Depression among older people in rural Thailand

- Knowledge of population, and experiences and perceptions of patients, families, and psychiatric nurses

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To my beloved parents and my aunt
for supporting and encouraging me to believe in myself
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Abstract

Background: The number of older persons (defined as age 60 and over) in Thailand has grown rapidly, and will be projected to increase to over 20 million by 2035. With an aging population, the number of older people suffering from health problems (such as non-communicable and degenerative diseases) was increasing as well. Older people faced physical and mental health challenges that need to be recognized. Depression among older people is significantly high and associated with physical illness; however it remains overlooked, improperly diagnosed, and inadequately treated.

Aim: The overall aim of the study was to gain deeper knowledge of the phenomenon of depression in older people in rural Thai areas. The aim of each the study was to describe and understand the experiences and perceptions of individual psychiatric nurses, patients, and their family members, as well as to study public knowledge about depression among older people in rural Thailand.

Methods: The setting of this thesis was a rural area in Thailand. It included four studies. The first three studies involved qualitative research, and latent content analysis was used to analyze data. In-depth interviews were used to collect data. Purposive sampling was used to select participants for the first three studies, which included 13 psychiatric nurses (study I), 14 older people with depression (study II), and 13 family members of older patients suffering from depression (study III). The fourth study is a quantitative cross-sectional study with 2,636 respondents aged 18 years to 75 and living in a household while data was collected. Respondents were selected using multi-stage random sampling.
Results: Study I - The psychiatric nurses’ experiences and perceptions of their professional role were mirrored in the following themes: 1) managing a central role in patient care; 2) conflicting interests between the professional needs of caregiving and other requests; and 3) being compassionate beyond their official duties. Study II - the experiences and perceptions of older Thai people with depression were abstracted into two themes. The first theme was 1) leading a life of detachment, and the second theme was 2) inconvenience of obtaining mental health treatment. Study III - the experiences and perceptions of family members of older people showing major depression were abstracted into two themes. The first theme was 1) perceiving a traditional rural view on mental illness, and the second was 2) experiencing complexity in everyday life when caring for older depressed family member. Study IV - The 2,636 respondents have moderate knowledge about depression among older people, with a respondent mean score of 5.86 (SD = 1.68). Education level was significantly associated with knowledge about depression. If education level changes from lower to higher, the odds for level of knowledge about depression increase. This result may indicate the need for enhanced mental health literacy in rural areas.

Conclusion: Older people with depression in a rural Thai area were the responsibility of an inadequate number of psychiatric nurses. The results showed sign of lacking knowledge about depression among older people and an imbalance between the needs of patients and the mental health care provided by the psychiatric nurses in rural areas. The patients and their relatives, and psychiatric nurses felt burdened in daily life. An immediate concern for mental healthcare providers is providing mental literacy in rural areas. These primary results can be used by mental health authorities to
develop plans to enhance quality of care for older people with depression, and as such, provide psychosocial support for patients and their family. This would reduce the burden on psychiatric nurses and adjust human resources in mental health services in district hospitals.

**Key words:** depression, experiences, family members, nurses, older people, rural, Thailand
List of papers


Study III  Family members’ perceptions and experiences of older people displaying major depression. *On the process of manuscript.*

Study IV   Public knowledge about depression among older people: A cross sectional survey study in rural Thai area. *Manuscript submitted for publication to Asian Nursing Research.*

The studies were printed after receiving permission from the respective publishers.
## Abbreviations

<table>
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<tr>
<td>2Q/PHQ-2</td>
<td>Patient Health Questionnaires-2</td>
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<td>CSMBS</td>
<td>Civil Servant Medical Benefits Schemes</td>
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<tr>
<td>DALYs</td>
<td>Disability-Adjusted Life Years</td>
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<tr>
<td>DSM-V</td>
<td>Diagnostic and Statistical Manual of Mental Disorders, Fifth Revision</td>
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<tr>
<td>FSN</td>
<td>Family System Nursing</td>
</tr>
<tr>
<td>HPHs</td>
<td>Health Promotion Hospital</td>
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<tr>
<td>MHL</td>
<td>Mental Health Literacy</td>
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<tr>
<td>SPSS</td>
<td>Statistical Package for Social Sciences</td>
</tr>
<tr>
<td>SSS</td>
<td>Social Security Schemes</td>
</tr>
<tr>
<td>TB</td>
<td>Tuberculosis</td>
</tr>
<tr>
<td>TGRI</td>
<td>Thai Gerontology Research and Development Institute</td>
</tr>
<tr>
<td>UCS</td>
<td>Universal Coverage Scheme</td>
</tr>
<tr>
<td>WHO</td>
<td>The World Health Organization</td>
</tr>
<tr>
<td>YLDs</td>
<td>Years Lived with Disability</td>
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Preface

