การเข้าถึงบริการด้านสุขภาพและคุณภาพชีวิตเกี่ยวกับสุขภาพของแรงงานผู้อพยพชาวพม่าวัยทำงานที่ตำบลมหาชัย จังหวัดสมุทรสาคร ประเทศไทย

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วิทยานิพนธ์นี้เป็นส่วนหนึ่งของการศึกษาตามหลักสูตรปริญญาสาธารณสุขศาสตรมหาบัณฑิต
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ปีการศึกษา 2551

NATURE OF ACCESSIBILITY TO HEALTH CARE SERVICES AND HEALTH-RELATED QUALITY OF LIFE AMONG ADULT MYANMAR MIGRANT WORKERS IN MAHACHAI SUB-DISTRICT, SAMUT SAKHON PROVINCE, THAILAND

Mr. Tun Linn Thein

A Thesis Submitted in Partial Fulfillment of the Requirements

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Thesis Title	NATURE OF ACCESSIBILITY TO HEALTH CARE SERVICES AND HEALTH-RELATED QUALITY OF LIFE AMONG ADULT MYANMAR MIGRANT WORKERS IN MAHACHAI SUB-DISTRICT, SAMUT SAKHON PROVINCE, THAILAND
By	Mr. Tun Linn Thein
Field of Study	Health Systems Development
Advisor	Prathurng Hongsranagon, Ph.D.

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

..... Dean of the College of Public Health Sciences

(Professor Surasak Taneepanichskul, M.D.)

THESIS COMMITTEE

..... Chairperson

(Associate Professor Sathirakorn Pongpanich, Ph.D.)

..... Advisor

(Prathurng Hongsranagon, Ph.D.)

..... External Examiner

(Wongwat Liuluck, M.D.)

ทุน ลิน เคน: การเข้าถึงบริการด้านสุขภาพและคุณภาพชีวิตเกี่ยวกับสุขภาพของแรงงานผู้อพยพชาวพม่าวัยทำงานที่ตำบลมหาชัย จังหวัดสมุทรสาคร ประเทศไทย. (NATURE OF ACCESSIBILITY TO HEALTH CARE SERVICES AND HEALTH-RELATED QUALITY OF LIFE AMONG ADULT MYANMAR MIGRANT WORKERS IN MAHACHAI SUB-DISTRICT, SAMUT SAKHON PROVINCE, THAILAND) อาจารย์ที่ปรึกษาวิทยานิพนธ์หลัก: อ. ดร.ประเทือง หงสรานากร, 105 หน้า.

วัตถุประสงค์ของการศึกษาครั้งนี้เพื่อประเมินคุณภาพชีวิตด้านสุขภาพของแรงงานอพยพชาวพม่าวัยทำงาน (อายุระหว่าง 18-59 ปี) ที่ตำบลมหาชัย จังหวัดสมุทรสาคร ประเทศไทย การศึกษา นี้เป็นการศึกษาภาคตัดขวาง โดยใช้การสุ่มตัวอย่างแบบ Multi-staged sampling กับกลุ่มตัวอย่างจำนวน 400 ราย ด้วยการวิจัยเชิงปริมาณ และการวิจัยเชิงคุณภาพกับกลุ่มตัวอย่างที่เป็นผู้ให้บริการด้านสุขภาพ เก็บข้อมูลระหว่างต้นเดือนกุมภาพันธ์ พ.ศ. 2552 สำหรับการเก็บข้อมูลเชิงปริมาณนั้น เครื่องมือที่ใช้คือแบบสัมภาษณ์ที่สร้างขึ้นและได้รับการทดลองใช้แล้วที่ประยุกต์จาก WHOQOL-BREF ขณะที่การวิจัยเชิงคุณภาพใช้การสัมภาษณ์เชิงลึก ซึ่งต่างได้ผ่านการพิจารณาจริยธรรมหมายเลข COA no. 108/2009 ลงวันที่ 28 มกราคม พ.ศ. 2552 การวิเคราะห์ข้อมูลใช้สถิติเชิงบรรยาย (ค่าความถี่ ร้อยละ ค่าเฉลี่ย ส่วนเบี่ยงเบนมาตรฐาน ค่าพิสัย และค่ามัธยฐาน) และสถิติเชิงอ้างอิง (unpaired t–test และ one–way ANOVA) เพื่อตรวจสอบความสัมพันธ์ระหว่างตัวแปรอิสระและตัวแปรตาม สำหรับข้อมูลเชิงคุณภาพ ใช้การเรียงลำดับ การให้รหัส การรวบรวม และการสรุปประเด็น

ผลการศึกษาพบว่า เพียงร้อยละ 2.75 ของกลุ่มตัวอย่างมีระดับคุณภาพชีวิตด้านสุขภาพที่สูง ส่วนกลุ่มตัวอย่างที่เหลือมีในระดับปานกลางและระดับต่ำ (ร้อยละ 94.0 และร้อยละ 3.25 ตามลำดับ) ข้อมูลทางประชากรพบว่า กลุ่มตัวอย่างที่สมรสแล้ว มีสมาชิกครอบครัวในประเทศไทยมากกว่า 2 คน อาศัยในประเทศไทยมา 8 ปีหรือมากกว่า สามารถพูดไทยได้คล่อง ไม่ได้รับการศึกษา มีรายได้สูง ประกอบอาชีพเป็นคนงานในโรงงานอุตสาหกรรมหรือภาคการเกษตร ไม่มีประวัติการเจ็บป่วยตลอดสี่สัปดาห์ที่ผ่านมา และเป็นผู้ที่สามารถเข้าถึงบริการด้านสุขภาพและได้รับการรักษาเมื่อป่วย จะมีคุณภาพชีวิตด้านสุขภาพระดับสูงกว่ากลุ่มตัวอย่างรายอื่นๆ สำหรับสภาพการทำงานและการอยู่อาศัยพบว่า กลุ่มตัวอย่างที่อาศัยในที่เช่ามีใบอนุญาตทำงาน ทำงานในตำแหน่งปัจจุบันมานาน 4 ปีหรือมากกว่า และเป็นผู้ที่มีความพึงพอใจในสภาพการทำงาน จะมีคุณภาพชีวิตด้านสุขภาพระดับสูง สำหรับการเข้าถึงบริการด้านสุขภาพนั้นพบว่า การรับรู้เรื่องความยากลำบากในการไปยังสถานพยาบาล ความหนาแน่นของสถานพยาบาล และการมีบัตรประกันภัยสุขภาพ มีความสัมพันธ์กับคุณภาพชีวิตด้านสุขภาพผลการศึกษาทั้งหมดระบุว่า แรงงานอพยพอยู่ในสภาวะที่เลือกได้อย่างยากลำบากขณะที่ แสวงหาคุณภาพชีวิตที่ดีกว่าเดิม

การศึกษาในอนาคตควรคำนึงถึงกลุ่มย่อยหลากหลายกลุ่มในหมู่แรงงานอพยพชาวพม่าและแรงงานคนไทยเอง เพื่อเปรียบเทียบคุณภาพชีวิตของกลุ่มต่างๆ เพื่อให้ได้มาซึ่งหลักฐานเชิงประจักษ์ที่มากขึ้น ตลอดจนนโยบายสาธารณะเพื่อการปรับปรุงการเข้าถึงบริการรักษาพยาบาลและคุณภาพชีวิตที่สูงขึ้น เพื่อบทสรุปที่ดีสำหรับทั้งฝ่ายแรงงานอพยพและชาวไทยผู้เป็นเจ้าบ้าน

สาขาวิชา การพัฒนาระบบสาธารณสุข ลายมือชื่อนิสิต .....

ปีการศึกษา 2551 ลายมือ อ.ที่ปรึกษาวิทยานิพนธ์หลัก .....

5179113953 : MAJOR HEALTH SYSTEMS DEVELOPMENT
KEYWORDS : ADULT MYANMAR MIGRANT WORKERS/ MAHACHAI SUB-DISTRICT/ SAMUT SAKHON/ THAILAND/ ACCESS TO HEALTH CARE SERVICES/ HEALTH-RELATED QUALITY OF LIFE

TUN LINN THEIN: NATURE OF ACCESSIBILITY TO HEALTH CARE SERVICES AND HEALTH-RELATED QUALITY OF LIFE AMONG ADULT MYANMAR MIGRANT WORKERS IN MAHACHAI SUB-DISTRICT, SAMUT SAKHON PROVINCE, THAILAND.
ADVISOR: PRATHURNG HONGSRANAGON, PH.D., 105 pp.

The objective of this research was to assess the health-related quality of life among adult Myanmar migrant workers (age 18-59 years) in Mahachai Sub-district, Samut Sakhon Province, Thailand. It was a cross-sectional study. This research utilized the multi-staged sampling with 400 respondents for quantitative research, and two health care service providers for qualitative research. The data was collected in early February 2009. For quantitative study, the instrument used in this study was a constructed and pre-tested face-to-face interview adapted from WHOQOL-BREF, and for qualitative study, in-depth interview guidelines passing ethical review COA no. 108/2009 issued on 28 January 2009. Data was analyzed by applying descriptive statistics (frequency, percentage, mean, standard deviation, range and median) to describe the data, and inferential statistics (unpaired t–test and one–way ANOVA) to examine the relationships between independent and dependent variables. For qualitative data, ordering, coding, summarizing and drawing conclusion were done.

The results revealed that only 2.75% of the respondents had high level of health-related quality of life. The rest of the respondents reported that their health-related quality of life was moderate and low, 94.0% moderate level, followed by 3.25% low level of quality of life. For socio-demographic characteristics respondents who were married, having more than two family members living in Thailand, had stayed in Thailand more than or equal to eight years, could speak Thai language fluently, no education status, high income, manufacture or agriculture workers, no history of sickness within last four weeks, and having access to health care services and getting treatment when sick, were discovered to have higher mean score of quality of life than others. For living and working conditions, respondents who lived in a rent place, had work permit, length of current job 4 years or above and who were satisfied with working conditions had significantly higher health-related quality of life. For accessibility to health care services, perception of being difficult to go to the health facility, crowdedness of the health facility and having health insurance card were found to have associated with health-related quality of life.

Overall findings indicated that the migrant workers were on the horned dilemma while searching for better quality of life. Future studies should consider many subgroups within Myanmar migrant workers as well as Thai workers to be able to compare the quality of life to provide stronger evidences. Finally, policies to improve access to health care services and higher quality of life in order to create a win-win situation for both migrant workers and host Thai nationals are recommended.

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

Academic Year: .....2008..... Advisor's Signature: .....

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LIST OF ABBREVIATIONS

GIT	Gastro-Intestinal Tract
HIV	Human Immunodeficiency Virus
LRTI	Lower Respiratory Tract Infection
MCH	Maternal and Child Health
MSD	Musculo-Skeletal Disorders
NGO	Non Government Organization
QoL	Quality of Life
SF	Short Form
TB	Tuberculosis
URTI	Upper Respiratory Tract Infection
UTI	Urinary Tract Infection
WHO	World Health Organization
WHOQoL	World Health Organization' s Quality of Life
WHOQOL-BREF	World Health Organization' s Quality of Life (short form)

CHAPTER I

INTRODUCTION

1.1 Background and Rationale

Throughout human history, migration has been a fact of life. The reasons that give rise to migration are varied and often complex (Amnesty International, 2006). At the present time, the world is rapidly changing by globalization. Transportation and movement of goods are rapid and travel between countries has become cheaper and easier (Nilvarangkul, Rungreankulkij, & Wongprom, 2006). Workers move to find better employment opportunities and working conditions. While wage differentials are an important incentive, access to higher levels of health and education services, more personal security and generally better quality of life can also be important elements affecting the decision to work abroad (International Organization for Migration, 2008).

Approximate 190 sovereign states of the world are now serving as either points of origin, transit or destination for migrants; often all three at once. In 2004, the UN's official estimate remains at 175 million migrants globally. Migration flows have shifted in recent years with the changing poles of attraction for labour migration; for example more Asians are finding job opportunities within Asia itself (International Organization for Migration, 2005).

It is known amongst neighboring countries that Thailand is considered a popular destination country for migrants, especially for migrants from her bordering countries. In 2004, there were 1,161,013 migrants registered in Thailand (Khruemanee, 2007). Most migrant workers come from Myanmar. In 2003, according

to the registration numbers, 85.8% of migrating workers were from Myanmar, 7.4% were from Lao PDR, and 6.8% were from Cambodia (Huguet & Punpuing, 2005).

Approximate 96.9 percent of immigrant workers who work in Thailand have poor daily living. They are stressful and anxious due to their life difficulty (Tutchananusorn, 2000). They work in unsafe environments, doing hard-risky-dirty work, having long hours at workplace, being in unhealthy surroundings, are unfairly paid and are also inequitably treated. These factors cause both physical and mental health problems to them (Kaekprayoon, 2003). Immigrant workers work in the three awful environments including highest risk, highest demanding work and the dirtiest. In addition, they have to work hard with unfair pay (Archavanitkul, 2003).

In particular, most migrant workers are housed in accommodations provided by their respective employers. These living quarters often expose migrants to communicable diseases caused by crowded dormitories in which factory workers sleep are poorly ventilated. Since migrants cannot move freely, due to lack of free time and sometimes by the regulation for migrants, these situations might have an effect on their health (Asian Migrant Centre, 2005).

Generally, migrant workers are not only exposed to poor working and living conditions, but they also have limited access to health care services for a number of political, administrative and cultural reasons. Health is recognized as a fundamental right of all, and migrants are no exception. Thailand can be considered as a hub for migrants from her neighbours, Burma, Cambodia and Laos, whose people are in search for a better quality of life. In 2001, the Thai government instituted a major expansion of labor migration. A cabinet decision that year permitted employment of foreigners in all industries and job including an access to the “30 baht universal health

system" in Thailand (Huguet & Punpuing, 2005). The registered migrants are allowed to access only a designated hospital or health care service which sometimes can discourage the migrants to travel for these services. Many reports suggest that access to services for which the migrant workers have paid such as healthcare is uneven, because migrants may not know their entitlements and may not speak the language of healthcare providers (Martin, 2007). Unregistered migrants have been found with very negligible access to health care services. All migrant workers regardless of legal status are entitled to have their human rights and they should have access to emergency medical care (Khruemanee, 2007).

Samut Sakhon province is among the biggest seafood processing industrial areas in Thailand. Samut Sakhon also houses the biggest fish and shrimp markets in the country. It is among the top four coastal provinces in Thailand attracting migrant workers, both Thai and non-Thai, to substitute for local labor in the fishing sector. The combined migrant population is equal to the number of local natives of Samut Sakhon, which has permanent population of approximately 450,000. Based on the registration of migrants in 2004, there were 103,426 migrants registered in the province. Furthermore, there are an unknown number of migrant workers who do not register in 2004 but the local authorities estimate that there were no fewer than 200,222 foreign migrants residing in the province in 2004 (Arnold, 2008).

Quality of life (or QoL for short) is a broad concept which can be defined in many different ways. World Health Organization (WHO) defines QoL (or health-related quality of life) as "individuals' 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" (World Health Organization, 1993).

There are still important populations whose quality of life is rarely assessed, for example, people living in highly stressful situations, such as migrants and refugees.

Ren and Amick, 1996 stated that self-reports of health depends on cultural factors, ethnicity and access to health care. (Ren & Amick, 1996) In addition, WHO 2008 stated improvement of the health and quality of life is a crucial constituent for the new public health and health promotion (World Health Organization, 2008b).

In this study, nature of accessibility to health care services was focused on four concepts of accessibility as defined by WHO 1978, namely geographical accessibility, financial accessibility, cultural accessibility and functional accessibility. Aspects of health-related quality of life were measured by WHOQOL-BREF.

1.2 Research questions

(1) What is the nature of accessibility to health services among adult Myanmar migrant workers in Mahachai Sub-district, Samut Sakhon Province, Thailand?

(2) What is the health-related quality of life among adult Myanmar migrant workers in Mahachai Sub-district, Samut Sakhon Province, Thailand?

