานพยาบาลอย่างไร? (ป้องกันความเป็นส่วนตัว ห้องพักที่เหมาะสมหรือมาน)

- 1) มี 2) ไม่มี

โปรดใส่เครื่องหมาย (/) ลงในช่องสี่เหลี่ยมเพียงตัวเลือกเดียวหรือเติมคำตอบลงในช่องว่างตามความเป็นจริง

ส่วนที่ 5 แบบสัมภาษณ์ข้อมูลคุณภาพชีวิต- WHOBREF

คำถามต่อไปนี้จะถามว่าคุณรู้สึกอย่างไรกับคุณภาพชีวิต สุขภาพหรืออื่นๆ ในชีวิตของคุณ ดิฉัน/กระผมจะอ่านแต่ละคำถาม พร้อมกับคำตอบที่เป็นตัวเลือกให้คุณฟัง โปรดเลือกคำตอบที่คุณพบว่าเหมาะสมที่สุด ถ้าคุณไม่แน่ใจเกี่ยวกับคำตอบในแต่ละคำถาม คำตอบแรกที่คุณคิดจะเป็นคำตอบที่ดีที่สุด โปรดระลึกถึง มาตรฐาน ความหวัง ความยินดี และความสนใจของคุณเอง เรา จะถามถึงความคิดที่คุณมีเกี่ยวกับชีวิตของคุณเองในช่วง 4 สัปดาห์ที่ผ่านมา

	ไม่ดีอย่างมาก (1)	ไม่ดี (2)	ปานกลาง (3)	ดี (4)	ดีมาก (5)
1. คุณให้คะแนนคุณภาพชีวิตของคุณอย่างไรบ้าง					
	ไม่พอใจมาก (1)	ไม่พอใจ (2)	เฉยๆ (3)	พอใจ (4)	พอใจมาก (5)
2. คุณพอใจเกี่ยวกับสุขภาพของคุณอย่างไร?					

คำถามต่อไปนี้จะถามเกี่ยวกับประสบการณ์ของคุณ ในบางสิ่งบางอย่างว่ามีอย่างน้อยแค่ไหนในช่วง 4 สัปดาห์ที่ผ่านมา

	ไม่เลย (5)	เล็กน้อย (4)	ปานกลาง (3)	มาก (2)	มากที่สุด (1)
3. คุณมีความรู้สึกเจ็บปวดทางร่างกายจนไม่สามารถที่จะทำในสิ่งที่คุณอยากทำได้					
4. คุณต้องการบำบัดทางการแพทย์อย่างน้อยแค่ไหน เพื่อให้สามารถปฏิบัติภารกิจประจำวันได้					
5. คุณมีความสุขในการดำเนินชีวิตอย่างน้อยแค่ไหน					
6. คุณรู้สึกว่าชีวิตของคุณมีความหมายอย่างน้อยแค่ไหน					
7. คุณสามารถที่จะมีสมาธิได้ดีเพียงใด					
8. คุณรู้สึกว่าชีวิตประจำวันของคุณปลอดภัยอย่างน้อยแค่ไหน					
9. คุณรู้สึกว่าสิ่งแวดล้อมของคุณมีสุขอนามัย					

คำถามต่อไปนี้จะถามเกี่ยวกับสิ่งที่คุณได้ประสบ หรือสามารถจำบางสิ่งบางอย่างได้สมบูรณ์ครบถ้วนอย่างไร ในช่วง 4 สัปดาห์ที่ผ่านมา

	ไม่เลย (1)	เล็กน้อย (2)	ปานกลาง (3)	ส่วนใหญ่ (4)	ได้สมบูรณ์ (5)
10. คุณมีพลังงานเพียงพอในการดำเนินชีวิตประจำวันหรือไม่					
11. คุณสามารถที่จะยอมรับรูปร่างหน้าตาของตนเองหรือไม่					
12. คุณมีเงินเพียงพอที่จะสนองความต้องการของคุณได้เองหรือไม่					
13. คุณได้รับข้อมูลที่คุณต้องการในการ.....					
14. คุณมีโอกาสที่จะทำกิจกรรมยามว่างอย่างน้อยแค่ไหน					