A long time ago, I graduated from a nursing college with a bachelor’s degree, and I started my job as a registered nurse in a district hospital, in a rural Thailand. I worked in the inpatient unit, the emergency unit, and the labor room, for five years by each unit. During this period, I became consciously aware of the mental health of patients. In 2008, I returned to study for a master’s of mental health and psychiatric nursing at Mahidol University in Bangkok, Thailand. My master’s thesis was titled Interpersonal psychotherapy for reducing depressive symptoms in older people: Evidence-based nursing. After graduation, I was a psychiatric nurse and established my career at an outpatient mental health and psychiatric clinic in the same hospital. I was responsible not only for mental health and psychiatric patients but also for other groups, such as child development and abused children and women. Since 2013, I have taught Nursing Science at Boromarajonani College of Nursing, Chakriraj, Ratchaburi province, Thailand. In 2014, I became a doctoral student in nursing science, with a project focusing on older people with depression in a rural Thai area at Mid Sweden University, Sweden.
1. Introduction

This thesis has been written in the area of nursing science. This study used both qualitative methods—to gain a broader and deeper understanding of the experiences and perceptions of patients, their relatives, and psychiatric nurses working with older people suffering from depression—and quantitative methods—to study the level of knowledge regarding depression in older people in the Kanchanaburi province, defined as a rural area. The author’s experience working as a psychiatric nurse for seven years inspired further research in this area. One clinical experience has been that patients do not get treatment because healthcare providers are not aware of how older people suffered from depression, while simultaneously, older people think that depression is a part of normal life.

Clinical depression is positively related to interference with human functioning, deterioration of health, thought and memory problems, persistent feelings of sadness, and hopelessness (Townsend, 2008). Particularly in older people, depression affects both the physical and psychological aspects of their lives. There is a significantly-high level of co-morbidity between depression and somatic illnesses, including diabetes mellitus, chronic sinusitis, back problems, asthma (Gunn et al., 2010), and lack of self-esteem (Soonthornchiya, 2011). Older people suffering from depression showed significant gray matter reduction in the whole brain, which is associated with disruption of the neural networks that regulate mood and behavior (Stratmann et al., 2014). Moreover, these patients showed both central and peripheral signs of inflammation, as well as enhanced levels of a specific translocator protein associated with cardiovascular diseases (Su et al., 2016).
Older people with depression are often underdiagnosed, undertreated, or mistreated, as depression may co-exist in combination with somatic illness, and furthermore, older patients may believe that depression is a part of normal life (Maiera, 2010; Gellis, 2010). Additionally, older people may be less likely to report symptoms of depression, and may be less comfortable than younger generations in discussing emotions (Bryant, 2010). Above all, depression is the most important predictor of suicide ideation and suicide attempts (Indu et al., 2017); it can lead to suicide among older people (Shin et al., 2013). In 2017, the number of Thai people ages 60 years and older who commit suicide was 769—18.61 % of the national total of suicide deaths. Those aged 60 to 69 years had the highest rates of suicide, and the top three causes of suicide were family relationships, physical chronic diseases, and depressive disorders (Department of Mental Health, Thailand, 2018).

In Thailand, depression is a prevalent mental disorder; unfortunately, it remains under-recognized not only by those affected, but also by the public and by the healthcare profession (Kongsuk et al., 2017). This is very important, especially in rural areas, which lack mental healthcare providers. This thesis aims to highlight the phenomenon of depression among older people in rural Thailand.
2. Background

2.1 Health and Mental Health

The concept of ‘health’ has various definitions. The World Health Organization (WHO) (2003) defined ‘health’ as a state of complete physical, mental, and social well-being, and not merely the absence of disease or infirmity. According to the Oxford Advanced Learner’s Dictionary, health is the state of being physically and mentally healthy, and the condition of a person’s body or mind (Hornby et al., 2010). Health is viewed positively. Additionally, mental health was defined as a state of well-being whereby individuals recognize their abilities, are able to cope with the normal stresses of life, work productively and fruitfully, and contribute to their communities (WHO, 2003). To put it more simply, mental health is the psychological state of someone who is functioning at a satisfactory level of emotional and behavioral adjustment, and an individual's ability to enjoy life, to balance life activities, and to achieve psychological resilience (American Psychiatric Association; APA, 2013).

2.2 Mental illness

Mental disorders comprise a broad range of problems with different symptoms; however, they are generally characterized by some combination of abnormal thoughts, emotions, behaviors, and relationships with others (WHO, 2017a). Examples include schizophrenia, depression, intellectual disabilities, and disorders due to drug abuse. The burden of mental disorders continues to grow, with significant impacts on health and with major social, human rights, and economic consequences in all countries of the world. Still,
most of these disorders can be successfully treated. The WHO has created the Mental Health Global Action Programme (mhGAP), aimed at improving the mental health of populations. These projects are designed within a framework of activities that includes providing support to countries to monitor their mental health systems, formulate policies, improve legislation, and reorganize their services, with a particular focus on low- and middle-income countries (WHO, 2003). For one of the projects/activities, WHO developed guidelines for the management of depression. Depression is both underdiagnosed and undertreated in primary care settings; symptoms are often overlooked and untreated because they co-occur with other problems encountered by older people (Bryant, 2010; Monteso et al., 2012). This problem is still under-identified by healthcare professionals and older people themselves (WHO, 2017b). This is a huge challenge in Thai mental healthcare. This study seeks to provide an understanding of the situation of older people with depression in a rural Thai area.