(3) What are the socio-demographic characteristics of adult Myanmar migrant workers in Mahachai Sub-district, Samut Sakhon Province, Thailand?

(4) What are the living conditions of adult Myanmar migrant workers in Mahachai Sub-district, Samut Sakhon Province, Thailand?

(5) What are the working conditions of adult Myanmar migrant workers in Mahachai Sub-district, Samut Sakhon Province, Thailand?

(6) What are the relationships between accessibility to health services, living conditions, working conditions and health-related quality of life among adult Myanmar migrant workers in Mahachai Sub-district, Samut Sakhon Province, Thailand?

1.3 Objectives

(1) To assess the health-related quality of life among adult Myanmar migrant workers in Mahachai Sub-district, Samut Sakhon Province, Thailand

(2) To assess the nature of accessibility to health services among adult Myanmar migrant workers in Mahachai Sub-district, Samut Sakhon Province, Thailand

(3) To describe the socio-demographic characteristics of adult Myanmar migrant workers in Mahachai Sub-district, Samut Sakhon Province, Thailand

(4) To describe the living conditions of adult Myanmar migrant workers in Mahachai Sub-district, Samut Sakhon Province, Thailand

(5) To describe the working conditions of adult Myanmar migrant workers in Mahachai Sub-district, Samut Sakhon Province, Thailand

(6) To determine relationships between accessibility to health care services, living conditions, working conditions and health-related quality of life among adult Myanmar migrant workers in Mahachai Sub-district, Samut Sakhon Province, Thailand

1.4 Conceptual Framework

Conceptual Framework

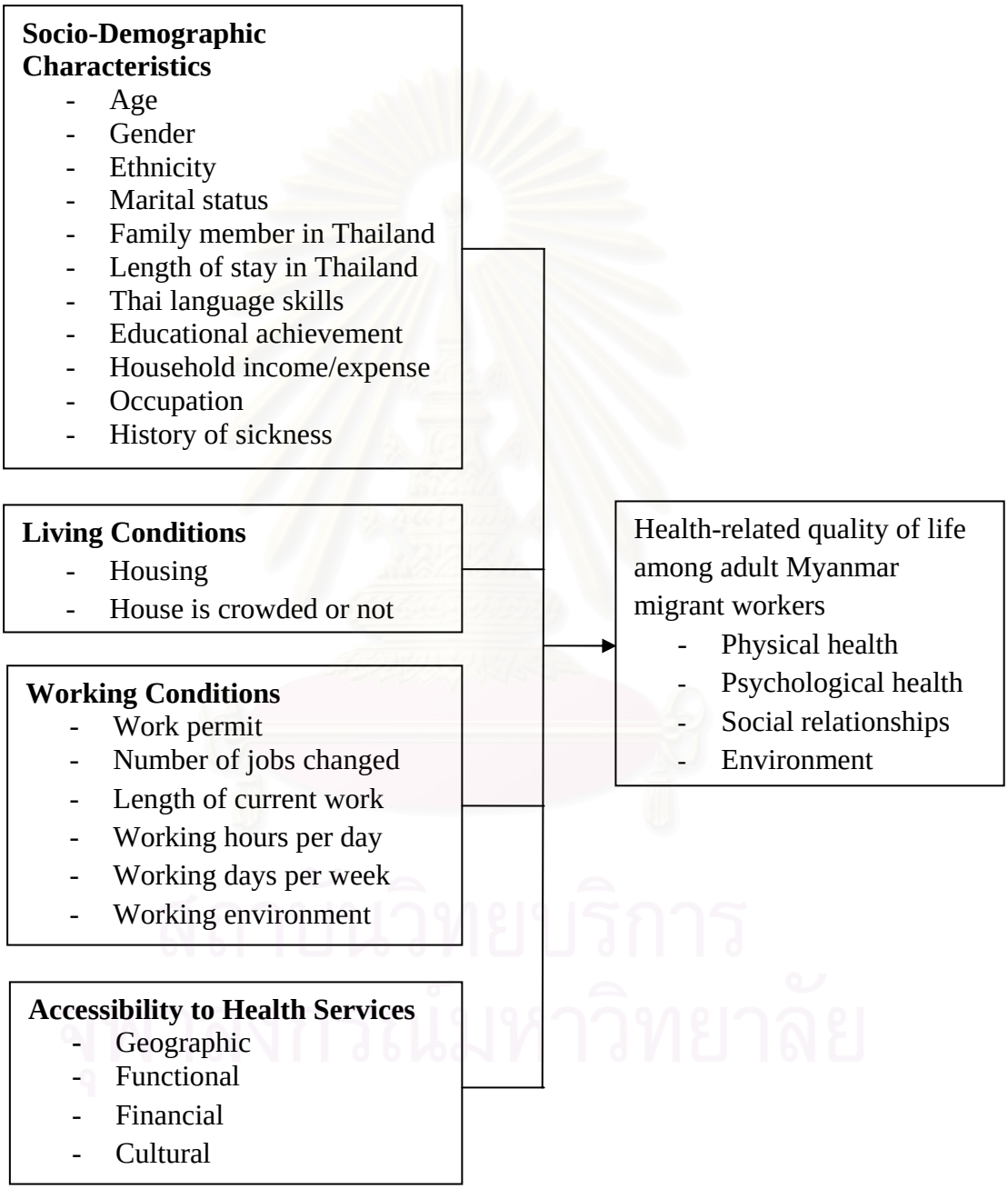

Figure 1 Conceptual Framework

1.5 Operational Definitions

A migrant worker is "a person, who is to be engaged, is engaged or has been engaged in a remunerated activity in a State of which he or she is not a national."

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

1.5.1 Independent Variables

- Age refers to how old the interviewee is at the time of the interview

- Gender refers to male and female

- Ethnicity refers to which ethnicity does the interviewee belongs to and it is diversified into Mon, Karen, Rakhine, Dawei, Myanmar, and others

- Marital status refers to the current marital status of the interviewee. It is classified into married, single, widowed, and divorced/separated

- Thai language skills refers to whether the interview can communicate in Thai language or not

- Educational achievement refers to the highest year or education of the interviewee. It was divided into no education, primary education, secondary education, higher education

- Monthly household income/ expenditure refer to the amount of money that the interviewee and the family members receive/use per month. Fraction of monthly income sent back to Myanmar is separately asked although it is included in monthly expenditure to provide more information how the respondents spent their monthly income. Household in this study means the family members and/or spouse of the interviewees in Thailand only.

- Occupation refers to present job that the interviewee relies on for his/her survival.

- History of illness refers to the self-reported sickness that interviewee has suffered from within past 4 weeks

- Housing refers to type of house

- Work permit refers to whether interviewee current migrant status is as registered or not

- Number of job changed refers to the how many jobs did the interviewee changed before working in current job in Thailand

- Length of work refers to the period of working in current working place

- Working hours refers to the period of time during the day when working

- Working environment refers to perception on the situations of working place temperature, noise, light, ventilation, smell, working body position and salary

- Access to health service is the process initiated from the need for health care to contacting and using health services/referral system. It is worth noting that the information regarding accessibility to health care services among adult Myanmar migrant workers will be derived first from the use of structured interview with the Myanmar respondents, and second through the in-depth interview with the source of health care service provider, for instance, local medical clinics, drugstores, or local hospitals, as stated by the interviewees themselves.

1.5.2 Dependent Variable

Health-related quality of life (HRQoL) is defined as individuals' 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 (World Health Organization, 1993).

In this study, HRQoL was measured by WHOQOL-BREF, which contained four domains:

- Physical health
- Psychological Health
- Social relationships and
- Environment

For further analysis, total score from summation of 26 items was used to assess the relationships between independent and dependent variables.

CHAPTER II

LITERATURE REVIEW

2.1 Definition of Health

Health is a state of complete physical, mental and social well-being, and not merely the absence of disease or infirmity (World Health Organization, 1958).

2.2 Concepts of Quality of Life

They are variously termed Quality of life (QoL) or Health-Related Quality of Life (HRQoL). Quality of life is a broad concept, including the dimensions covered by general health measures and extending to other topics.

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 safety, level of freedom, and opportunity; health status also forms one of many components in this broad concept (McDowell, 2006).

An expert group meeting convened by the Economic and Social Commission for Asia and Pacific (United Nations, 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 (Haas, 1999; 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. Examples and brief descriptions are as follows:

2.3.1 Nottingham Health Profile: The NHP was designed to give a brief indication of perceived physical, social and emotional health problems. Originally intended for use in primary medical care settings, the NHP has also been used to assess need for care in health surveys and has been used as an outcome measure in clinical trials (Hunt, J, & SP, 1985).

2.3.2 Medical outcomes study 36-item Short Form (SF-36)

SF-36 is designed to assess health status for use in population surveys and evaluative studies of health policy. It can also be used in conjunction with disease-specific measures as an outcome measure in clinical practice and research (McDowell, 1996).

The SF-36 derived from the work of the RAND Corporation of Santa Monica during the 1970. Perceived well-being is subjective and cannot be completely inferred from behavior: hence, the SF-36 includes questions on feeling states. The SF-36 includes multi-item scales to measure the following eight dimensions: Physical functioning, role limitations due to physical health problems, bodily pain, social functioning, mental health, role limitation due to emotional problems, vitality and general health perceptions.

In addition, the questions on overall evaluation of health provide a summary indicator and capture the impact of health problems not directly covered by the other questions. The second question covers change in health status over the past years: this is not counted in scoring the eight dimensions but is used to estimate change in health from a cross-sectional administration of the SF-36 (McDowell, 2006).

2.3.3 Medical outcomes study 12-item Short Form (SF-12)

This is the abbreviation of the SF-36 Health Survey. It was designed to be broad ranging but brief enough for practical use in large scale surveys and yet still reproduce the physical and mental score of the complete survey. Its main application is in surveys and in outcome studies where space constraints prevent the use of SF-36. SF-12 was developed with the goals of accounting for at least 90% of the variance in the SF-36 physical and mental summary scores, of providing summary scores that

would coincide with the average scores on the complete Sf-36, and of being brief enough to be administered in less than two minutes.

Ware et al. modified that SF-36 by taking ten items from six of the eight SF-36 scales to reproduce 90% variance in the physical and mental scores. One item each from the remaining two scales, thus forming the 12-item version that covers the same dimensions as the original SF-36. The first version of the SF-12 was produced in 1994, and a second version was presented in 1998. These differ in terms of the recall period: acute (one week) and standard (four week) (Ware, Kosinski, & Keller, 1996).

In survey applications, the SF-12 substantially reproduces the PCS and MCS scale values obtained by the SF-36, yet imposing only one third of the respondent burden. The SF-12 is remarkably effective as a brief but broad-ranging instrument, certainly suitable for survey use and probably also sensitive to change as an evaluative instrument (McDowell, 2006).

2.3.4 World Health Organization Quality of Life (WHOQOL-100)

The WHO (1993) defined quality of life as “individuals’ perception of 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 incorporating in a complex way the person’s physical health, psychological state, level of independence, social relationships, personal beliefs and their relationship to salient features of the environment”. The WHO has developed a quality of life scale (WHOQOL) for use in different cultures, since 1992. A series of meetings in Geneva set the operational parameters for the development of a new quality of life instrument under the auspices of the WHO. There are two versions of the instrument, the WHOQOL–100 and the short form WHOQOL-BREF. These instruments have many

uses, including use in medical practice, research and policymaking. They can be used in a variety of cultural settings whilst allowing the results from different populations and countries to be compared (World Health Organization, 1996b).

WHO QOL-100 consists of 6 domains with 28 facets of QoL, as follows:

Domain 1 Physical domain

1. Pain and discomfort

This facet explores the unpleasant physical sensations experienced by a person, and the extent to which these sensations are distressing and interfere with life.

2. Energy and fatigue

This facet explores the energy, enthusiasm and endurance a person has to perform the necessary tasks of daily living, including recreation.

3. Sleep and rest

This facet is concerned with how much sleep and rest and problems in this area affect the person's quality of life.

Domain II Psychological Domain

4. Positive feelings

This facet examines how much a person experiences positive feelings of contentment, peace, happiness, hopefulness, joy and enjoyment of the good things in life.

5. Thinking, learning, memory and concentration

This facet explores a person's view of his/her thinking, learning, memory, concentration and ability to make decisions.

6. Self-esteem

This facet examines how people feel about themselves, both positively and negatively. The aspect of self-esteem is concerned with a person's feeling of self efficacy, satisfaction with oneself; control is also included in the focus of this facet.

7. Body image and appearance

This facet examines the person's view of his/her body, and whether the appearance of the body is viewed in a positive or negative way.

8. Negative feelings

This facet is concerned with how much a person experiences negative feelings, including despondency, guilt, sadness, tearfulness, despair, nervousness, anxiety and a lack of pleasure in life.

Domain III- Level of Independence

9. Mobility

This facet examines the person's view of his/her ability to get from one place to another, move around the home, or to and from transportation services.

10. Activities of daily living

This facet explores a person's ability to perform usual daily living activities, including self-care and appropriate care for property.

11. Dependence on medication or treatment

This facet examines a person's dependence on medication or alternative medicines to support his/her physical and psychological wellbeing.

12. Work capacity

This facet examines a person's use of his/her energy for work. "Work" is defined as any major activity in which the person is engaged.

Domain IV- Social relationships

13. Personal relationships

This facet examines the extent to which people feel the companionship, love and support they desire from the intimate relationships in their life.

14. Practical social support

This facet examines how much a person feels the commitment, approval and availability of social assistance from family and friends.

15. Sexual activity

This facet is concerned with a person's urge and desire for sex, and the extent to which the person expresses and enjoys his/her sexual desire appropriately.

Domain V – Environment

16. Physical safety and security

This facet examines the person's sense of safety and security from physical harm. A threat to safety or security might arise from any source, such as other people or political oppression.

17. Home environment

This facet examines the principal place where a person lives, and the way that this impacts on the person's life.

18. Financial resources

This facet explores the person's view of his/her financial resources and the extent to which these resources meet the needs for a healthy and stable life style. The focus is on what the person can or cannot afford.

19. Health and social care: availability and quality

This facet examines the person's view of the health and social care in the near vicinity.

20. Opportunities for acquiring information and skills

This facet examines a person's opportunity and desire to learn new skills, acquire new knowledge, and feel in touch with what is going on.

21. Participation in, and opportunities for, recreation and leisure

This facet explores a person's ability, opportunities and inclination to participate in leisure time and relaxation

22. Physical environment

This facet examines the person's view of his/her environment. This includes the noise, pollution, climate and general esthetics of the environment and whether this serves to improve or severely affect quality of life.

23. Transport

This facet examines the person's view of how available or easy it is to find and use transport services to get around.

Domain VI- Spirituality/ Religion/ Personal Beliefs

24. Spirituality/ Religion/ Personal beliefs

This facet examines the person's personal beliefs and how these affect quality of life. This may be by helping the person cope with difficulties in his/her life, giving structure to experience, describing meaning to spiritual and personal questions, and more generally, providing the person with a sense of wellbeing.

Overall Quality of Life and Health

25–28. Overall Quality of Life and Health

These questions examine the ways in which a person assesses his/her overall quality of life, health and wellbeing (World Health Organization, 1993).

However, the WHOQOL-100 was found to be too long for use in community surveys. So, WHO developed a short version with 26 items, it called " WHOQOL-BREF" for field surveys, by selecting 26 items from the WHOQOL-100.

2.3.5 WHOQOL-BREF

An abbreviated version, the WHOQOL-BREF, contains 26 of the 100 items, one for each facet and two general items. For healthy people, the BREF takes less than five minutes to complete. It has been tested in a great variety of samples (McDowell, 2006).