	ไม่ดีมาก (1)	ไม่ดี (2)	ปานกลาง (3)	ดี (4)	ดีมาก (5)
15. คุณสามารถที่จะไปไหนมาไหนได้ที่เพียงใด					
16. คุณพอใจกับการนอนหลับของคุณอย่างไร					
17. คุณพอใจกับความสามารถของคุณในการดำเนินกิจกรรมในชีวิตประจำวันอย่างไร					
18. คุณพอใจกับความสามารถในการทำงานของคุณอย่างไรบ้าง					
19. คุณพอใจกับตัวของตนเองอย่างไรบ้าง					
20. คุณพอใจกับความสัมพันธ์ส่วนตัวของคุณอย่างไรบ้าง					
21. คุณพอใจกับชีวิตทางเพศของคุณอย่างไรบ้าง					
22. คุณพอใจเกี่ยวกับการสนับสนุนที่คุณได้รับ					
23. คุณพอใจเกี่ยวกับสภาพที่อยู่อาศัยของคุณ					
24. คุณพอใจเกี่ยวกับการที่คุณสามารถเข้าถึงการบริการทางด้านสุขภาพอย่างไรบ้าง					
25. คุณพอใจเกี่ยวกับการเดินทางของคุณอย่างไร					

คำถามต่อไปนี้จะกล่าวถึงความรู้สึก หรือประสบการณ์ที่คุณได้รับเกี่ยวกับบางสิ่งบางอย่างที่เกิดขึ้นบ่อยๆ ในช่วง 4 สัปดาห์ที่ผ่านมา

	ไม่เคย เลย (5)	น้อยครั้ง (4)	ค่อนข้าง บ่อย (3)	บ่อยมาก (2)	ตลอดเวลา (1)
26. คุณมีความรู้สึกในด้านลบ เช่นความรู้สึกเศร้า ผิดหวัง วิตกกังวล หดหู่ใจ บ่อยครั้ง					

Appendix E

English Version

Questionnaire on “Assessing the quality of life of persons with physical disabilities in residential institutionalize centers, Thailand”

Part 1: Socio demographic

Instruction: The following questions are about your demographic information. Please mark X in the Please also write down in the blank space where provided.

1.) Gender

- 1) Male 2) Female

2.) Your age..... Years

3.) Education

- 1) No Education 2) Primary Education
 3) Secondary Education 4) Bachelor Degree
 5) Master Degree 6) Doctoral

4.) Occupation

- 1) Student 2) Self Employed
 3) Part time 4) Full time
 5) Not working
 6) Others (please specify).....

5.) Name the Residential Institutionalized Centers you are with?

- 1) IL Chonburi 2) IL Nonthaburi
 3) IL Phuttamonthon 4) IL Bangkok
 5) IL Pathumthani 6) IL Nakon Sawan
 7) IL Khon Kaen 8) The Redemptorist Foundation for People
 with Disabilities-RFPD

Part 2: Religion

6.) What religion do you follow?

1) Buddhist

2) Christian

3) Islam

4) others (Specify).....

7.) Does your religion or religious practice help you cope with disability?

1) Yes

2) No

Part 3: Physical disability

8.) Causes of disabilities

1) Since birth

2) Accident

3) Illness

9.) Level of disabilities

1) Arm/arms disabilities

2) Leg/legs disabilities

3) Arms and Legs disabilities

10.) How many years have you been living with disability? _____ (years)

11.) Do you have any underlying illness?

1) Yes

2) No

12.) How would you rate your Level of self-dependency?

1) Self-Dependent

2) Self-Dependent with aid

3) Self-Dependent with aid and care taker

4) Not Self-Dependent at all

Accessibility to health care services

Geographical accessibility

13) When you get ill, where do you often go to?

- 1) Community health center
- 2) District health center
- 3) Hospital
- 4) Private clinic
- 5) Drug store
- 6) Other

14.) Approximately how far is it from your home to the health center you often visit?