2.3 Clinical depression
Depression and depressive disorders are characterized by sadness, loss of interest or pleasure, feelings of guilt, low self-worth, disturbed sleep or appetite, feelings of tiredness, and poor concentration. Depression can be long-lasting or recurrent, and substantially impairs an individual’s ability to function at work or school or to cope with daily life. At its most severe, depression can lead to suicide (WHO, 2017c). The Diagnostic and Statistical Manual of Mental Disorders (DSM-V) defines clinical depression as a state of experiencing five or more symptoms (depressed mood, diminished interest, significant weight loss, a slowing down of thought, a reduction of physical
movement, fatigue, feelings of worthlessness, diminished ability to think or concentrate, and recurrent thoughts of death), with at least one of two symptoms (either depressed mood or lack of interest and pleasure in almost all activities) presenting for at least two weeks (APA, 2013). To receive a diagnosis of depression, these symptoms must cause the individual clinically-significant distress or impairment in social, occupational, and/or other important areas of functioning. Additionally, the symptoms cannot be a result of substance abuse or other medical condition (APA, 2013).

In Thailand, the Thai version of the Patient Health Questionnaire (PHQ-9) (Lottrakul, Sumrithe, & Saipanish, 2008) was translated from the original PHQ-9 (Kroenke, Spitzer, & Williams, 2001). The Thai PHQ-9 has acceptable psychometric properties for screening for major depression in general practice. The PHQ-9 asks nine questions about a variety of depressive symptoms over the past two weeks; these nine items are derived specifically from the DSM-V criteria for major depressive disorder. Items on this self-administered scale are rated by prevalence in the past two weeks, from 0 (never) to three (nearly every day). The score of the PHQ-9 is divided into four levels: no depression (< 7), mild depression (7-12), moderate depression (13-18), and severe depression (≥ 19).

2.4 Depression worldwide
Depression is a very common mental health problem worldwide (Barcelos-Ferreira, Izbicki, Steffens, & Bottino, 2010; Byers, Yaffe, Covinsky, Friedman, & Bruce, 2010; Fiest, Currie, Williams, & Wang, 2011; Monteso et al., 2012; Tiwari, Pandy, & Singh, 2012; Verhaak, Dekker, de Waal, van Marwijk, & Comijs, 2014; Padayachey, Ramlall, & Chipps, 2017; Indu et al., 2017; Xiang, Danilovich, Tomasino, & Jordan, 2018). A systematic review revealed that the
prevalence of depression among older persons ranges from 3.7% to 30.7% (Luppa et al., 2012). In Australia, the prevalence of depression among older people was 8.2% (Pirkis et al., 2009). A previous study conducted from 2007 to 2010 in six countries (China, Ghana, India, Mexico, Russian Federation, and South Africa) found that the prevalence of depression in older people was found to be highest in India (27.4%), followed by Mexico (23.7%) and Russia (15.6%) (Anand & Phil, n.d.). In Thailand, the prevalence of depression in older people ranged from 7.2% to 27.5%, depending on population studied and the categories of the disorder examined (Thongtang et al., 2002; Wangtongkum, Sucharitakum, Wongjareon, & Maneecompoo, 2008; Haseen & Prasartkul, 2011; Sompon, Neeser, & Iamsupasit, 2012; Wongpakaran & Wongpakaran, 2012). This yielded similar findings to a study in the USA, conducted by Xiang et al. (2018), which found that the prevalence of depression was 23.0% among older home health-service users and 7.7% among those who did not receive home healthcare. This is in line with a study in Japan that found the prevalence of depression was 7.4% (Inagaki et al., 2013).

The WHO considers depression to be the second-largest cause of disability worldwide (Lopez, Mathers, Ezzati, Jamison, & Murray, 2006; Ferrari et al., 2013). In Thailand, depression is the fourth-largest cause of disability in women and the tenth-largest in men (Bundhamcharoen, Odton, Phulkerd, & Tangcharoensathien, 2011).

2.4.1 Perspective of patients
Patients with depression reported that they received emotional support, encouragement of self-care, and activity support from family and friends (Sussman et al., 2014). A previous study showed that older people with
depression carry a burden of guilt and shame about not being good enough. It was difficult for them to maintain self-esteem and self-confidence in their community (Soonthornchiya, 2011; Holm, Lyberg, Lassenius, Severinsson, & Berggren, 2013). The patients believed that depression was a normal reaction to life circumstances and did not see the need to seek professional treatment for depression (Ward, Mengesha, & Issa, 2014).