Table 2.1: WHOQOL-BREF domains

Domain	Facet incorporated within domains
1. Physical health	- Activities of daily living - Dependence on medicinal substances and medical aids - Energy and fatigue - Mobility - Pain and discomfort - Sleep and rest - Work capacity
2. Psychological	- Bodily image and appearance - Negative feelings - Positive feelings - Self-esteem - Spirituality/religion/personal beliefs - Thinking, learning, memory and concentration
3. Social relationships	- Personal relationships - Social support - Sexual activity

Table 2.1: (Continued) WHOQOL-BREF domains

Domain	Facet incorporated within domains
4. Environment	- Financial resources - Freedom, physical safety and security - Health and social care: accessibility and quality - Home environment - Opportunities for acquiring new information and skills - Participation in and opportunities for recreation/ leisure activities - Physical environment (pollution/noise/traffic/climate) - Transportation
5 Overall QoL & General Health Facet	

Source: WHOQOL-BREF - Instructions, Field Trial Version, December 1996

2.4 Importance of HRQoL Measurement

There are many valid reasons for measuring HRQoL:

(1) HRQoL data may supplement/complement information not available with other traditional clinical and physiological measures.

(2) HRQoL measurements help in screening, describing health status, decision making in the management of individual patients, formulation of health policy and making resource allocation decisions.

(3) HRQoL allows the assessment of the standard of health care (Sajid, Tonsi, & Baig, 2008).

2.5 Background of Myanmar Migrant workers in Samut Sakhon Province, Thailand

Samut Sakhon is a key destination of migrant workers in Thailand. A concentration of labour- intensive industry in Samut Sakhon is a key destination for migrant workers. One of the wealthiest provinces in Thailand, Samut Sakhon is

central to the seafood-processing industry, with the majority of these workers coming from across Myanmar, and also from Lao PDR and Cambodia (SIREN, 2007).

According of Ministry of Interior, the estimation of registered number of migrants in Samut Sakhon Province was 103,426 in 2004 and it represented as 23.69 migrants/100 Thai people. In 2006, 151,821 of migrants had registered and became 33.27 migrants/100 Thai people as illustrated in table 2.2.

In 2006, Ministry of Interior reported that there were 4,243 of establishments in 3 districts of Samut Sakhon (Muang, Kra-bum-ban and Ban-phaew). Among them, 131,547 out of total 151,821migrants workers worked and settled as registered workers in Muang district. According to data provided by Samut Sakhon employment office, 73,498 of Myanmar migrant workers registered in 2004 and in 2006, a number which has been increasing to 89,402 as described in table 2.4.

Table 2.2: Number of Samut Sakhon's Population in 2004 and 2006

Year	Thai nationality	Registered migrants	Migrants/100 Thai people
2004	436,534	103,426	23.69
2006	462,796	151,821	33.27

Source: Bureau of Registration Administration, Department of Provincial Administration, Ministry of Interior (2006) cited in (Archavanitkul, 2007)

Table 2.3: Number of establishment and migrant workers by district in Samut Sakhon (2006)

District	Number of establishment*	Number of registered migrant workers**
Muang	2,315	131,547
Kra-bum-ban	1,834	16,474
Ban-phaew	94	3,800
Total	4,243	151,821

Source: *Department of industrial work (2006) cited in (Archavanitkul, 2007)
** Bureau of Registration Administration, Department of Provincial Administration, Ministry of Interior (2006) cited in (Archavanitkul, 2007)

Table 2.4: Number of registered migrant workers in Samut Sakhon, 2004-2006 (classified by country of origin)

Year	Total Number	Country of Origin		
		Myanmar	Cambodia	Lao
2004	79,664	73,498	4,746	1,420
2005/1	73,896	69,445	3,771	670
2005/2	40,672	38,604	443	1,625
2006(August)	91,551	89,402	1,699	450

Source: Samut Sakhon Employment Office (2006) cited in (Archavanitkul, 2007)

Based on occupation, 60% most of Myanmar migrant workers in Samut Sakhon employed in the seafood processing and others were in construction field and agriculture and husbandry. This data was from nationality of registered migrant workers in Samut Sakhon province, 2005 as described in table 2.5.

Regarding health check-up status for migrant workers in Samut Sakhon, classified by Health care center, there were 4 main health centers that provide health services to migrants workers (Srivichai 5, Samut Sakhon, Ban-phaew and Kra-tum-ban) . In 2004, srivichai 5 health care center provided nearly half of total cases (40,937 cases) of migrant workers and 34,447 of cases in 2005. Samut Sakhon health care center was the second most one that received health care services by migrants workers as described in table 2.6.

Samut Sakhon provincial health office reported that 75,687 and 71,085 of health insurance cards were applied to migrant workers in 2004 and 2005 respectively.

Table 2.5: Nationality of registered migrant workers in Samut Sakhon Province, 2005 (data based on occupation)

			Myanmar		Lao		Cambodian	
Type of business	Total	%	M	F	M	F	M	F
Total	73,896	100.0	34,771	34,684	1,935	1,836	452	218
1. Fishery	1,890	2.6	1,703	62	75	12	37	1
2. Seafood processing	45,033	60.9	18,066	26,581	120	192	42	32
3. Agriculture and husbandry	1,415	1.9	751	608	28	26	1	1
4. Rice mill	127	0.2	72	31	16	8	0	0
5. Brick factory	115	0.2	84	31	0	0	0	0
6. Ice factory	464	0.6	416	40	5	1	2	0
7. Shipping	274	0.0	162	16	52	1	43	0
8. Construction	3,720	5.0	2,331	1,051	87	45	154	52
9. Mine	0	0.0	0	0	0	0	0	0
10. Servant	1,180	1.6	189	575	23	363	5	25
11. Others	19,678	26.6	10,997	5,689	1,529	1,188	168	107

Source: Samut Sakhon Employment Service Office (2005) cited in (Archavanitkul, 2007)

Table 2.6: health check-up for migrant workers in Samut Sakhon, classified by Health care center (2004-2005)

Health care center	Cases	
	2004	2005
Srivichai 5	40,939	34,447
Samut Sakhon	21,043	25,474
Ban-phaew	15,186	2,526
Kra-tum-ban	7,228	9,158
Total	84,396	71,605

Source: Samut Sakhon Provincial Health Office cited in (Archavanitkul, 2007)

Table 2.7: Number of Health Insurance Cards Sold in Samut Sakhon

Year	Number
2004	75,687
2005	71,085

Source: Samut Sakhon Provincial Health Office cited in (Archavanitkul, 2007)

2.6 Review of studies on Health-Related Quality of Life and Migrants

Action for REACH OUT and the Chinese University of Hong Kong carried out a survey among 89 street sex workers to explore their quality of life using the WHOQOL Measure, and to assess various life-styles including diet, exercise, sleep and leisure activities. The results exposed a number of weaknesses, such as poor psychological and physical health as well as lack of access to the health services and lack of legal protection, for which further actions and services are required (Center for Disease Control, 1987). A study in China by Zhang et al. (2009) revealed that some of the socio-demographic characteristics had associations with health-related quality of life by using WHOQOL-BREF to assess the quality of life (QOL) among rural-to-urban migrants in China (Zhang, Li, Fang, & Xiong, 2009).

A study used WHOQOL-BREF to identify and compare the QoL in somatoform pain patients from Austria and migrants from the former Yugoslavia as diagnosed by DSM-IV criteria. The results showed clear quality-of-life differences between somatoform pain patients from Austria and the former Yugoslavia. In addition to that, the two groups also reported significant differences with regard to psychopathological factors (depressive symptomatology) which have in turn a major impact on QoL (Aigner, 2007).

One study on quality of life of migrant labours in Samut Sakhon Province, Thailand using SF 36 also reported the relationships between socio-demographic characteristics, living conditions, working conditions, risk behaviors and quality of life (Nishihara, 2007). One study in China was conducted to explore the mental health scale using SF-36 mental health items and health-seeking behaviors of migrant workers in Hangzhou city, Zhejiang Province, and to compare them with permanent

urban and rural dwellers. (Lubetkin & Gold, 2000). SF-36 was also used to examine the association between migration status and HRQoL in a comparison of elderly Iranians in Iran, elderly Iranian immigrants in Sweden, and elderly Swedes in Sweden (Koochek, Montazeri, Johansson, & Sundquist, 2007).

One study in Phangnga Province of Thailand using SF12 explored the factors that influenced health-related quality of life among Myanmar migrant workers. The study factors included socio-demographic characteristics, interviewee's social relationship with people, interviewee's sense of security in community and workplace situation (Ti, 2007). A study in the United States of America using SF-12 to assess HRQoL of non-American patients at a community health center in the New York City. Results showed the scores increased with increasing level of income and educational attainment and decreased with increasing age group (Li et al., 2007)

2.7 Accessibility to health care services

WHO defines equity in health as “reducing unfair and avoidable disparities in health outcomes between groups, and ensuring access to equitable health care on the basis of need (World Health Organization, 1996a).”

Access to health care services is the process initiated from the need for health care to contacting and using health services. According to World Health Organization, (1978):

“Accessibility is the number or proportion of the given population that can be expected to use a specified facility, service, etc., given a certain barrier to access, which may be physical (distance, travel, time), economic (travel cost, service fee, time cost), or social and cultural (language) barriers.”

(1) 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.

(2) Functional accessibility: it is the process and method of managing of care to those who need it. The ways that care is delivered to patients affect the accessibility to care.

(3) 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. Financial access also relates to time and money spent to reach health services. Time means cost since patients have to sacrifice their earning time to arrive the intended health services.

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

2.8 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 & Bergner, 1990). Sajid et al. also stated that measurement of HRQoL allows the assessment of the standard of health care (Sajid, Tonsi, & Baig, 2008).

Ren and Amick, 1996 stated that self-reports of health depends on cultural factors, ethnicity and access to health care (Ren & Amick, 1996). After an intensive literature search, no studies have been done to identify the association between the accessibility to health care services and health-related quality of life among migrant workers in general and among adult Myanmar migrant workers in Thailand in particular. This study is thus intended to fill this knowledge gap and attempt to investigate whether there is an association between the accessibility to health care services and health-related quality of life of adult Myanmar migrant workers in Mahachai Sub-district, Samut Sakhon area of Thailand.

CHAPTER III

METHODOLOGY

3.1 Research Design

This study was a cross-sectional study to assess the health- related quality of life among adult Myanmar migrant workers (age 18-59 years) in Mahachai Sub-district, Samut Sakhon Province, Thailand

3.2 Study Area

The study area was Mahachai Sub-district, Samut Sakhon Province, located 28 kilometers southwest of Bangkok, Thailand.

3.3 Study Period

First of February to fourteenth February 2009

3.4 Study Population and Research Respondents

The study population was adult Myanmar migrant workers (age 18-59 years) residing in Mahachai Sub-district in Samut Sakhon Province, Thailand, and two health care service providers (one NGO physician and one drug store keeper).

3.5 Sample Size

Sample size in this research was calculated by the following formula that was created by Daniel, (Daniel, 2005) p.189:

$$n = \frac{Z^2 pq}{d^2}$$

n = sample size

Z = standard value for 95% confidence interval = 1.96

d = error allowance = 0.05

p = the proportion of targeted population who have good health -related quality of life

= 50% = 0.5 (with the assumption of maximum variance)

q = 1-p = 1-0.5 = 0.5

$$n = \frac{Z^2\ pq}{d^2}$$

$$n = \frac{(1.96)^2\ (0.5)\ (0.5)}{(0.05)^2} = 384$$

Sample size = 384. A total of 400 interviews were made to cover missing values and losing respondents.

3.6 Sampling Technique

Multistage sampling method was used to collect the sample.

First stage – Thailand is divided into 75 provinces which are categorized into 5 groups of provinces by location. Samut Sakhon province was selected purposively from 75 provinces.

Second stage – There are 3 districts in Samut Sakhon province, namely, Muang (composing of 18 sub-districts), Kra-tum-ban (composing of 10 sub-districts), and Bann-Paew (composing of 12 sub-districts). Out of three districts, Muang District was chosen. Out of 18 sub-districts of Muang, Mahachai Sub-district is chosen purposively due to the density of adult Myanmar migrant workers in this area.

Third stage – There are 32 communes in Mahachai Sub-district. Commune was selected randomly and all adult Myanmar migrant workers (age 18 to 59 years) in that commune had an equal opportunity to be selected. If the sample was not enough in

one commune, another commune was selected until the sample met the required number. Altogether four communes were included in this study.

3.6.1 Inclusion criteria of the respondents were (1) Myanmar migrant workers who can speak Burmese, (2) age between 18 to 59 years (3) who have been working in Mahachai Sub-district, Samut Sakhon for more than six months, and (4) were willing to participate in the research.

3.6.2 Exclusion Criteria of the respondents were (1) migrant workers who have difficulties to communicate in Burmese, (2) age less than 18 or older than 59 years, (3) who have been working in Mahachai Sub-district, Samut Sakhon for less than six months, and (4) who refused to give informed consent.

3.7 Measurement Tools - structured face-to-face interviews and in-depth interview guideline. In this study, there were both independent and dependent variables.

3.7.1 Independent Variables

Socio-demographic characteristics included:

- Age, gender, ethnicity, marital status, Thai language skills, educational achievement, monthly household income/expenditure, fraction of monthly income sent back to Myanmar, occupation, respondents' history of illness and receiving health care service within past 4 weeks, family members' history of illness and receiving health care service within past 4 weeks

Living conditions included:

- Housing, perception on crowdedness of living place

Working conditions included:

- Work permit, number of job changed before getting current job in Thailand, length of current work, working hours per day, working days per week, working environments which included temperature, noise, light, ventilation, smell, working body position and salary

Accessibility to health care services included**:**

- Health facility visited when sick, distance to get to health facility, time taken to get to health facility, difficulty to go to health facility, opinion on opening hour, waiting time to meet health care service provider, opinion on waiting time, opinion on crowdedness of health facility, being welcomed, able to talk about disease, availability of the drugs at the health facility, convenience to buy drug, satisfaction on quality of care, health insurance, opinion on consultant fees, opinion on drug price, privacy of physical examination room

3.7.2 Dependent Variables

Health-related quality of life (HRQoL) is defined as individuals' perception or 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 (World Health Organization, 1993).

In this study, HRQoL was measured by WHOQOL-BREF, which contained four domains:

Physical health - activity of daily living, dependence on medical substances and medical aids, mobility, energy and fatigue, pain and discomfort, sleep and rest, work capacity

Psychological factors - bodily image and appearance, negative feelings, positive feeling, self-esteem, spiritual/religion/ personal beliefs, thinking learning, memory, and concentration

Social relationships - personal relationship, social support, sexual activity

Environment - financial resource, freedom, physical safety and security, health and social care, home environment, opportunity to acquire new information and skills, participation in and opportunity for creation, physical environment, transport

Other two topics for overall quality of life and general health facets

The 5-point response scale ranged from “1” to “5” with the alternatives:

1 = very poor/very dissatisfied/not at all;

2 = poor/ dissatisfied/a little;

3 = neither poor nor good/neither satisfied nor dissatisfied/a moderate amount;

4 = good/satisfied/very much;

5 = very good/very satisfied/an extreme amount

For the 26 questions of WHOQOL-BREF, the possible scores ranged between 26 and 130 points. The QoL was then determined by dividing the scores into three groups as follows (World Health Organization, 1996b):

Table 3.1: 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 & general health facet	2-4	5-7	8-10
	Total scores	26-60	61-95	96-130

3.8 Pre-testing

The face-to-face interviews were pre-tested among 30 adult Myanmar migrant workers in Bangkok who had the same characteristics as the selected population. The reliability of the questionnaires was calculated by using Cronbach's alpha coefficient. Each scale's reliability was as follows:

1 Total quality of life (26 items): Alpha coefficient value = 0.861

2 Physical Health (7 items): Alpha coefficient value = 0.752

3 Psychological (6 items): Alpha coefficient value = 0.720

4 Social relationships (3 items): Alpha coefficient value = 0.744

5. Environment (8 items): Alpha coefficient value = 0.826

3.9 Data Collection

Data was collected by structured face-to-face interviews (and in-depth interview as above stated) with the respondents by the researcher and two other assistant researchers who understand Burmese language well. Structured face-to-face interviews that were translated to Burmese Language with formal valid check were used.