- | | |
|---|--|
| <input type="checkbox"/> 1) Less than < 5kilometers
kilometers | <input type="checkbox"/> 2) 5-10
kilometers |
| <input type="checkbox"/> 3) >10 kilometers | <input type="checkbox"/> 4) Others |

15.) Approximately how long does it take to reach the health center from your home?

- | | |
|---|---|
| <input type="checkbox"/> 1) <10 minutes | <input type="checkbox"/> 2) 10-30 minutes |
| <input type="checkbox"/> 3) >30 minutes | <input type="checkbox"/> 4) others |

16.) Do you have any difficulty at all with the roads getting to your health center?

- | | |
|----------------------------------|--------------------------------------|
| <input type="checkbox"/> 1) Easy | <input type="checkbox"/> 2) Not easy |
|----------------------------------|--------------------------------------|

Functional Accessibility

17.) Is the physician's available time convenient for you?

- | | |
|--------------------------------|---------------------------------|
| <input type="checkbox"/> 1) No | <input type="checkbox"/> 2) Yes |
|--------------------------------|---------------------------------|

18.) How satisfied are you with the quality of services you get at the health center?

- | | |
|--|---|
| <input type="checkbox"/> 1) Strongly Satisfied | <input type="checkbox"/> 2) Satisfied |
| <input type="checkbox"/> 3) Dissatisfied | <input type="checkbox"/> 4) Strongly Dissatisfied |

Financial Accessibility

19.) Do you have disability card?

1) Yes

2) No

20.) If yes, are you charged any money for medicines and consultation?

1) Yes

2) No

Cultural Accessibility

21). Do you get privacy while getting a physical examination?

1) Yes

2) No

Part 5:WHO BREF

The following questions ask how you feel about your quality of life, health, or other areas of your life. I will read out each question to you, along with the response options. **Please choose the answer that appears most appropriate.** If you are unsure about which response to give to a question, the first response you think of is often the best one.

Please keep in mind your standards, hopes, pleasures and concerns. We ask that you think about your life **in the last four weeks.**

		Very poor	Poor	Neither poor nor good	Good	Very good
1.	How would you rate your quality of life?	1	2	3	4	5

		Very dissatisfied	Dissatisfied	Neither satisfied nor dissatisfied	Satisfied	Very satisfied
2.	How satisfied are you with your health?	1	2	3	4	5

The following questions ask about **how much** you have experienced certain things in the last four weeks.

		Not at all	A little	A moderate amount	Very much	An extreme amount
3.	To what extent do you feel that physical pain prevents you from doing what you need to do?	5	4	3	2	1
4.	How much do you need any medical treatment to function in your daily life?	5	4	3	2	1
5.	How much do you enjoy life?	1	2	3	4	5
6.	To what extent do you feel your life to be meaningful?	1	2	3	4	5

		Not at all	A little	A moderate amount	Very much	Extremely
7.	How well are you able to concentrate?	1	2	3	4	5
8.	How safe do you feel in your daily life?	1	2	3	4	5
9.	How healthy is your physical environment?	1	2	3	4	5

The following questions ask about how completely you experience or were able to do certain things in the last four weeks.

		Not at all	A little	Moderately	Mostly	Completely
10.	Do you have enough energy for everyday life?	1	2	3	4	5
11.	Are you able to accept your bodily appearance?	1	2	3	4	5
12.	Have you enough money to meet your needs?	1	2	3	4	5
13.	How available to you is the information that you need in your day-to-day life?	1	2	3	4	5
14.	To what extent do you have the opportunity for leisure activities?	1	2	3	4	5

		Very poor	Poor	Neither poor nor good	Good	Very good
15.	How well are you able to get around?	1	2	3	4	5

		Very dissatisfied	Dissati sfied	Neither satisfied nor dissatisfied	Satisfied	Very satisfie d
16.	How satisfied are you with your sleep?	1	2	3	4	5
17.	How satisfied are you with your ability to perform your daily living activities?	1	2	3	4	5
18.	How satisfied are you with your capacity for work?	1	2	3	4	5
19.	How satisfied are you with yourself?	1	2	3	4	5

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