2.4.2 Perspective of families
A family member is defined as a person who belongs to a (particular) family; a (close) relative (English oxford living dictionary, 2018). For the purposes of this thesis, family members are the persons who provide the bulk of the support and/or assistance to older people suffering from major depression. While caring for older people with depression, families carried the burden of caregiving for their parents (Perlick et al., 2007; Bhattacharya, Sadhukhan, & Sanyal, 2010; Crowe & Brinkley, 2015; Paskulin et al., 2017). They expressed how the depression was difficult to understand; therefore the patients were difficult to take care of (Ahlstrom, Skarsater, & Danielson, 2009; Ahlstrom, Skarsater, & Danielson, 2010; González, Romero, López, Ramírez, & Stefanelli, 2010; Radfar, Ahmadi, & Fallahi Khoshknab, 2014).

2.4.3 Idea of depression
Depression symptomatology has often been undetected (Licht-Strunk, Beekman, Haan, & Marwijk, 2009). Furthermore, some misunderstanding may persist; for example, seeing depression as part of a normal aging process (Smyer & Qualls, 1999). Moreover, healthcare providers do not pay attention to older people’s symptoms and are not sufficiently aware of the severity of depression, as they also seem to think that depression is part of the normal aging process (Bryant, 2010).
2.5 Demographic of older people worldwide

The number of older people, defined as those aged 60 years or older (United Nations; UN), 2015), has increased substantially in recent years in most countries and regions, and this growth is projected to accelerate in the coming decades. Most developed countries have defined older people as those who have reached the chronological age of 65 years (WHO, 2013), but people older than 50 years are considered older in Africa (WHO, 2016). Moreover, in the United States, psychologists have classified older people into three groups: the young-old (65-74 years), the middle-old (75-84 years), and the old-old (85 years or over) (Touhy & Jett, 2010). At this time, the UN has not presented a standard numerical criterion, but agrees that the cutoff of people who are at least 60 years old refers to older people (WHO, 2016). The immediate cause of population aging is declining fertility rates and rising life expectancy (UN, 2015).

The percentage of older people in the world increased from 9.2 percent in 1990 to 11.7 percent in 2013 (UN, 2013). One study revealed that 60 percent of the world’s older population lives in Asia (Sasat & Bowers, 2013). Globally, the number of people in the world aged 60 years or over is projected to increase from 1.4 million in 2030 to nearly 2.1 billion in 2050 (UN, 2015). The number of older people in low- and middle-income countries is projected to increase more than 250 percent, compared with a 71 percent increase in developed countries (WHO, 2011). Over the next 15 years, the number of older people is expected to grow fastest in Latin America and the Caribbean, with a projected 71% increase in the population aged 60 years or over, followed by Asia (66%), Africa (64%), Oceania (47%), North America (41%), and Europe (23%). (UN, 2015).
2.6 Demographic of older people in Thailand

Thailand has the second-highest population of older people in Southeast Asia (Foundation of Thai Gerontology Research and Development Institute; TGRI, 2014). Thailand had a total population of approximately 68 million, ranking number 20 in the list of countries by population (World meters, 2018). The number of people aged 60 and over was 11,312,447 (55.1% female, n = 6,228,766; 44.9% male, n = 5,083,681). Over the next eight years, the number of older people is expected to rise sharply, to an estimated 14.9 million. The population of older people is rising exponentially. Reports show that the proportion of people aged 60 years and over was 16.7% (National Statistical Office; TH, 2018). The proportion of older people has been rising, from 12.2 percent in 2011 to 14.9 percent in 2014. It is projected to grow from 20 percent in 2021 to over 28% in 2031 (National Statistical Office; TH, 2018).

Moreover, within the next few years, persons age 60 and older will outnumber children under age 15 for the first time in Thai history (Knodel, Teerawichitchainan, Prachuabmoh, & Pothisiri, 2015). The dependency ratio in Thailand is 25 older people per 100 persons of working age, which means that every person of working age must support 25 older people; this report also showed that the older dependency ratio has been continuously rising, from 18.1 percent in 2011 to 22.3 percent in 2014 (National Statistical Office; TH, 2018). Older people have the highest rate of disability, and are often the most dependent (Apinsonkul, Soonthorndhada, Vapatanawong, Jagger, &
Aekplakorn, 2016). Figure 1 shows the past, present, and future (projected) population pyramids of Thailand.

Figure 1. Population Pyramids of Thailand in 2008, 2018, 2030, and 2040.

Source: Population Pyramids of the World from 1950 to 2100
Retrieved from https://www.populationpyramid.net/thailand/2018/
As the pyramid shows, the number of dependent older will increase rapidly. The total cost of both medical and non-medical care for them is estimated to be around 2.4% of total public medical expenses. Currently, this cost is borne mostly by families. This cost can put a great financial burden on families, especially poor ones (OECD, 2018).