The researcher contacted with the staff of health centre and the community leaders by snowball technique. Then recruitment of two assistant researchers and training were followed. These two assistant researchers had four hours for discussing issues in the structured face to face interview and technique how to approach participants and four hours of field practice under researcher's supervision. The objectives and information about the study were explained to the respondents with their consent prior to starting the interviewing. Reaching for research respondents was

done with the help of NGO/community volunteers and assistant researchers who were migrant workers themselves.

All respondents were interviewed by the use of the same structured face-to-face interviews. If there was any problem raised while conducting the research because of some sensitive items in the structured face-to-face interviews, the researcher comforted the interviewee; provided suggestions/advice, as well as being a good listener and counselor. This was proved true both for assistant researchers and researcher himself. After interviewing, the researchers checked the items of the structured face-to-face interviews which were required to be answered completely. If missing data was found, interview was repeated with the same respondent.

Qualitative research methods produce qualitative information, which is often recorded in a narrative form and MP 3 recorder. The qualitative method involves the identification and exploration of a number of often-related variables that give insights into the nature and causes of certain problems and into the consequences of the problems for those affected (International Development Research Center, 1991). In-depth interviews with key informants from the community were done by the researcher. One NGO physician and one drug store keeper were chosen purposively for the qualitative study in this research and researcher introduced himself as medical doctor to get the rapport. During the interviews, audio-recording (deleted after data analysis) in Burmese language had been transcribed in Burmese language and then it was translated into English. Tabulation, summarizing and drawing conclusion were done.

3.10 Data Analysis

Statistical package was used for quantitative data analysis.

Descriptive statistics: frequency, percentage, mean, standard deviation, median and range were calculated for the subject characteristics, living conditions, working conditions, accessibility to health care services and health-related quality of life.

Inferential statistics: In this research, after testing with One-Sample Kolmogorov-Smirnov Test, the normal distribution of total mean score of HRQoL was found. The relationships between the independent variables and dependent variable (HRQoL) were presented by –

1. Unpaired t-test to study the difference between two continuous variables.
2. One-way ANOVA for more than two groups

Statistical significance was set as $p<0.05$. If a statistical significant difference was found, LSD (least significant difference) method was applied for post hoc comparisons to specify which of the subgroups were responsible for the overall statistical significant difference.

For qualitative data, ordering, coding, summarizing and drawing conclusion were done.

3.11 Ethical Consideration

Before conducting the research, approval from the Ethical Committee of Chulalongkorn University (through the College of Public Health Sciences) was obtained as COA no. 108/2009 issued on 28 January 2009. Before interviewing the respondents, the researcher and assistant researchers gave clear verbal explanation to each potential respondent on the purposes and procedures of the study. Each potential

respondent was informed that participation in the study was completely voluntary and that they could withdraw at any time which would not affect them by all means. The informed consents were be obtained from the respondents who were willing to participate in the study

3.12 Limitations

This study was conducted only in Mahachai Sub-district, Samut Sakhon Province, Thailand. Thus, it might not be a representative of all adult Myanmar migrant population in Thailand. In this study, the researcher targeted only adult Myanmar migrants workers. Researcher could not know the QoL of different subgroups within Myanmar as well as Thai workers. Therefore, comparison between those different groups were not possible.

Because there was a limitation of time for the research and being a cross-sectional study, the researcher could not avoid the seasonal variation.

As well, perception survey can be useful, but it needs to recognize the biases that can be introduced. Researcher had no possibility to verify the information recalled by the individual due to lack of observation.

Although WHOQOL-BREF was proved to be suitable to apply on the target population, because of complex nature of quality of life, it was still difficult to compare with other instruments such as Short Form Surveys. Those studies on HRQoL using SF36 and SF12 rather than WHOQOL-BREF were oriented to measure physical functioning, role limitations due to physical health problems, bodily pain, social functioning, general Mental Health, covering psychological distress and well-being, role limitation due to emotional problems, vitality, energy or fatigue, general

health perceptions.. Therefore it may be not appropriate to compare their results with this study.

3.13 Expected Benefits and Applications

This study will give the baseline data on the accessibility to health services and health-related quality of life using WHOQOL-BREF among adult Myanmar migrant workers in Mahachai Sub-district, Samut Sakhon Province, Thailand.

This study is expected to assess the relationships between accessibility to health services, living conditions, working conditions and health- related quality of life among Myanmar migrant workers in Mahachai Sub-district, Samut Sakhon Province, Thailand.

From the findings of the study, both government and non-government sectors are expected to formulate strategies to promote health-related quality of life of the targeted migrants.

CHAPTER IV

RESULTS

This study was conducted in Mahachai Sub-district, Samut Sakhon Province, Thailand during 1st and 14th February 2009. Total of 400 adult Myanmar Migrant workers were interviewed face-to-face for quantitative data and in-dept interviews were conducted with two health care service providers about the nature of accessibility to health care services and health-related quality of life of the adult Myanmar migrant workers. This chapter documents the main findings of the analysis and is divided into two parts (1) the quantitative results and (2) the qualitative results.

4.1 Quantitative results

Quantitative results include socio-demographic characteristics, living conditions, working conditions, nature of accessibility to health care services, and health-related quality of life. Finally, associations were analyzed between independent variables and health-related quality of life of adult Myanmar migrant workers in Mahachai sub-district, Samut Sakhon Province, Thailand.

4.1.1 Socio-demographic characteristics of respondents

According to the results from the data collection, it was found that most of respondents were twenty to twenty-nine years (52.25%). Males are more than females: (54.5%) and (45.5%) respectively. Among the respondents, 47.0 % were Myanmar and 49.5% were married. Nearly half (48%) of respondents had one to two family members living in Thailand and majority of the respondents (32.5%) had duration of stay in Thailand between four to seven years.

Table 4.1: Number and percentage of respondents by socio-demographic characteristics (n=400)

Socio-demographic Characteristics	Number	Percentage
Age (Years)		
≤19	27	6.75
20-29	209	52.25
30-39	126	31.50
≥40	38	9.50
Mean ± SD = 28.83 ± 7.77 Range = 18 - 55 Median = 28		
Gender		
Male	218	54.50
Female	182	45.50
Ethnicity		
Mon	80	20.00
Karen	28	7.00
Rakhine	12	3.00
Dawei	83	20.75
Myanmar	188	47.00
Others (Gawrakhar, Shan, Myeik)	9	2.25
Marital Status		
Single	187	46.75
Married	198	49.50
Widow	2	0.50
Divorced/Separated	13	3.25
Number Of Family Member In Thailand		
None	45	11.25
1-2	192	48.00
3-4	131	32.75
>4	32	8.00
Duration Of Stay In Thailand (Years)		
<1	11	2.75
1-3	128	32.00
4-7	130	32.50
8-10	81	20.25
≥11	50	12.50
Mean ± SD = 6.157 ± 4.185 Range = 0.5 -28.2 Median = 2		

More than half (53.0%) of the respondents could communicate basically in Thai language and 42.0 % completed the highest education at the secondary school level.

The largest groups of the respondents had monthly income more than 6,000 baht (46.25%), and monthly expense between 2,000 baht and 3,999 baht (50.5%). Thirty-two per cent of respondents reported that they sent 20.0-39.0% of their monthly income back to Myanmar.

In respect of occupation, most of the respondents were working in seafood processing industry (58.0%) followed by those working in fishery (20.5%).

For the data of respondents' own sickness, 36.75% had experienced sickness in the past four weeks. Among those who experienced sickness, 81.63% received health care services. For the data of the sickness of the respondents' family member, 14.37% had experienced sickness in the past four weeks and among those who experienced sickness, 88.24% received healthcare service as illustrated in table 4.1.

The type of sickness experienced by the respondents and their family members were summarized in the table 4.1. Non-specific symptoms constituted the largest proportion in both groups which included fever, weakness and dizziness. The reasons for not receiving health care services were found to be buying medicine from drug store, sickness was not severe, no time to go to health service center and fear of police arrest.

Table 4.1: (Continued) Number and percentage of respondents by socio-demographic characteristics (n=400)

Socio-demographic Characteristics	Number	Percentage
Thai Language Skills		
Cannot communicate at all	82	20.50
Can communicate basically	212	53.00
Can speak fluently, cannot read/write	99	24.75
Fluent in Thai	7	1.75
Education		
No education	11	2.75
Primary	89	22.25
Secondary	168	42.00
Higher	132	33.00
Monthly Income (Baht)		
<2,000	10	2.50
2,000-3,999	50	12.50
4,000-5,999	155	38.75
≥6,000	185	46.25
Monthly Expense (Baht)		
<2,000	157	39.25
2,000-3,999	202	50.50
4,000-5,999	29	7.25
≥6,000	12	3.00
Fraction Of Monthly Income Sent Back To Myanmar		
None	66	16.50
1-19%	105	26.25
20-39%	128	32.00
40-59%	63	15.75
60-79%	35	8.75
80-100%	3	0.75
Types Of Occupation		
Seafood processing	232	58.00
Fishery	82	20.50
Manufacturing workers	36	9.00
Agriculture	2	0.50
Others (Construction,Ice Factory,Shipping,Servant)	48	12.00

Table 4.1: (Continued) Number and percentage of respondents by socio-demographic characteristics

Socio-demographic Characteristics	Number	Percentage
Respondents' Sickness In The Past Four Weeks (n=400)		
Sick	147	36.75
Not sick	253	63.25
Respondents Received Health Care Service (n=147)		
Received	120	81.63
Not received	27	18.37
Family Members Sickness In The Past Four Weeks (n=355)		
Sick	51	14.37
Not sick	304	85.63
Family Members Received Health Care Service (n=51)		
Received	45	88.24
Not received	6	11.76

Table 4.1: (Continued) Number and percentage of respondents by socio-demographic characteristics

Socio-demographic Characteristics	Respondents		Family Members	
	Number	Percentage	Number	Percentage
Sickness within past four weeks				
Non Specific	52	35.37	23	45.10
Musculo-Skeletal Disorders	26	17.69	4	7.84
Gastro-Intestinal Tract	21	14.29	9	17.65
Upper Respiratory Tract Infection	14	9.52	11	21.57
Maternal and Child Health	8	5.44	1	1.96
Lower Respiratory Tract Infection	7	4.76	0	0.00
Malaria	6	4.08	1	1.96
Skin	5	3.40	0	0.00
Accident and injury	4	2.72	1	1.96
Dental	2	1.36	0	0.00
Urinary Tract Infection	2	1.36	0	0.00
Tuberculosis	0	0.00	1	1.96
Total	147	100.00	51	100.00

4.1.2 Living Conditions

When looking at the living conditions, 366 of the respondents (91.5%) were living in rented room. A large number of respondents (86.0%) perceived their living place as not crowded, while 14.0% of them perceived their living placed as crowded as illustrated in table 4.2.

Table 4.2: Number and percentage of respondents by living conditions (n=400)

Living Conditions	Number	Percentage
Type of House		
Lodging in work compound	16	4.00
Rent	366	91.50
Provided by employer	15	3.75
Others (Stay in boss's house)	3	0.75
Perception on House Crowdedness		
Crowded	56	14.00
Not Crowded	344	86.00

4.1.3 Working Conditions

As can be seen from table 4.3, 72.0% of the respondents had work permit. Over half of the subjects (54.0%) had been working in current job for one to three years, and 50.25% of the subjects had to change their jobs one to two times before getting the current job. Majority of the respondents (53.75%) had working hours less than or equal to 8 hours per day, and majority of the respondents (58.5%) worked 6 days per week. Regarding the satisfaction of the work place, respondents' satisfaction of sound condition, light condition, ventilation, smell condition, working body position and salary were 71.25%, 84.75%, 75.25%, 71.25%, 74.0% and 68.75% respectively as illustrated in table 4.3.

Table 4.3: Number and percentage of respondents by working conditions (n=400)

Working Conditions			Number	Percentage
Work Permit				
Have			288	72.00
Don't have			112	28.00
Length Of Current Job (Years)				
<1			27	6.75
1-3			216	54.00
4-7			117	29.25
8-10			32	8.00
≥11			8	2.00
Mean ± SD = 3.586 ± 2.724	Range = 0.1 - 17	Median = 3		
Number of Job Changed Before Getting Current Job				
Never			83	20.75
1-2			201	50.25
3-5			98	24.50
6-10			16	4.00
≥11			2	0.50
Mean ± SD = 2.015 ± 1.992	Range = 0 - 20	Median = 2		
Working Hours Per Day				
≤ 8			215	53.75
9-12			156	39.00
≥13			29	7.25
Mean ± SD = 9.45 ± 2.239	Range = 2 - 18	Median = 8		
Working Days Per Week				
1-5			13	3.25
6			234	58.50
7			153	38.25
Mean ± SD = 6.33 ± 0.654	Range = 1 - 7	Median = 6		
Sound Condition				
Strongly dissatisfied			13	3.25
Dissatisfied			95	23.75
Satisfied			285	71.25
Strongly satisfied			7	1.75
Light Condition				
Strongly dissatisfied			6	1.50
Dissatisfied			32	8.00
Satisfied			339	84.75
Strongly satisfied			23	5.75

Table 4.3: (Continued) Number and percentage of respondents by working conditions (n=400)

Working Conditions	Number	Percentage
Ventilation		
Strongly dissatisfied	6	1.50
Dissatisfied	74	18.50
Satisfied	301	75.25
Strongly satisfied	19	4.75
Smell Condition		
Strongly dissatisfied	7	1.75
Dissatisfied	96	24.00
Satisfied	285	71.25
Strongly satisfied	12	3.00
Working Position		
Strongly dissatisfied	8	2.00
Dissatisfied	85	21.25
Satisfied	296	74.00
Strongly satisfied	11	2.75
Salary		
Strongly dissatisfied	13	3.25
Dissatisfied	82	20.50
Satisfied	275	68.75
Strongly satisfied	30	7.50

4.1.4 Accessibility to Health care services

Among the 141 subjects, 67 people (47.52%) went to private hospital when there were sick. Majority of the subjects were living in a distance less than two kilometers from the health facilities. Seventy-two respondents (51.06%) could get to the health facility in 10 minutes duration, and 92 people (65.25%) answered it was easy to go to the health facility. Difficulty to go to the health facility was fear of police arrest.

Table 4.4: Number and percentage of respondents by nature of accessibility to health care services (n=141)

Nature of Accessibility	Number	Percentage
Health Facility Visited When Sick (Multiple Answers)		
Community Health Center	7	4.96
District Health Center	8	5.67
Private Hospital	67	47.52
Government Hospital	20	14.18
Private Clinic	33	23.40
Drug Store	5	3.55
Non-governmental Organization	43	30.50
Others	0	0.00
Distance to get to health facility		
<2km	88	62.41
2-3km	30	21.28
3-5km	5	3.55
>5km	18	12.77
Time Taken To Get To Health Facility		
10 minutes	72	51.06
20 minutes	35	24.82
30 minutes	7	4.96
>30 minutes	27	19.15
Difficulty To Go To Health Facility		
Very difficult	8	5.67
Difficult	11	7.80
Easy	92	65.25
Very easy	30	21.28
Opinion On Opening Hour		
Very convenient	19	13.50
Convenient	120	85.10
Inconvenient	1	0.70
Very inconvenient	1	0.70

Opening hour of the health facility was found to be convenient by 85.1% of the respondents. A large number of respondents (37.59%) had experience waiting time in the health facility before they could meet the health service provider for 10 minutes, and 55.32% of them were satisfied with the waiting time.

Largest groups of the subjects answered "most of the time" regarding the questions on crowdedness of the health facility (41.84%), being welcomed when they arrived to health facility (46.81%), having a chance to talk about their disease (43.26%), availability of the drug at the health facility (43.97%) and convenience when buying drug at the health facility (46.81%). Reasons for being not convenient to buy drugs was that drugs were not sold without seeing doctor, long waiting time to buy drugs and language problem. Approximately one-third of the subjects (65.96%) were satisfied with the quality of care they received from the health facility. Reasons for dissatisfaction of the quality of care included being asked for insurance before giving treatment, having a short time to talk about disease, feeling not relieved after taking the prescribed drug, giving paracetamol for most of the sickness and language problem.