2.7 Definition of older people
In Thailand, people retire at 60 years old; it is at this age that the state and the society define them as older. TGRI can thus be defined as anyone who is age 60 or older (TGRI, 2014). Accordingly, in this study, the term “older people” is defined as those who are 60 years of age or older. This definition relates to retirement from paid employment, and this age range most commonly describes older people in Thailand (Knodel et al., 2015).

2.8 Rurality
Rurality is a variable concept (Balfour, Mitchell, & Moletsane, 2008). In the United States, policymakers are often required to define what is “rural” in order to correctly apply national policies. Thus, two principal definitions of rural are used by the US federal government. ‘Rural’ is used by the Census Bureau to classify people who live in places with small populations or in unincorporated areas, with population density less than 1,000 per square mile (2.6 square kilometers). ‘Nonmetropolitan’ is used by the US Office of Management and Budget (OMB) and refers to counties that do not meet minimum population requirements, do not have a central city, or do not relate closely to larger urban places (Ricketts, Johnson-Webb & Taylor, 1998).
2.9 Definition of rural area
Accordingly, in this study, the term “rural area” is defined as the areas outside the urban area. They are sparsely settled and are distant from the centers of administration and service. The population density is low, including populations of less than 10,000 people. Most of the land used for agriculture, such as rice fields, fruit trees, and perennials. This definition relates to the definition of ‘rural’ of the Thailand Office of the Royal Society (2000). ‘Rural population’ (% of total population) refers to people living in rural areas in Thailand; it was reported to be 47.30% in 2017 (Central Intelligence Agency, 2017).

2.10 Thai context
Thailand is officially named the Kingdom of Thailand and is formerly known as Siam. It is located at the center of Southeast Asia (center of the Indochinese peninsula). The capital city is Bangkok. Thailand is one of the most populous countries in the world, with a population of approximately 68 million people, and covers an area of about 510,890 km\(^2\); thus, the population density is 135 per km\(^2\) (World meters, 2018). The country shares a long border with Myanmar to the west and the north, Laos to the north and the northeast, and Cambodia to the east. To the south lie Malaysia and the Gulf of Thailand, while the Andaman Sea and Myanmar lie to the west.

Thailand is divided into four distinct geographical regions: the mountainous North, the fertile Central Plains, the semi-arid plateau of the Northeast, and the peninsula South. Between its furthest points from north to south, the distance is 1,860 km. The country is comprised of 77 provinces, which are further subdivided into 998 districts and 8,860 sub-districts. Although many people live in the big cities (including Bangkok, which has a
population of about 12 million), two-thirds of the people still live in villages in the provincial countryside. Administratively, the country is divided into provinces, which each have a capital city. People who do not live in the provincial cities live within districts (*Amphur*) in the countryside. Each district has a capital town and a local government. Districts are further divided into sub-districts (*tambon*), which are further divided into villages.

Village life in Thailand is much different from life in the cities. The average Thai village has (approximately) between 200 and 3000 families, with a population of around 300 to 9,000 (Department of Provincial Registration of Administration, 2018). Most of the residents work in agriculture. Historically, Thailand has been significantly influenced by India and its culture and religion. Thailand is the world's most heavily Buddhist country; about 90 percent of all people in Thailand are Buddhists. Thailand is a middle-income country and is becoming an aging society.
According to Buddhism, the main way to show respect for older people is to provide for their needs. Young people should also take care of their parents' financial and other personal needs. In addition, younger people can show respect by listening to the advice of older people. Buddhists extend the idea of filial piety to all senior citizens (Wongtes, 2000).

Rural families are very different from families living in urban areas, who are more Westernized. Members of rural families usually work at the same occupations. The relationships between family, relatives, and neighbors are closer than in urban communities (Pinyuchon & Gray, 1997). It is still common
for children to remain in the home of their parents until they marry and begin their own family (Charoenthaweesub & Hale, 2011). Normally, parents live with their children and may help raise their grandchildren, doing housework, and the adult children go outside the household to work in agriculture, such as the rice field and vegetable garden. In Thai culture, children should take care their parents, out of gratitude for the parents taking care of them when they were children (Curran, Garip, Chung, & Tangchonlatip, 2005). Thailand has made impressive progress in providing education and healthcare to most of the population; however significant disparities in access remain—especially for poorer households and between rural and urban areas—that need to be addressed. Education quality needs to be improved (particularly the quality of teachers), and rising healthcare costs need to be contained through reforms that improve efficiency in delivering services (OECD, 2018).

2.11 Health services in Thailand

2.11.1 Health and welfare in Thailand

Thailand is a middle-income country in Southeast Asia. Its public healthcare system has long suffered from a problem of inequitable distribution of qualified health professionals (Wibulpolprasert & Pachanee, 2008). In Thailand, there are three different health insurance programs: the civil servant medical benefits schemes (CSMBS), the social security schemes (SSS), and the universal coverage scheme (UCS) or gold card (Ministry of Public Health Thailand, 2012). Even though all Thai citizens have been included in the universal coverage since 2002, reports find that many older people face challenges in using available health services. One key challenge for older people is that they dependent on caregivers and relatives to bring them to
health facilities. This is a particular plight for the older poor, those in the oldest age group (over 80 years old), and those who live in rural areas (World Bank, 2016).

2.11.2 Mental health services in Thailand
Thailand has mental health policies and plans; the Department of Mental Health (MHD) is the national mental health authority. Approximately 3.5% of healthcare expenditures by the government health department is directed to mental health services, and half of this is devoted to the mental hospitals (WHO and Ministry of Public Health Thailand, 2006). There are 122 outpatient facilities in the country, located in both mental hospitals and general hospitals. There are 25 community-based psychiatric units with 0.4 beds per 100,000 people, and 17 mental hospitals with 13.8 beds per 100,000 people. The rate of users in community-based inpatient units is 173 per 100,000, and the rate of users in mental hospitals is 158 per 100,000 (WHO and Ministry of Public Health of Thailand, 2006). There are 7.29 personnel for every 100,000 people working in mental health. There are few psychiatrists and psychosocial staff working in mental hospitals. In terms of staff-to-bed ratios, there are 0.01 psychiatrists; 0.15 nurses; 0.02 psychologists, social workers, or occupational therapists; and 0.05 other mental health workers per bed in mental hospitals. Some professionals work for both inpatient and outpatient facilities. A disproportionate amount of resources is concentrated in the main cities, which limits access to mental health services for rural residents (WHO and Ministry of Public Health of Thailand, 2006).

2.12 Surveillance system of depression in Thailand
The surveillance and care system involves: (i) screening and identification of people with depression; (ii) assessment of the severity of depression and
potential suicidality; (iii) accurate diagnosis; (iv) treatment; and (v) follow-up with patients to prevent relapse and suicide. Each is tailored to the level of the healthcare provider.

This system begins with identifying people at risk of having depression, using the Patient Health Questionnaire (PHQ)-2. In Thailand, this instrument is well-known as 2Q (Arunpongpaaisal et al., 2009). The 2Q is a simple and short instrument for depression screening. It is administered by community or village health volunteers (Thailand’s community health-worker force, a variety of community health aides who are selected and trained to work in their home communities), at community hospitals, and at various clinics in hospitals (e.g. diabetes clinics, antenatal care clinics, and psychiatric clinics). Risk groups selected for screening are: (i) those with chronic non-communicable diseases; (ii) people aged 60 years and above; (iii) women during pregnancy and in the postnatal period; (iv) those with alcohol or substance dependence; (v) those with overt depressive symptoms; (vi) those with chronic medically-unexplained physical symptoms; and (vii) those who have experienced an acute significant bereavement. The results of the screening are then disclosed to the individual, together with education about depression. Those who screen positive with the 2Q screen are advised to go to the community hospital, if they are not there already, for further assessment and diagnosis. Clinical severity is assessed using the 9Q scale, as mild, moderate or severe depression, so that treatments can be dispensed accordingly. (Kongsuk et al., 2017).

2.13 The role of the psychiatric nurses
According to the American Psychiatric Nurses Association (APNA) (1997), psychiatric nurses are experts in crisis intervention, mental health,
medications, and therapies that assist patients in mastering mental illnesses. They work closely with patients so that the latter can live as productive and fulfilling lives as possible. A psychiatric nurse starts his/her work with a patient by interviewing and assessing the new patient to learn his/her symptoms, history, illnesses, and daily living habits. A psychiatric nurse will usually work with a person who has anxiety disorders, such as panic attacks and various phobias, or mood disorders, including bipolar disorder and depression. A psychiatric nurse works closely with the treatment team to develop an individualized plan to give the patient the care and attention they need to live a productive life. The nurse will provide individual counseling to the patient as well as to the family, so that they have a better understanding of the illness. The nurse may also help the patient to dress and to take their medications properly. Psychiatric nurses are experts at evaluating complex psychiatric, substance-abuse, and physical-health needs and problems of patients across the life span. They assess and treat the psychosocial consequences of physical illness (APNA, 1997).

2.14 Theoretical framework
The framework this thesis consists of nursing theory, mental health literacy concept, and theory of science underpinning paradigm assumptions; these are explained below.

2.14.1 Nursing theory
One of the selected theoretical concepts is Peplau’s theory of interpersonal relations. Peplau’s theory can be classified as a middle-range theory (Fawcett, 2010), where the goal of the nurses is to establish a relationship and to build trust with the patient (Peplau, 1962). Nursing practice occurs within a relationship between nurse and patient; if the patient is accepted and valued
by the nurse, the intervention will be successful (Peplau, 1987). In the process of patient-nurse interaction, the nurse play the role of teacher, supervisor, administrator, consultant, or researcher (Peplau, 1962).