When looking at the health insurance status, among the 141 respondents, most of the respondents (83.69%) had health insurance and had the card with them. Those of the respondents who did not have health insurance sought treatment from nearby drug store, private clinic, and NGO clinic. Consultant fees in the health facility and drug prices were considered "not expensive" by most of the subjects, 85.82% and 94.33% respectively. Nearly eighty per cent of the subjects (79.43%) reported that there was privacy in the examination room of the health facility and could not be seen from outside as illustrated in table 4.4.

Table 4.4: (Continued) Number and percentage of respondents by nature of accessibility to health care services (n=141)

Nature of Accessibility To Health Services	Number	Percentage
Waiting Time to Meet Health Service Provider		
10 minutes	53	37.59
20 minutes	26	18.44
30 minutes	15	10.64
>30 minutes	47	33.33
Opinion on Waiting Time		
Strongly satisfied	18	12.77
Satisfied	78	55.32
Dissatisfied	39	27.66
Strongly dissatisfied	6	4.26
Was The Health Facility Crowded?		
All of the time	42	29.79
Most of the time	59	41.84
Some of the time	12	8.51
A little of the time	26	18.44
None of the time	2	1.42
Were you Welcomed?		
All of the time	52	36.88
Most of the time	66	46.81
Some of the time	12	8.51
A little of the time	11	7.80
None of the time	0	0.00
Did You Have Chance To Talk About Your Disease?		
All of the time	54	38.30
Most of the time	61	43.26
Some of the time	12	8.51
A little of the time	12	8.51
None of the time	2	1.42
Is The Drug Available At The Health Facility?		
All of the time	71	50.35
Most of the time	62	43.97
Some of the time	3	2.13
A little of the time	4	2.84
None of the time	1	0.71

Table 4.4: (Continued) Number and percentage of respondents by nature of accessibility to health care services (n=141)

Nature of Accessibility To Health Services	Number	Percentage
Convenient When Buying Drug		
All of the time	61	43.26
Most of the time	66	46.81
Some of the time	2	1.42
A little of the time	5	3.55
None of the time	7	4.96
Satisfaction On Quality Of Care		
Strongly satisfied	33	23.40
Satisfied	93	65.96
Dissatisfied	15	10.64
Strongly dissatisfied	0	0.00
Health Insurance		
Have and keep themselves	116	83.69
Don't Have	25	16.31
Opinion On Consultant Fees		
Expensive	20	14.18
Not Expensive	121	85.82
Opinion On Drug Price		
Expensive	8	5.67
Not Expensive	133	94.33
Privacy Of Physical Examination Room		
Have	112	79.43
Don't have	29	20.57

4.1.5 Health-related Quality of Life of Adult Myanmar Migrant Workers

Most of the respondents had a moderate level of quality of life (94.0%), followed by low (3.25%) and high (2.75%) levels of quality of life, respectively. When considering each domain of quality of life, it was discovered that the adult Myanmar migrant workers had a high quality of life in physical health domain (27.25%), psychological health domain (4.0%), social relationships domain (32.25%), and environment domain (9.5%), as illustrated in table 4.5.

Detailed responses of the 26 items of WHOQOL-BREF were illustrated in the table E in the appendix section. More than one half (59.0%) of the subjects indicated that their quality of life was “neither poor nor good”. Similarly, more than one half (54.75%) of the subjects reported that they were "satisfied” on their health status.

Largest groups of the respondents answered that pain prevented "a little" from doing what they needed to do (53.0%), "no" medical treatment was needed to function in their daily life (57.0%), enjoyed life for "a moderate amount" (67.0%), felt their life meaningful for "a moderate amount" (50.5%). could concentrate for "a moderate amount" (48.25%), felt "a moderate amount" of safety in their daily life (43.5%) and 55.75% considered their physical environment healthy for "a moderate amount".

Nearly half of the respondents "mostly" had enough energy for everyday life (42.75%). Largest groups of the respondents reported "moderately" in acceptance of their bodily appearance (54.75%), having enough money to meet their needs (46.0%), and availability of information they needed in day-to-day life (52.5%). Over one third of the respondents (34.5%) reported they had "no" opportunity for leisure activities. Nearly half of the respondents (44.5%) considered their ability to get around as "good".

Table 4.5: Number and percentage of respondents by level of health-related quality of life measured by WHOQOL-BREF (n=400)

Quality of Life Scores	Number	Percentage
Level of Total QoL		
Low	13	3.25
Moderate	376	94.00
High	11	2.75
Mean ± SD = 78.90 ± 9.72	Range = 44 - 103	Median = 79
Overall Assessment And General Health Facet		
Low	7	1.75
Moderate	284	71.00
High	109	27.25
Mean ± SD = 6.81 ± 1.09	Range = 3 - 10	Median = 7
Physical Health Domain		
Low	2	0.50
Moderate	179	44.75
High	219	54.75
Mean ± SD = 26.43 ± 3.12	Range = 12 - 34	Median = 27
Psychological Health Domain		
Low	53	13.25
Moderate	331	82.75
High	16	4.00
Mean ± SD = 18.22 ± 3.02	Range = 7 - 35	Median = 19
Social Relationships Domain		
Low	13	3.25
Moderate	258	64.50
High	129	32.25
Mean ± SD = 10.72 ± 1.61	Range = 3 - 15	Median = 11
Environmental Domain		
Low	52	13.0
Moderate	310	77.5
High	38	9.5
Mean ± SD = 23.54 ± 4.36	Range = 11 - 36	Median = 24

Nearly half of the respondents (49.25%) were "neither satisfied nor dissatisfied" with the support they get from their friends. Largest groups of respondents reported that they were "satisfied" in the other items. Nearly half of the respondents (46.25%) reported that they "seldom" had negative feelings in the past four weeks.

4.1.6 Relationship with HRQoL Scores

4.1.6.1 Socio-demographic Characteristics and HRQoL

Table 4.6 displays the ‘mean score of total quality of life' by socio-demographic characteristics. One-way ANOVA test was used to analyze the relationship between age groups, ethnicity, marital status, number of family member living in Thailand, duration of stay in Thailand, Thai language skills, education level, monthly income, monthly expense, fraction of monthly income sent back to Myanmar, types of occupation and health related quality of life.

Statistical significant difference was found between marital status and health related quality of life ($p=0.017$), and the difference occurred between married group and the remaining two groups. Analysis showed significant between the number of family member living in Thailand and quality of life score ($p=0.018$). Respondents group having more than two family members was responsible for the difference.

Duration of stay in Thailand was found highly significant ($p<0.001$) and respondents group having duration of stay in Thailand less than 4 years was responsible for the difference. Regarding the Thai language skills, it was also found highly significant ($p<0.001$) and difference occurred in all the three groups.

Table 4.6: Relationship between health-related quality of life score and respondents' characteristics analyzed by One-way ANOVA (n=400)

Variables	N	Mean	SD	p-value	LSD		
Age (Years)				0.183			
≤19	27	76.11	9.92		N/R		
20-29	209	78.66	9.47				
30-39	126	80.18	10.24				
≥40	38	78.03	8.93				
Ethnicity				0.356			
Mon	80	77.44	9.33		N/R		
Dawei	83	80.17	9.53				
Myanmar	188	78.99	10.09				
Karen, Rakhine, Others	49	78.82	9.19				
Marital Status				0.017			
Single	187	78.08	9.70		0.045		
Married	198	80.06	9.20		0.018		
Widow, Divorced, Separated	15	73.93	14.12				
Number of Family Member in Thailand				0.018			
None	45	77.36	9.41				
1-2	192	77.88	9.92		0.01		
>2	163	80.55	9.39				
Duration Of Stay In Thailand (Years)				<0.001			
<4	139	76.02	9.95		0.001		<0.001
4-7.99	130	79.74	9.47				
≥8	131	81.14	9.03				
Thai Language Skills				<0.001			
Cannot communicate	82	74.34	10.74				
Can communicate basically	212	78.74	9.38		<0.001		<0.001
Can speak fluently	106	82.77	7.86		<0.001		
Education				<0.001			
No education	11	87.91	8.36	0.001		<0.001	0.019
Primary	89	78.04	9.78				
Secondary	168	77.22	9.62	0.001		0.030	
Higher	132	80.88	9.24				

Table 4.6: (Continued) Relationship between health-related quality of life score and respondents' characteristics analyzed by One-way ANOVA (n=400)

Variables	N	Mean	SD	p-value	LSD		
Monthly Income (Baht)				<0.001			
<2,000	10	70.30	10.05				
2,000-3,999	50	75.78	12.96		0.022		
4,000-5,999	155	77.34	10.25		<0.001		<0.001
>6,000	185	81.52	7.20	<0.001			
Monthly Expense (Baht)				0.253			
<2,000 B	157	79.69	9.88		N/R		
2,000-3,999 B	202	78.68	9.04				
>4,000 B	41	76.98	12.05				
Fraction Of Monthly Income Sent Back To Myanmar				0.064			
None	66	76.47	9.91		N/R		
1-19%	105	78.49	10.70				
20-39%	128	79.23	9.84				
≥40 %	101	80.51	8.02				
Occupation				0.032			
Seafood processing	232	78.78	8.80				
Fishery	82	77.07	11.20		0.009		
Others (manufacture, agriculture)	86	80.98	10.30				

Considering the education level of respondents, it was found highly significant ($p<0.001$). Respondents with no education group and respondents with higher education groups were responsible for the difference.

When looking at the monthly income, it was also found highly significant ($p<0.001$). Respondents group with income lower than 2,000 baht and higher than 6,000 baht were responsible for the difference. Analysis also showed significant relationship between occupation of the respondents ($p=0.032$). Difference occurred between the respondents working in fishery and respondents working in manufacture, agriculture and others. Analysis showed no significant relationships between age

groups (p=0.183), ethnicity (p=0.356), monthly expense (p=0.253), fraction of monthly income sent back to Myanmar (p=0.064) and health-related quality of life.

Independent t-test was used to analyze the relationships between gender, respondent's sickness within past four weeks, respondent's receive health service, family members' sickness within past four weeks, family members received health service and health related quality of life as shown in table 4.7.

Table 4.7: Relationship between health-related quality of life score and respondents' characteristics analyzed by unpaired t-test

Variables	N	Mean	SD	p-value
Gender (n=400)				0.675
Male	218	79.09	10.16	
Female	182	78.68	9.20	
Respondents' Sickness In The Past Four Weeks (n=400)				<0.001
Sick	147	76.38	8.84	
Not sick	253	80.37	9.93	
Respondents Received Health Care Service (n=147)				0.001
Yes	120	77.48	8.27	
No	27	71.48	9.75	
Family Members Sickness In The Past Four Weeks (n=355)				0.629
Sick	51	78.49	8.92	
Not sick	304	79.20	9.90	
Family Members Received Health Service (n=51)				0.361
Yes	45	78.91	9.33	
No	6	75.33	3.93	

Respondents who did not have sickness within past four weeks had higher quality of life score than respondents who were sick (p<0.001). Among the respondents who were sick (n=147), those who received health service had higher quality of life score than respondents who did not received health service (p=0.001).

Analysis showed no significant relationships between gender (p=0.675), respondents' family member sickness within past four weeks (p=0.629), family members received health service (p=0.361) and health related quality of life.

4.1.6.2 Living conditions and HRQoL

One-way ANOVA test was used to assess the relationship between types of housing of respondents and health related quality of life. Analysis showed highly significant difference (p<0.001). The difference was contributed by the respondents group who rented a room or an apartment shown in table 4.8.

Table 4.8: Relationship between health-related quality of life score and respondents' living conditions analyzed by One-way ANOVA (n=400)

Variables	N	Mean	SD	p-value	LSD	
Type of House				<0.001		
Lodging in work compound	16	89.50	7.41		<0.001	0.013
Rent	366	78.32	9.42			
Others	18	81.39	12.09			

Independent t-test was used to analyze the relationship between perception of crowdedness of the room and health related quality of life. There was no statistically significant relationship (p=0.587) shown in table 4.9.

Table 4.9: Relationship between health-related quality of life score and respondents' living conditions analyzed by unpaired t-test (n=400)

Variables	N	Mean	SD	p-value
Perception on House Crowdedness				0.587
Crowded	56	78.25	9.65	
Not Crowded	344	79.01	9.74	

4.1.6.3 Working conditions and HRQoL

In the table 4.10, one-way ANOVA test was used to assess the relationships between number of jobs changed before getting the current job, number of working days per week and health related quality of life. Analysis showed no significant relationships between number of jobs changed before getting the current job (p=0.065), number of working days per week (p=0.266) and health related quality of life.

Table 4.10: Relationship between health-related quality of life score and respondents' working conditions analyzed by One-way ANOVA (n=400)

Variables	N	Mean	SD	p-value	LSD
Number of Job Changed				0.065	
Never	83	76.73	10.74		N/R
1-2	201	79.67	9.15		
≥ 3	116	79.13	9.79		
Working Days Per Week				0.266	
1-5	13	82.85	7.76		N/R
6	234	79.04	8.94		
7	153	78.37	10.92		

Independent t-test was used to analyze the relationships between work permit status, length of current job, working hours per day, and items regarding satisfaction on the work place shown in table 4.11. Analysis showed respondents having work permit (p<0.001), length of current job equal and more than 4 years (p<0.001) have higher quality of life. There was no significant difference between respondents with

different working hours per day (p=0.905). It was found that respondents who were satisfied with their working conditions had higher mean score of quality of life with the following s: sound condition (p<0.001), light condition (p=0.022), ventilation (p<0.001), smell condition (p<0.001), working position (p<0.001) and salary (p<0.001).

Table 4.11: Relationship between health-related quality of life score and respondents' working conditions analyzed by unpaired t-test (n=400)

Variables	N	Mean	SD	p-value
Work permit				<0.001
Have	288	80.80	8.36	
Don't have	112	74.03	11.21	
Length Of Current Job (Years)				<0.001
<3.99	243	77.11	9.52	
≥4	157	81.68	9.40	
Working Hours Per Day				0.905
≤ 8	215	78.96	10.70	
> 8	185	78.84	8.47	
Sound Condition				<0.001
Dissatisfied	108	74.62	11.67	
Satisfied	292	80.49	8.38	
Light Condition				0.022
Dissatisfied	38	74.53	12.16	
Satisfied	362	79.36	9.33	
Ventilation				<0.001
Dissatisfied	80	74.20	11.32	
Satisfied	320	80.08	8.99	
Smell Condition				<0.001
Dissatisfied	103	74.52	10.47	
Satisfied	297	80.42	8.98	
Working Position				<0.001
Dissatisfied	93	75.68	9.22	
Satisfied	307	79.88	9.67	
Salary				<0.001
Dissatisfied	95	73.32	11.41	
Satisfied	305	80.65	8.43	

4.1.6.4 Accessibility and HRQoL

Relationship between respondents' living distance to the health facility and health related quality of life was analyzed by one-way ANOVA. No statistically significant difference was found between the variables (p=0.803).