The other theoretical concept is family system nursing (FSN) (Wright & Leahey, 2013). The theory is conceptualized as focusing on the whole family as the unit of care, accepting that one member in a family affects all members of the family, impacting balance and stability. Health problem of one member can affect the whole family's health. Study III considers nursing intervention for family units, implying not only care for the individual patient but also to see the whole family as patients.

### 2.14.2 Mental health literacy

Health literacy is understood as the capacity of person to obtain, process, and understand basic health information and services. A degree of health literacy is necessary in order to make accurate/appropriate health decisions. The concept of mental health literacy (MHL) was first introduced by Jorm et al. (1997), and is defined as knowledge and beliefs about mental disorders that aid in their recognition, management, and/or prevention (Jorm, 2012). If mental disorders are to be recognized early by the community and appropriate intervention is to be sought, the level of mental health literacy needs to rise (Jorm et al., 1997). This study concerns the MHL around various depressive disorders.

### 2.14.3 Theory of science underpinning paradigm assumptions

The thesis will use a triangulation methodology to capture multiple perspectives and knowledge about older people suffering from depression in rural Thailand. In the first three studies of this thesis, the research questions and aims are best examined by using a qualitative research approach, which
is in line with the tenets of constructivist paradigm assumption. Constructivists maintain the assumption that individuals seek to understand the world in which they live and work (Creswell & Creswell, 2018). This thesis investigates from different perspectives the experiences and perceptions related to older people with depression in a rural Thai area.

The other theoretical framework related this study is quantitative research (Study IV). The quantitative method is based on the assumption of logical positivism and post-positivism, which operate on the rules of logic, truth, and predictions (Burns & Grove, 2010). Truth is can be observed and detected with our senses (Tappen, 2011). In order to be regarded as trustworthy according to positivism, the research must be seen as objective, which means that values, feelings, and personal perceptions should not interfere with the collection of data (Burns & Grove, 2010).
3. Rationale

Depression among older people is major concern in the Thai context. There are huge challenges in the Thai mental healthcare system. Due to the complexity of older peoples’ health status with co-morbidities, depression remain unrecognized. In Thailand, not enough research highlights how older people suffer from depression, how it affects family members, and how insufficient knowledge is of depression among older people, especially in Thai rural areas. To fill this gap, this study focuses on experiences and perceptions of older people suffering from depression, and knowledge of these populations. The outcomes of this research are expected to serve as baseline information and to be used to improve practices treating depression among the older population in Thai rural areas.
4. Aims

The overall aim of the study is to gain deeper knowledge of the phenomenon of depression in older people in rural Thai areas. The overall aim was operationalized into four specific aims: to describe and understand the experiences and perceptions of individual psychiatric nurses, of patients, and of their family members, and to study the level of public knowledge about depression among older people in rural Thailand.

4.1 The specific aims in the four studies

Study I  To describe Thai psychiatric nurses’ experiences with and perceptions of their professional role when caring for older people who display symptoms of depression.

Study II  To explore and understand the experiences and perceptions of older Thai people suffering from diagnosed major depression.

Study III To describe and understand the perceptions and experiences of family members who take care of older people with major depression in a rural Thai area.

Study IV  To survey public knowledge about depression among older people in a rural Thai area.
5. Method

5.1 The setting
The study took place in Kanchanaburi, a rural western province in Thailand that covers a total area of approximately 19,500 km². Kanchanaburi is situated approximately 130 kilometers west of Bangkok (Figure 3). It is the country's third-largest province, and contains thirteen districts that are further subdivided into 98 sub-districts and 961 villages. Kanchanaburi has a total population of 887,979 (446,262 men and 441,717 women), of which 119,166 are age 60 years and older. Kanchanaburi was selected precisely because it is one of the provinces that is rapidly becoming an aging society. Data on the registered population classified by age group shows that the proportion of people age 60 years and older was approximately 13.5% (Bureau of registration of administration, 2018). Most of the inhabitants are employed in agriculture. Generally, older people in rural Thailand are poor. Each province had a provincial hospital, one to two hospitals for every district, and one health center for every sub-district (tambon). Fifteen hospitals are located in the Kanchanaburi province.
5.2 Design
This study used various methodological approaches guided by the study aims. The thesis included four studies, with both qualitative (Study I, II, III) and quantitative (IV) approaches. The first three studies focused on the experiences and the perceptions of various stakeholders concerning older people suffering from depression. The last study focused on population or the public knowledge about depression among older people (see Table 1).
Table 1. Overview of methodological approaches, data collection, participants, and data analysis.