Table 4.12: Relationship between health-related quality of life score and nature of accessibility to the health care services analyzed by One-way ANOVA (n=141)

Variables	N	Mean	SD	p-value	LSD
Distance to get to health facility				0.803	
<2km	88	77.26	8.43		N/R
2-3km	30	76.77	8.74		
3-5km	5	78.60	6.07		
>5km	18	79.06	8.14		

Table 4.13: Relationship between health-related quality of life score and nature of accessibility to the health care services analyzed by unpaired t-test (n=141)

Variables	N	Mean	SD	p-value
Time Taken To Get To Health Facility				0.424
≤30 minutes	114	77.16	8.42	
>30 minutes	27	78.59	8.06	
Difficulty To Go To Health Facility				0.002
Difficult	19	71.89	10.10	
Easy	122	78.30	7.73	
Opinion On Opening Hour				0.874
Convenient	139	77.45	8.32	
Inconvenient	2	76.50	13.44	
Waiting Time				0.319
≤30 minutes	94	76.94	8.90	
>30 minutes	47	78.43	7.09	
Opinion on Waiting Time				0.248
Satisfied	96	76.88	8.98	
Dissatisfied	45	78.62	6.72	
Was The Health Facility Crowded?				0.003
Some of the time	113	78.46	8.05	
Most of the time	28	73.29	8.34	
Were you Welcomed?				0.221
Some of the time	23	75.48	7.29	
Most of the time	118	77.81	8.51	

Table 4.13: (Continued) Relationship between health-related quality of life score and nature of accessibility to the health care services analyzed by unpaired t-test (n=141)

Variables	N	Mean	SD	p-value
Did You Have Chance To Talk About Your Disease?				0.871
Some of the time	26	77.19	8.13	
Most of the time	115	77.49	8.42	
Is The Drug Available At The Health Facility				0.679
Some of the time	8	78.62	8.93	
Most of the time	133	77.36	8.34	
Convenient When Buying Drug				0.592
Some of the time	14	78.57	8.02	
Most of the time	127	77.31	8.40	
Satisfaction On Quality Of Care				0.064
Satisfied	126	77.88	8.32	
Dissatisfied	15	73.67	7.84	
Health Insurance				<0.001
Have and keep themselves	116	78.69	7.55	
Don't Have	25	71.60	9.48	
Opinion On Consultant Fees				0.362
Expensive	20	75.85	8.43	
Not Expensive	121	77.69	8.33	
Opinion On Drug Price				0.681
Expensive	8	76.25	11.91	
Not Expensive	133	77.50	8.14	
Privacy Of Physical Examination Room				0.853
Have	112	77.37	8.10	
Don't have	29	77.69	9.38	

As described in the table 4.13, when analyzed by independent t-test, respondents who considered easy to go to the health facility had higher mean score of quality of life (p=0.002) than those considered difficulty to go to the health facility. Respondents who gave opinion that the health facility was crowded "some of the time" had higher mean score of quality of life (p=0.003) than those considered the health facility was not crowded. Respondents who had health insurance card had

higher mean score of quality of life than those did not have with highly significant p-value ($p<0.001$).

The data in Table 4.13 shows that there was no statistically significant relationship ($p>0.05$) between time taken to get to the health facility, opinion on the opening hour, waiting time before respondents could see the health provider, opinion on waiting time, being welcomed when they arrived the health facility, having a chance to talk about their disease to the health provider, availability of drug and convenience of buying drug in the health facility and opinion on the quality of care when analyzed by independent t-test.

Analysis also showed there was no significant difference between the respondents' opinion on the consultant fees and drug price at the health facility, and opinion on having privacy at the examination room of the health facility.

4.2 Qualitative results

4.2.1 Introduction

The purpose of in-depth interviews was to explore and describe the living conditions, working conditions, accessibility to health care services and health-related quality of life of adult Myanmar migrant workers in Mahachai Sub-district, Samut Sakhon Province, Thailand from the perspectives of the health care service providers.

The researcher conducted the in-depth interviews with an assistant researcher to record and note-taking. Two health care service providers (one NGO physician and one drug store keeper) were chosen purposively for the in-depth interviews. The NGO physician had 5 years of working duration in Samut Sakhon Province and the nature

of work included providing basic treatment, referral, mobile clinic, and health education on HIV, reproductive Health, and sexually transmitted infection. In the case of drug store keeper, the interviewee was also the migrant worker and had been living in Samut Sakhon Province for 10 years. The nature of work included selling a variety of medicines – Burmese traditional medicines and Western medicines.

During the interviews, audio-recording (deleted after data analysis) in Burmese language had been transcribed in Burmese language and then it was translated into English. Tabulation, summarizing and drawing conclusion were done.

4.2.2 Findings

1. What is the most common illness in the community and why?

   Respiratory tract infection such as common cold and cough was the commonest illness in the community because of crowdedness and poor ventilation in the living places.

2. Opinion towards adult Myanmar migrant workers' current living conditions and what is the situation you wish to see?

   Living conditions of the migrant workers were generally poor. There were poor lighting condition because some of the rooms had no window. Another reason was the migrants used less electricity with an attempt to reduce electric bills. Migrants mostly lived 5-10 persons in a small room. Condition was very crowded – however they usually had different working times, therefore it was still

possible to stay. The apartment rent price in Talat Kung ranged from 2,000-3,000 Baht per month, and outside Talat Kung ranged from 1,000-1,500Baht per month.

Living conditions might be better if the room prices are cheaper or migrants' income are increased, or if provided by employer. It is preferable to stay 2-3 person/room, and room standards should facilitate healthy conditions.

3. Opinion towards adult Myanmar migrant workers' current working conditions and what is the situation you wish to see?

Migrants had long work durations in a day. Working hours were usually more than 8 hours a day. Usually they got holiday only once a week. When there were more shrimps, they used to work harder and longer durations because some earned money per kilogram. Salary was higher if migrant had work permit. However, most migrants did not have work permit.

Workers were given 30 minutes of lunch break. Toilet usage time for the workers was also restricted, therefore problems related to urinary tract were present especially for the female workers. Because of the long hours of standing works, the workers suffered from back pain and muscle pain. Regarding salary, bigger industries gave over-time payment, however, migrant workers faced longer work time without overtime payment in the small industries. Sound, ventilation, light conditions were usually good.

Big industries may have equal rights for the workers, but there were discrimination to Myanmar workers in some small industries. Adult Myanmar migrant workers usually worked in seafood processing industry and some in manufacturing industry. Workers were likely to be fired from job if he/she was

absent from job for 3 days. If they could show doctor's signature, they don't lose jobs, however, could not earn money for that day. Hospitals used to give one day leave document, and NGO clinic used to give 1-3 days depending on the condition of the illness.

Working conditions might be better if they meet the labor rights.

4. Opinion towards adult Myanmar migrant workers' current HRQoL and what is the situation you wish to see?

(1) Physical health

Adult Myanmar migrant workers may have low QoL in physical domain because many of them suffered from muscle pain and they didn't have leisure activity.

(2) Psychological

For psychological domain, migrants who didn't have work permit might be stressed and unhappy due to fear of police arrest. While those of the migrants who had work permit, could still be unhappy because they didn't have as much freedom of mobility as in Myanmar. Migrant workers who got trafficked into Thailand experienced a lot of trouble. Regardless of the work permit status, all the workers had a considerable amount of stress from the employer or their supervisors, "wunna".

(3) Social relationships

For the social relationships domain, the migrant workers could enjoy wedding ceremony. There were occasional running contests especially in Talat Kung community. They could go to the monastery and received blessings from the

monks in particular Buddhist events. It was found that the migrant workers usually stayed with people from same village/family with whom they could talk freely and share their stress. It was also found that a few migrant workers enjoyed gambling.

(4) Environment

In the environment – the migrant workers found easier to get around when their duration of stay became longer. Usually the migrant workers rent a car to go to the monastery.

The HRQoL might be improved if the employers help the migrant workers. New registration cards for the new comers should be considered.

5. Opinion towards adult Myanmar migrant workers' current accessibility to health care services and what is the situation you wish to see?

(1) Accessibility to Essential drugs

Essential drugs were available in the drug stores, private clinics, and hospitals, especially the hospitals had all the essential drugs according to 'health for all' policy. The fees were 30 Baht for the registered migrant workers. For the unregistered workers, the drug prices might be expensive. In the government hospitals, migrant workers could get the treatment first, and then pay the treatment fees by installment. The installment might be repaid until it covered all the fees or sometimes, the hospital authorities let the patient free of debt after receiving 2-3 times of the installment. For major surgical operations, the patients might be referred to the hospitals in Bangkok. The prices were not expensive if the migrant

was registered, however, if the migrant was unregistered, the prices were usually expensive. Fear of police arrest and fees for the transport might be the problem for both cases. Some migrant workers preferred to go back to Myanmar to get treatment which was expected to be cheaper, and also able to get the psychological support from their family.

For minor health problems, migrant workers took the medicine from the drug stores nearby or asked someone who can speak Thai to buy the medicine for them. Sometimes they received treatment from traditional healers or quacks.

(2) Accessibility to Reproductive health

Regarding to reproductive health, the hospitals, the clinics and NGO (Raks Thai) have been offering health education programs for family planning, and distributed condoms for free. Some female migrant workers took oral contraceptives pills for birth spacing (bought by themselves or order with someone). Some took depot injection (not convenient because can't go outside to clinic). Traditional birth attendants didn’t do family planning because they wanted to do more delivery.

(3) Accessibility to Occupational health

When looked at the occupational health, there had not been any training for the migrant workers regarding the prevention of occupation health problems and no co-operation from the employers for such programs.

For the treatment of health problems, some big industries had a clinic in their working place with a nurse. If there had been an injury, migrant workers could get money because of NGO working for this issue.

For rehabilitation – compensation and sick leave depend on the employer, if the employer was kind enough, the worker could get some compensation and sick leave. However, usually employers didn't care about the treatment and rehabilitation.

(4) Accessibility to Emergency health care and referral system

For emergency cases, the migrant workers could see a duty doctor in the hospitals any time, and for major cases, they could be transferred to the hospitals in Bangkok also.

The conditions might be better if the migrant workers have health insurance cards and knowledge to avoid accidents and injury. Co-operation between migrant workers and NGOs for both Myanmar nationals and Thai people would prove beneficial.

6. Compare to the past one year, what are the positive and negative impacts on living and working conditions, HRQoL, and accessibility to health care services of adult Myanmar migrants workers, and why?

Living costs become more expensive, while the living conditions (ventilation, lighting and room crowdedness) are the same. For the working conditions, because of the economic crisis, a policy was made to enable more employments for Thai people. Therefore job opportunities for the migrant workers are scarce this year. There is a larger number of unregistered people. Health-related quality of life status might be similar or less because of smaller job opportunity and

income. For the accessibility to health care services, there is an increased number of migrant workers without health insurance, because some migrant workers prefer to take risk to save money without getting health insurance card. They consider themselves healthy and no need to buy insurance. A new TB project from Global Fund started this year and is giving free TB treatments for the migrant workers. The services from the NGO are the same as last year.

CHAPTER V

DISCUSSION

5.1 Discussion

The research on "Nature of accessibility to health care services and health-related quality of life (HRQoL) among adult Myanmar migrant workers in Mahachai sub-district, Samut Sakhon province, Thailand" was a cross-sectional study applying both quantitative and qualitative research methods. Health-related quality of life was assessed by using the WHOQOL-BREF. For the discussion, some comparisons were made with the studies which used SF 36 and SF 12. A study in Turkey reported that the concurrent validity of the health-related quality of life scales were tested by comparing related domains of WHOQOL-BREF and SF-36, and was found satisfactory (Dündar et al., 2002). Relationships between the independent variables and HRQoL was analyzed by using one-way ANOVA and independent t-test.

5.1.1 Health-related Quality of Life of Adult Myanmar migrant workers

Among the 400 adult Myanmar migrant workers in Mahachai Sub-district, Samut Sakhon province, Thailand**,** 94.0% had a moderate level of health-related quality of life, followed by low (3.25%) and high (2.75%) levels of health-related quality of life respectively. A study in Phangnga Province, Thailand, using Short Form-12 to assess the health-related quality of life among Myanmar migrant workers showed that one-third of the migrants' self-perceived health status was good (Ti, 2007). Another study that used Short Form-36 to assess the QoL of migrant labours (from Myanmar, Lao and Cambodia) in Samut Sakhon revealed that migrant labours had high satisfactory level in physical and mental components of QoL, 49.5%

and 50.2% respectively (Nishihara, 2007). These studies used other scales rather than WHOQOL-BREF to measure QoL and all were oriented to measure specific circumstances such as physical functioning, role limitations due to physical health problems, bodily pain, social functioning, general mental health (covering psychological distress and well-being, role limitation due to emotional problems, vitality, energy or fatigue, general health perceptions). Therefore, it may not be appropriate to compare their results with the findings in this present study.

Nevertheless, in general, it can be said that respondents from current study had relatively lower QoL than the previous studies as only 2.75% of them perceived their QoL as high. This may be a consequence of the frequent police arrest cases in the Samut Sakhon Province during the data collection period. Quality of life also depends on working conditions which varies mostly on supply of shrimps for the respondents from seafood industry and fishery, which can be regarded as "seasonal variation". However, many other factors may be responsible as health-related quality of life is complex by its nature, comprising of objective and subjective components. Health by itself is also difficult to measure as it comprises of physical, mental and social well-being. In this study, the researcher targeted only adult Myanmar migrant workers and most were found to be registered (72%). However, there are many sub-ethnic groups in Myanmar and the quality of life in the subgroups may be different and difficult to measure.

5.1.2 Socio-demographic characteristics and HRQoL

This study revealed that the mean age of respondents was 28.83 years. And 59% were less than 30 years. This agrees with the findings of a study done in 2007 which reported that two-thirds of the migrants in Thailand were aged less than

30 years old (Bryant & Rukumnuaykit, 2007). There was no statistically ($p>0.05$) significant relationship between age and HRQoL. A study in China by Zhang et al. (2009) also revealed that age had no association with health-related quality of life by using WHOQOL-BREF to assess the quality of life (QoL) among rural-to-urban migrants in China (Zhang, Li, Fang, & Xiong, 2009).

In the current research, the percentage of males and females were 54.5% and 45.5% respectively. The percentage of females was similar to the findings from a study done in 2007 which reported that in 2004, 45% of registered migrant workers in Thailand were females (Bryant & Rukumnuaykit, 2007). When looked at the relationship between gender and HRQoL, although males had higher quality of life scores, there was no statistically significant relationship ($p>0.05$) between them. It is contrast to the report of Zhang et al. in 2009 (Zhang, Li, Fang, & Xiong, 2009).

SIREN field report in 2007 stated that among the Myanmar migrant workers in Samut Sakhon province, 50% were of Mon ethnicity, 30% Myanmar, 10% Karen and 10% others (SIREN, 2007). In this study, majority were Myanmar (47%), followed by Dawei and Mon groups. There was no statistically ($p>0.05$) significant relationship between ethnicity and HRQoL. One study in Phangnga Province of Thailand using SF12 to explore the factors that influenced health-related quality of life among Myanmar migrant workers also reported there was no association between ethnicity and quality of life (Ti, 2007).

Among the respondents, 49.5% were married, followed by 46.75% who were single. Bryant (2007) stated that in 2004, married people constitutes largest group among the Migrant workers in Thailand (Bryant & Rukumnuaykit, 2007). There was statistically ($p<0.05$) significant relationship between marital status and HRQoL.

Married respondents had higher QoL than other groups. It is accordance with the report of Zhang in 2009 (Zhang, Li, Fang, & Xiong, 2009).

Findings from the in-depth interviews with health service providers pointed out that Myanmar migrant workers used to live in groups with the relatives or with people from the same village or same city from Myanmar. There was statistically significant relationship ($p<0.05$) between number of family members living in Thailand and HRQoL. It is contrast to the report of Sai Ti in 2007 (Ti, 2007). Having family members in Thailand seemed to reduce stress and hence the respondents had higher quality of life.

The respondents had mean duration of stay in Thailand for 6.157 years. When analyzed, there was statistically ($p<0.05$) significant relationship between length of stay in Thailand and HRQoL, which is contrast to the report of Zhang in 2009 (Zhang, Li, Fang, & Xiong, 2009). Current research suggests that the longer the duration of stay in Thailand, the respondents tend to be better adjusted to life in Thailand, and have higher quality of life scores. This may be also true for the respondents' Thai language skills. In respect of Thai language skills, there was statistically ($p<0.05$) significant relationship between Thai language skills and HRQoL, with respondents who were fluent in Thai had higher quality of life than other groups. The finding is contrast to the report of Sai Ti in 2007 (Ti, 2007).

There was statistically ($p<0.05$) significant relationship between education level and HRQoL. Respondents with higher education level experienced higher QoL. It is accordance with the report of Zhang in 2009 (Zhang, Li, Fang, & Xiong, 2009). There was statistically ($p<0.05$) significant relationship between monthly income and HRQoL. Respondents with higher income experienced higher QoL. It is accordance

with the report of Zhang in 2009 (Zhang, Li, Fang, & Xiong, 2009). Higher income enables the migrants to meet their needs and leads to have more satisfaction in life.

Global monitoring report 2008 reported that in countries without a developed social insurance system and efficient domestic labor market, labor migration and remittances often play an important role in addressing poverty. By financing primary consumption, remittances help alleviate extreme poverty, in particular in the countries where migrants represent the lower part of income distribution (The World Bank, 2008). It was assumed that poverty-reducing effects of remittances will increase the quality of life of migrant workers. However, in this study, there was no statistically ($p>0.05$) significant relationship between proportion of monthly income sent back to Myanmar and HRQoL of the respondents. Although this failed to prove relationship between remittance and HRQoL of respondents, labor migration in greater Mekong Sub-region (2006) reported that many families of migrants rely on remittances to maintain their quality of life (Labor Migration in GMS, 2006).

Results showed that majority of respondents were working in seafood processing industry. Fish processing and Fishing are major employers of migrants (Martin, 2007). There was statistically ($p<0.05$) significant relationship between occupation and HRQoL. Workers in the manufacture industry and agricultures had higher quality of life scores. Workers from agriculture may have higher quality of life because their environment is fresh and clean and have stable working hours, compared to seafood workers whose working hours depend on availability of the shrimps and fish. The study from Phangnga Province, Thailand stated that there was no relationship between type of occupation and HRQoL (Ti, 2007).

In the current study, 36.75% of the respondents reported that they experienced sickness within past four weeks. When analyzed further, there was statistically ($p<0.05$) significant relationship between respondents' sickness within past four weeks and HRQoL. Respondents who reported no sickness within past four weeks had higher mean score of quality of life. One study on quality of life of migrant labours in Samut Sakhon Province, Thailand using SF 36 also reported the relationship between history of chronic illness and quality of life. (Nishihara, 2007).

Among the respondents who experienced (n=147), 120 of them (81.63%) had received health care services. When analyzed by t-test, receiving health care services had statistically significant ($p<0.05$) relationship with HRQoL. Respondents who received health care services were found to be more satisfied with their health-related quality of life.

5.1.3 Living conditions and HRQoL

There was statistically ($p<0.05$) significant relationship between type of house and HRQoL. It is accordance with the report of Mika Nishihara, in 2007 (Nishihara, 2007). Migrants who lived in lodging in work compound were found to have higher quality of life. It seems that their living place gave them more sense of security and more convenient for working and living and hence higher quality of life.

Marans in 2003 stated that the degree to which a person feels crowded at home is expected to be related to the number of people in his household per room which in turn is expected to contribute to quality of life (Marans, 2003). Report for quality of life of Thai workers in 2008 stated that workers faced environmental problems around their living quarters **(**Kanchanachitra et al., 2008). In the current study, 14% of the respondents

perceived their living place was crowded. Although the respondents who considered their living place as not crowded had slightly higher quality of life, when analyzed by t-test, there was no statistically ($p>0.05$) significant relationship between perception on crowdedness of house and HRQoL.

5.1.4 Working conditions and HRQoL

Work permit status is the very important status for migrant workers. In this study, among the 400 respondents 72% had work permit. This figure is high for the migrant population. This is because police arrests were frequent during the data collection period. When researcher approached the community for data collection, larger number of respondents with work permit was included in the interviews. There was statistically ($p<0.05$) significant relationship between having work permit and HRQoL. It is accordance with the report of Sai Ti in 2007 and Mika Nishihara, in 2007 (Nishihara, 2007; Ti, 2007).

Length of current job and number of job changed, in other words, items of job security are related to quality of life as mentioned in "The World in 2005", Economist Intelligence Unit's Quality-of-life Index (International Labour Organization, 2005). There was statistically ($p<0.05$) significant relationship between length of current job which is in accordance with the report of Mika Nishihara in 2007 (Nishihara, 2007). However, no significant relationship was found between number of job changed in Thailand before getting current job and HRQoL.

It is increasingly recognized that overwork and the resulting imbalance between work and private life has negative effects on health and well-being (World Health Organization, 2008a). Long working hours make it somewhat difficult for migrants to access healthcare facilities (Khruemanee, 2007). However, there was

statistically ($p>0.05$) significant relationship between working hours per day and HRQoL. It is contrast to the report of Mika Nishihara in 2007 (Nishihara, 2007). There was no statistically ($p>0.05$) significant relationship between working days per week and HRQoL. It is accordance with the report of Sai Ti in 2007 (Ti, 2007).

The World Health Organization stated that there is the increasing number of migrant workers internationally. While many are in high skilled work, large numbers of migrants, particularly illegal migrants, experience unprotected and poor conditions (World Health Organization, 2008a). Migrant workers' perception on working conditions such as sound condition, light condition, ventilation, smell condition, working position and salary were assessed and it was found that all the variables had statistically ($p<0.05$) significant relationship with HRQoL, supporting the findings of Mika Nishihara in 2007 (Nishihara, 2007).

5.1.5 Accessibility to health care services and HRQoL

Studies on accessibility to health care services and health-related quality of life of migrant workers are very scarce and rarely assessed. The long distance to get to designated health care services makes it somewhat difficult for migrants to access healthcare facilities (Khruemanee, 2007). There was no statistically ($p>0.05$) significant relationship between distance to get to health facility and HRQoL. There was no statistically ($p>0.05$) significant relationship between waiting time to meet the health service provider from registration, costs of consultant fees and drug price and HRQoL.

In the current study, opinion on difficulty to go to the health facility and crowdedness of health facility had statistically significant ($p<0.05$) relationship

with HRQoL. Having health insurance is very important factor for the access to health care services of migrant workers. Some employers seize migrants' permits and insurance card, and return only a photocopy (Khruemanee, 2007). In the current study, it was found that among the 141 respondents, 116 respondents had health insurance card and all of them had the cards with them. The analysis by independent t-test revealed that health insurance status had highly significant relationship with HRQoL. Findings from in-depth interview pointed out that some of the adult Myanmar migrant workers were saving the money while taking the risk of not having health insurance status. The increasing number of migrant workers in Thailand countered by the decreasing numbers registering is of concern (PHAMIT, 2009). This is not uncommon in the world. People who migrate from their country of birth to another country, or even another part of the world, are generally healthier than those who do not. However, this "healthy migrant effect" tends to wear off with time (Williams, 1993). If the migrant workers become sick, they will have to pay out-of-pocket, which will lead them into trouble as the medical expenses are generally expensive and unpredictable.

5.2 Conclusion

This study was done with the expectation to provide the baseline data on the accessibility to health care services and health-related quality of life using WHOQOL-BREF among adult Myanmar migrant workers in Mahachai Sub-district, Samut Sakhon Province, Thailand.

Among the 400 adult Myanmar migrant workers in Mahachai Sub-district, Samut Sakhon province, Thailand**,** 94.0% had a moderate level of health-related quality of life, followed by low (3.25%) and high (2.75%) levels of health-related

quality of life respectively. When analyzed by one-way ANOVA, with statistical significance at the level of $p<0.05$, respondents' marital status, number of family member living in Thailand, duration of stay in Thailand, Thai language skills, education level, monthly income, types of occupation and types of house showed significant associations with health-related quality of life. When analyzed by unpaired t-test, with statistical significance at the level of $p<0.05$, respondents' sickness within past four weeks, respondents' receipt of health service, work permit status, length of time in current job, satisfaction on the work (sound, light, ventilation, smell, work position and salary), opinion on difficulty to go to the health facility, crowdedness of the health facility, and health insurance status showed significant associations with health-related quality of life.

Overall findings indicated that the migrant workers were on the horned dilemma while searching for better quality of life. Adult Myanmar migrant workers came to Thailand because of poor living conditions and poor working conditions in Myanmar. However, they still found themselves in the same situation in Thailand also as being migrant workers. Therefore, when assessed by WHOQOL-BREF, only 2.75% had high quality of life and almost all of the respondents (94.0%) had moderate level of quality of life. Quality of life of migrant workers has great impact on the host country. Non-communicable diseases, communicable diseases and emerging diseases of the migrants can affect Thai nationals also. To control some diseases, quality of life of the stakeholders provides supplement information for the formulation of health policy and making resource allocation decisions. To improve quality of life of migrants, both governments of the source country and host country should incorporate the migrant workers' health in national and sectoral policies for sustainable

development, poverty reduction, employment, trade, environmental protection, and education, which will bring the win-win situation, i.e., keeping both migrants and host nationals safe.

5.3 Recommendations

To improve the health-related quality of life of adult Myanmar migrant workers, the following recommendations are presented:

Local community-based organizations should be developed for migrants, managed by migrants, and serve migrants in order to improve their quality of life and protect their reproductive health and occupational health. Organizations for migrants could also include representatives of migrants, employers, government and other third parties for improved partnership, co-operation and efficiency.

Employers should use surveys to measure the level of quality of life of the people under their employment. The level of quality of life of employees has an effect on the productivity and business's prosperity.

The government should incorporate the migrant workers' health in national and sectoral policies for sustainable development, poverty reduction, employment, trade, environmental protection, and education.

Waiting time from registration until the respondents meet the health care service provider is the barrier to access health care services and it should be lowered, and then will reduce direct cost and indirect cost for the migrant workers.

Although the respondents in this study came from the same country of origin, the social contexts of diverse minorities can play a key role in assessing health-related

quality of life. There is a need to do this kind of study in different groups and different cultures.

Longitudinal studies to explore the quality of life of before and after migration, or cross-sectional studies which compare quality of life of adult Myanmar workers in Myanmar and adult Myanmar migrant workers in Thailand should be carried out in the future. Research should focus not only on measuring HRQoL but also on identifying beneficial ways or interventions to improve HRQoL.

Although WHOQOL-BREF instrument was proved suitable to apply on most of the target populations to measure their quality of life status, to apply the WHOQOL-BREF in Myanmar populations, there is also a need to modify the wording of the item on sexual activity to be friendlier for respondents who are single.

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APPENDICES

APPENDIX A

Patient/Participant Information Sheet

(for migrant workers)

Name of the project

Nature of accessibility to health care services and health-related quality of life among adult Myanmar migrant workers in Mahachai Sub-district, Samut Sakhon Province, Thailand

Name of principal investigator……Mr. Tun Linn Thein……

Address…… College of Public Health Sciences, Chulalongkorn University, Institute Building 3, Floor 10th, Soi Chulalongkorn 62, Phyathai Road, Patumwan, Bangkok 10330……

Office telephone…… Home telephone……..

Mobile…..…085-332-5007…… Email address ...tunlinnthein@gmail.com...

To the attention of all research participants:

You are one of the volunteers who are invited to take part in the research "Nature of accessibility to health care services and health-related quality of life among adult Myanmar migrant workers in Mahachai Sub-district, Samut Sakhon Province, Thailand"

1. This research is about "health care services you receive and how you feel about your quality of life"

2. The objectives are:
   2.1 To study the quality of health care services that adult Myanmar migrant workers in Samut Sakhon Province receive
   2,2 To study the health-related quality of life of adult Myanmar migrant workers

3. The research subjects are adult Myanmar migrant workers in Mahachai Sub-district, Samut Sakhon Province, Thailand, aged 18-59 years old and health care service providers (one health personnel/NGO physician and one drug store owner/keeper) who can speak Burmese language fluently and are willing to participate in this research project. You are included in this research because you are one of the adult Myanmar migrants residing in Mahachai Sub-district. Once you accept the invitation to join the research project, you will be explained by the researcher/assistant researcher about the project through this sheet which you can keep one copy for yourself. Upon your voluntary participation, you will be requested to sign on the informed consent form which one copy will be for you.

4. The assistant researchers, preferably migrant workers, have been recruited with the help of the staffs of health centre and the community leaders. They already have proper four hours for discussing issues in the structured face-to-face interview and technique how to approach participants and four hours of field practice under my supervision. Reaching for the research subjects will be done with the help of NGO/community volunteers and assistant researchers who are migrant workers themselves.

5. You will be asked a series of questions in this structured face-to-face interview which covers general information, living conditions, working conditions, accessibility to health care services and health-related quality of life. The interview time will take about 20-30 minutes. The interview would be recorded by MP3 recorder and it will be deleted when the research project is finished. Your information will be kept confidential and the presentation of research result will be in an overall picture only.

6. You will have no risks when take part in this project.

7. Your participation in this research project is voluntary and you have the right to refuse this participation or to withdraw at any given time with no harm on your benefit.

8. In case you have any inquiry or need further information, please contact the research at all time. Should the researcher have any additional information which may benefit or may harm regarding the research project, the researcher will inform you immediately so that the research subjects may review if they are still voluntary to take part in the research project.

9. Should you be treated not according to the patient/participation information sheet, you may make a complaint at of the Ethical Review Committee for Research Involving Human Research Subjects, Health Science Group, Chulalongkorn University, 4th floor, Institute Building 2, Soi Chulalongkorn 62, Payathai Road, Patumwan District, Bangkok 10330, telephone: 02-218-8147 facsimile 02-218-8147 or email address: eccu@chula.ac.th.

10. There will be no payment or gift for you when participating in this project.

11. This research duration is January to June 2009, a total of 6 months

12. This total subjects are expected to be 400 adult Myanmar migrant workers in Mahachai Sub-district, Samut Sakhon Province, Thailand.

Thank you very much for your kind cooperation.

……

(Mr. Tun Linn Thein)
Principal investigator

APPENDIX B
Informed Consent Form

Name of research project
Nature of accessibility to health care services and health-related quality of life among adult Myanmar migrant workers in Mahachai Sub-district, Samut Sakhon Province, Thailand
Number of the research subjects……400…….

I, who sign here below on this informed consent form, have been clearly explained with satisfaction from the researcher whose name is Mr. Tun Linn Thein .address… College of Public Health Sciences, Chulalongkorn University, Institute Building 3, Floor 10th, Soi Chulalongkorn 62, Phyathai Road, Patumwan, Bangkok 10330..telephone…085-332-5007..regarding the research objective (s) and steps in the research, including risk/danger and benefit which occur from this research project.

I take part in this research project with willingness and I have the right to withdraw from this research project at any time according to my will with no need to give reason. This withdrawal will not impact me by all means.

I have been certified that the researcher will treat me according to the patient/participant information sheet and my data will be kept confidential.

I am willing to take part in this research project under the above stated conditions as appear in the patient/participant information sheet.

I have received one copy of the patient/participant information sheet and this informed consent form already.

……..	…….
Place/date	Name of research subject
……..	……
Place/date	(Mr. Tun Linn Thein)
	Principal researcher
……..	…….
Place/date	( )
	Witness

APPENDIX C

Structured face-to-face interview on "Nature of accessibility to health care services and health-related quality of life among adult Myanmar migrant workers in Mahachai Sub-district, Samut Sakhon Province, Thailand"

By Mr. Tun Linn Thein
The College of Public Health Sciences, Chulalongkorn University, 2009.

Part 1: General information

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.) Your age……. years…….months

2.) Gender
□ (i). Male □ (ii). Female

3.) Ethnicity
□ (i). Mon □ (ii). Karen
□ (iii). Rakhine □ (iv). Dawei
□ (v). Myanmar □ (vi). Others (please specify)…….

4.) Marital status
□ (i). Single □ (ii). Married
□ (iii). Widowed □ (iv). Divorced/separated

5) How many family/household members you have while working and living in Thailand?.....

6) Length of stay in Thailand……. years…….months

7)Thai language skills
□ (i) Cannot communicate at all
□ (ii) Can communicate basically
□ (iii) Can speak fluently but cannot read/write
□ (iv) Fluent in Thai

8)Educational achievement
□ (i). No Education □ (ii). Primary Education
□ (iii). Secondary Education □ (iv). Higher Education

9)Monthly household income in Thailand
□ (i). Less than 2,000B □ (ii). 2,000-3,999B
□ (iii). 4,000-6,000B □ (iv). More than 6,000B

10)Monthly household expenditure in Thailand
□ (i). Less than 2,000B □ (ii). 2,000-3,999B
□ (iii). 4,000-6,000B □ (iv). More than 6,000B

11)How much percentage of your income is sent back to Myanmar?

- (i). None
- (ii) 1-19 %
- (iii). 20-39 %
- (iii). 40-59%
- (iv). 60-79 %
- (v). 80-100 %

12)Occupation

- (i). Seafood processing
- (ii). Fishery
- (iii). Manufacturing worker
- (iv). Agriculture
- (v). Others (please specify)……. …….

13)Did you feel any sickness in the past 4 weeks?

- (i). Yes
- (ii). No

If yes, please specify …….

Did you receive health care service?

- (iii). Yes
- (iv). No

14)Did your family member feel any sickness in the past 4 weeks?

- (i). Yes
- (ii). No

If yes, please specify ……

Did they receive health care service?

- (iii). Yes
- (iv). No

Part 2: Health-related quality of life WHOQOL-BREF

Instruction: 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.**

No.	Item	Very poor	Poor	Neither poor nor good	Good	Very good
1.	How would you rate your quality of life?	1	2	3	4	5

No.	Item	Very dis-satisfied	Dis-satisfied	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.

No.	Item	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
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.

No.	Item	Not at all	A little	Moderately	Mostly	Comple-tely
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

No.	Item	Very poor	Poor	Neither poor nor good	Good	Very good
15.	How well are you able to get around?	1	2	3	4	5
No.	Item	Very dis-satisfied	Dis-satisfied	Neither	Satis-fied	Very satisfied
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
20.	How satisfied are you with your personal relationships?	1	2	3	4	5
21.	How satisfied are you with your sex life?	1	2	3	4	5
22.	How satisfied are you with the support you get from your friends?	1	2	3	4	5
23.	How satisfied are you with the conditions of your living place?	1	2	3	4	5
24.	How satisfied are you with your access to health services?	1	2	3	4	5
25.	How satisfied are you with your transport?	1	2	3	4	5

The following question refers to how often you have felt or experienced certain things in the last four weeks.

No.	Item	Never	Seldom	Quite often	Very often	Always
26.	How often do you have negative feelings such as blue mood, despair, anxiety, depression?	5	4	3	2	1

Do you have any comments about the assessment? ……..

Part 3: Living Conditions

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

1.) In what kind of house do you live in?
 (i). Lodging in the work compound
 (ii). Rent apartment/room
 (iii). Partitioned shared room provided by the employers
 (iv) Others (please specify) ……

2.) Is your home considered crowded?
 (i). Yes (ii). No

Part 4: Working Conditions

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

Working Conditions

1.) Work permit
 (i) Have (ii) Don't have

2.) How long have you been working in your current job? …….. Years

3.) How many jobs did you change before getting current job? ……... Times

4.) How many working hours do you work per day? ……... Hours

5.) How many working days do you have per week? …….. Days

6.) How satisfied are you with sound condition in your working environment?
(i). Strongly Satisfied (ii). Satisfied (iii). Dissatisfied (iv). Strongly Dissatisfied

7.) How satisfied are you with lighting condition in your working environment?
(i). Strongly Satisfied (ii). Satisfied (iii). Dissatisfied (iv). Strongly Dissatisfied

8.) How satisfied are you with ventilation condition in your working environment?
(i). Strongly Satisfied (ii). Satisfied (iii). Dissatisfied (iv). Strongly Dissatisfied

9.) How satisfied are you with smell condition in your working environment?
(i). Strongly Satisfied (ii). Satisfied (iii). Dissatisfied (iv). Strongly Dissatisfied

10.) How satisfied are you with your present job position (sitting, standing)?
(i). Strongly Satisfied (ii). Satisfied (iii). Dissatisfied (iv). Strongly Dissatisfied

11.) How satisfied are you with your present job salary?
(i). Strongly Satisfied (ii). Satisfied (iii). Dissatisfied (iv). Strongly Dissatisfied

If you or your family members have received health care service within past 4 weeks, please continue to following part 5.
If not, this is the end of interview. Thank you very much for taking part in this research

Part 5: Accessibility to health care services

Instruction: The following questions are about your accessibility to health care services. Please mark X in the Please also write down in the blank space where provided.

1.) When you or your family member get ill, where do you often go to?

- (i) Community health center
- (ii) District health center
- (iii) Hospital
- (iv) Private clinic
- (v) Drug store
- (vi) NGO
- (vii).Others (please specify) ……

2.) Approximately how far is it from your home to the health center you often go to when you or your family member get ill?

- (i). Less than 2 kilometers
- (ii).2-3 kilometers
- (iii). 3-5 kilometers
- (iv).More than 5 kilometers

3.)Approximately how long would it take you to get to the health center from your home?

- (i). 10 minutes
- (ii).20 minutes
- (iii). 30 minutes
- (iv).More than 30 minutes

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

(i). Very difficult	(ii). Difficult	(iii).Easy	(iv).Very easy

What makes it difficult to you? …….

5.) Is it convenient for you to go to the clinic in the opening hour?

(i). Very convenient	(ii). Convenient	(iii).Inconvenient	(iv).Very Inconvenient

6.) How long do you usually wait to meet the health care service personnel at health center from the time you are registered with the Outpatient Department (OPD)?

- (i). 10 minutes
- (ii).20 minutes
- (iii). 30 minutes
- (iv).More than 30 minutes

7.) How satisfied are you with the waiting time at the health center?

(i). Strongly Satisfied	(ii). Satisfied	(iii). Dissatisfied	(iv). Strongly Dissatisfied

8.) Is the community health station usually crowded?

(i)All of the time	(ii)Most of the time	(iii)Some of the time	(iv)A little of the time	(v)None of the time

9.) When you meet your health care service personnel, are you welcomed?

(i)All of the time	(ii)Most of the time	(iii)Some of the time	(iv)A little of the time	(v)None of the time
□	□	□	□	□

10.) Does your health care service personnel give you a chance to talk about your disease?

(i)All of the time	(ii)Most of the time	(iii)Some of the time	(iv)A little of the time	(v)None of the time
□	□	□	□	□

11.) After your health care service personnel prescribes you the medicine, is it available to buy at the health center?

(i)All of the time	(ii)Most of the time	(iii)Some of the time	(iv)A little of the time	(v)None of the time
□	□	□	□	□

12.) Is it convenient for you to buy medicine at the health center?

(i)All of the time	(ii)Most of the time	(iii)Some of the time	(iv)A little of the time	(v)None of the time
□	□	□	□	□

Why is it not convenient? …….

13.) How satisfied are you with the quality of treatment you get at the health center?

(i). Strongly Satisfied	(ii). Satisfied	(iii). Dissatisfied	(iv). Strongly Dissatisfied
□	□	□	□

Why is it not? …….

14.) Do you have health insurance?

□ (i).Yes □ (ii). No

If no, where do you go when you get ill? ……

If yes, do you have the insurance card with you?

□ (iii).Yes □ (iv). No

If no, who keeps your insurance card? ……

15.)Is the price for the consultation at the health center expensive?

□ (i). Yes □ (ii). No

16.) Does your health care service personnel at health center often prescribe expensive medicine for you?

□ (i). Yes □ (ii). No

17.) Does the consulting room at the health center provide privacy (that people outside can not see in) for patients to be examined?

□ (i). Yes □ (ii). No

Thank you very much for taking part in this research.

APPENDIX D

Guidelines for in-depth Interview with Health Care Service Provider

Warm Up

1. How long have you been working/living in Mahachai Sub-district, Samut Sakhon?
2. What is the nature of your job?

Perceptions towards HRQoL and accessibility to health care services among adult Myanmar migrant workers in Mahachai Sub-district, Samut Sakhon

1. What is the most common illness in the community and why?
2. Opinion towards adult Myanmar migrant workers' current living conditions and what is the situation you wish to see?
3. Opinion towards adult Myanmar migrant workers' current working conditions and what is the situation you wish to see?
4. Opinion towards adult Myanmar migrant workers' current HRQoL and what is the situation you wish to see?

   Probes (1) Physical Health
   (2) Psychological
   (3) Social Relationships
   (4) Environment
5. Opinion towards adult Myanmar migrant workers' current accessibility to health care services and what is the situation you wish to see?

   Probes (1) Access to essential drugs
   (2) Reproductive health care – family planning
   (3) Prevention, treatment and rehabilitation services for occupational health
   (4) Emergency health care and referral system
6. Compare to the past one year, what are the positive and negative impacts on living and working conditions, HRQoL, and accessibility to health care services of adult Myanmar migrants workers, and why?

Thank you very much for taking part in this time research.

APPENDIX E – QUALITY OF LIFE TABLES

Table E –Number and percentage of respondents by items of WHOQOL-BREF (n=400)

Item	Very poor		Poor		Neither poor nor good		Good		Very good	
	N	%	N	%	N	%	N	%	N	%
1. How would you rate your quality of life?	3	0.75	39	9.75	236	59.00	114	28.50	8	2.00

Table E – (Continued) Number and percentage of respondents by items of WHOQOL-BREF (n=400)

Item	Very dissatisfied		Dissatisfied		Neither satisfied nor dissatisfied		Satisfied		Very satisfied	
	N	%	N	%	N	%	N	%	N	%
2. How satisfied are you with your health?	2	0.50	28	7.00	125	31.25	219	54.75	26	6.50

Table E – (Continued) Number and percentage of respondents by items of WHOQOL-BREF (n=400)

Item	Not at all		A little		A moderate amount		Very much		An extreme amount	
	N	%	N	%	N	%	N	%	N	%
3. To what extent do you feel that physical pain prevents you from doing what you need to do?	99	24.75	212	53.00	77	19.25	10	2.50	2	0.50
4. How much do you need any medical treatment to function in your daily life?	228	57.00	109	27.25	59	14.75	3	0.75	1	0.25
5. How much do you enjoy life?	35	8.75	67	16.75	268	67.00	23	5.75	7	1.75
6. To what extent do you feel your life to be meaningful?	68	17.00	105	26.25	202	50.50	24	6.00	1	0.25

Table E – (Continued) Number and percentage of respondents by items of WHOQOL-BREF (n=400)

Item	Not at all		A little		A moderate amount		Very much		Extremely	
	N	%	N	%	N	%	N	%	N	%
7. How well are you able to concentrate?	9	2.25	69	17.25	193	48.25	121	30.25	8	2.00
8. How safe do you feel in your daily life?	68	17.00	118	29.50	174	43.50	33	8.25	7	1.75
9. How healthy is your physical environment?	17	4.25	57	14.25	223	55.75	88	22.00	15	3.75

Table E – (Continued) Number and percentage of respondents by items of WHOQOL-BREF (n=400)

Item	Not at all		A little		Moderately		Mostly		Completely	
	N	%	N	%	N	%	N	%	N	%
10. Do you have enough energy for everyday life?	5	1.25	39	9.75	169	42.25	171	42.75	16	4.00
11. Are you able to accept your bodily appearance?	41	10.25	54	13.50	219	54.75	75	18.75	11	2.75
12. Have you enough money to meet your needs?	74	18.50	132	33.00	184	46.00	8	2.00	2	0.50
13. How available to you is the information that you need in your day-to-day life?	23	5.75	108	27.00	210	52.50	51	12.75	8	2.00
14. To what extent do you have the opportunity for leisure activities?	138	34.50	93	23.25	83	20.75	53	13.25	33	8.25

Table E – (Continued) Number and percentage of respondents by items of WHOQOL-BREF (n=400)

Item	Very poor		Poor		Neither poor nor good		Good		Very good	
	N	%	N	%	N	%	N	%	N	%
15. How well are you able to get around?	7	1.75	41	10.25	150	37.50	178	44.50	24	6.00

Table E – (Continued) Number and percentage of respondents by items of WHOQOL-BREF (n=400)

Item	Very dissatisfied		Dissatisfied		Neither satisfied nor dissatisfied		Satisfied		Very satisfied	
	N	%	N	%	N	%	N	%	N	%
16. How satisfied are you with your sleep?	2	0.50	37	9.25	68	17.00	222	55.50	71	17.75
17. How satisfied are you with your ability to perform your daily living activities?	2	0.50	21	5.25	106	26.50	223	55.75	48	12.00
18. How satisfied are you with your capacity for work?	4	1.00	26	6.50	85	21.25	263	65.75	22	5.50
19. How satisfied are you with yourself?	6	1.50	50	12.50	80	20.00	236	59.00	28	7.00
20. How satisfied are you with your personal relationships?	5	1.25	13	3.25	139	34.75	223	55.75	20	5.00
21. How satisfied are you with your sex life?	8	2.00	19	4.75	92	23.00	204	51.00	77	19.25
22. How satisfied are you with the support you get from your friends?	1	0.25	48	12.00	197	49.25	133	33.25	21	5.25
23. How satisfied are you with the conditions of your living place?	6	1.50	42	10.50	145	36.25	195	48.75	12	3.00
24. How satisfied are you with your access to health services?	3	0.75	38	9.50	114	28.50	224	56.00	21	5.25
25. How satisfied are you with your transport?	26	6.50	46	11.50	90	22.50	165	41.25	73	18.25

Table E – (Continued) Number and percentage of respondents by items of WHOQOL-BREF (n=400)

Item	Never		Seldom		Quite often		Very often		Always	
	N	%	N	%	N	%	N	%	N	%
26. How often do you have negative feelings such as blue mood, despair, anxiety, depression?	16	4.00	185	46.25	151	37.75	41	10.25	7	1.75

APPENDIX F

Budget

No.	Activities	Unit	Price (Baht)	Unit (Number)	Total Budget (Baht)
1	Pre-testing				
	Photocopy	Quest.	7	30	210
	Stationary	Set	400/set	1	400
2	Data Collection				
	Photocopy Quest.	Quest.	0.5/page	7x400	1,400
	Training of interviewers	Person	200/day	2 prs x 1 day	400
	Interviewers per diem	Person	200/day	3 prs x 14 days	8,400
	Transportation cost	Trip/day	100/day	3 prs x 14 days	4,200
	DATA COLLECTION PROCESS			**SUBTOTAL**	**15,010**
3	Document Printing				
	Paper + Printing	Page	5/page	800 pages	4,000
	Photocopy (exam + final submit)	Page	0.5/page	12x400	2,400
	Stationary	Set	400/set	1	400
	Binding Paper (exam)	Set	150/set	6	900
	Binding Paper (submit)	Set	200/set	6	1,200
	THESIS DOCUMENT PROCESS			**SUBTOTAL**	**8,900**
	G R A N D T O T A L				**23,910**

APPENDIX G

Time Schedule

Project procedure	Time Frame (month)									
	Aug08	Sep08	Oct08	Nov08	Dec08	Jan09	Feb09	Mar09	Apr09	10May09
1.Literature review										
2. Writing thesis proposal										
3. Submission for proposal exam										
4. Proposal exam										
5.Ethical consideration from Chulalongkorn University (CPHS)										
6.Pretest questionnaire										
7.Field preparation and data collection										
8. Data analysis										
9. Thesis and article writing										
10. Final thesis exam										
11. Submission of article for publication									**(1st Apr 09)**	
12. Submission of thesis										**(10 May 09)**

CURRICULUM VITAE

Name	:	Mr. Tun Linn Thein
Date of Birth	:	2nd October 1982
Place of Birth	:	Myit Kyi Nar (Kachin State, Union of Myanmar)
Educational Achievement	:	M.B.,B.S. (2007) University of Medicine (1), Yangon, Myanmar
Work Experience	:	2007-2008 Medical Doctor Nyunt Myittar Clinic for Skin and STI Yangon, Myanmar 2007-2008 Medical Doctor Thukha Waddy Medical Centre Yangon, Myanmar