<table>
<thead>
<tr>
<th></th>
<th>Study I</th>
<th>Study II</th>
<th>Study III</th>
<th>Study IV</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Design</strong></td>
<td>Qualitative</td>
<td>Qualitative</td>
<td>Qualitative</td>
<td>Quantitative/ cross sectional survey</td>
</tr>
<tr>
<td><strong>Data collection</strong></td>
<td>In-depth interview</td>
<td>In-depth interview</td>
<td>In-depth interview</td>
<td>Self-administered questionnaire</td>
</tr>
<tr>
<td><strong>Participants/samples</strong></td>
<td>Psychiatric nurses (13)</td>
<td>Patients (14)</td>
<td>Family members (13)</td>
<td>Public population (n = 2,636)</td>
</tr>
<tr>
<td><strong>Data analysis</strong></td>
<td>Content analysis</td>
<td>Content analysis</td>
<td>Content analysis</td>
<td>Descriptive statistics and multinominal logistic regression</td>
</tr>
</tbody>
</table>

**5.3 Participants/ Respondents**

Different participants were recruited for each of the four studies. In study I, the participants were registered nurses who were specialists in psychiatric and mental health nursing. Participants in study II were people age 60 years and older who were diagnosed with major depressive disorder. In study III, the participants were family members of patients suffering from depression.
In study IV, the participants were the members of the population aged 18 to 75 who live in Kanchanaburi province, Thailand.

**Study I:**
The participants were purposively selected to suit the research objective. The inclusion criteria were: working in mental health and psychiatric nursing at a district hospital, and having more than two years of experience in caring for older people with a depressive disorder. Thirteen Thai psychiatric nurses agreed to participate in the study. All participants were women, aged 34 to 52 years (median 43.3 years), with 5-15 years (median 8 years) of experience working as a psychiatric nurse.

**Study II:**
The participants were recruited and selected using purposive sampling. The inclusion criteria were: 60 years or older, diagnosed with major depressive disorder according to the criteria of the Diagnostic and Statistical Manual of Mental Disorders (DSM-V; F.32) (APA, 2013), being treated by antidepressants, being able to speak and understand Thai, and being able to agree to take part in this study. Twenty-two older Thai people with depression were invited to participate but due to time limitation, a total of fourteen patients comprised the sample. All were women, age 60 to 79 years (median 67 years); half of them had lost their husbands and currently lived with their children.

**Study III:**
The participants were purposively selected to suit the research objective. The inclusion criteria were: family members of older patients suffering from depression according to the criteria of the DSM-V (APA, 2013) for at least 6 months, and willingness to participate in the study. All of the participants in
this study were caring for living older family members with depression. The participants were reached through psychiatric nurses working at outpatient units of district hospitals in the Kanchanaburi province. Information about the study was given to the psychiatric nurses, who were then asked about family members who would like to participate. The first author contacted participants by phone to set an appointment for an interview. Thirteen family members agreed to participate in the study. Eleven participants were children of the patients, and two participants were spouses. Eleven participants were female and two were male, all aged 35 to 60 years (median 42.6 years). Eight participants were married, and five participants were widowed.

**Study IV:**
The respondents were recruited from all districts (*Amphur*) of the Kanchanaburi province, Thailand. They were selected using multistage random sampling. In the first stage, a simple random sampling of sub-districts (*Tambon*) was taken from each of the districts. In the second stage, each smaller area (village) was taken from within each of the *Tambon*. Then, in the third stage, households were sampled from lists of house codes, selecting a sample of persons living in those households who were first to open the door. Inclusion criteria for the study were: being 18 to 75 years old, living in the household, and agreeing to participate in this study. The desired sample was one tenth (1/10) of all households (Floyd & Fowler, 2014). The calculation demonstrates the sample size in this study was required to be 2,636. To allow for attrition, the authors increased the sample size by 10% to include 2,900 participants. The response rate was 90.89%. 
5.4 Data collections and methodological approach

For each of the four studies, separate data collection procedures were conducted, as described below.

**Study I:**

This study used an individual, face-to-face, in-depth interview method. Each participant was contacted, and an appointment was made at a convenient time was made. In the interview, the participants allowed digital recording during the interviews. Open-ended questions were asked, to provide an opportunity for the informants to casually tell their stories. To address the study aim, the interview questions were concentrated in the following two domains:

1. Please, tell me about your professional role as a psychiatric nurse at the district hospital.

2. Please, tell me about your experiences when working with older people who display symptoms of major depressive disorder.

Clarifying questions and follow-up questions were asked to provide richer data. All interviews were transcribed verbatim and saved in the form of Word documents. Each face-to-face interview session took approximately 45-90 minutes, and all were conducted between April and October 2015. In all, approximately 160 pages of text were generated.

**Study II:**

The data was collected through face-to-face, individual, in-depth interviews (Polit & Beck, 2016). The first author contacted each participant to make an appointment that was convenient for the participant, and during the interview asked for permission to use digital recording. Ten interviews were conducted in private rooms at the outpatient clinic, and four interviews at the
patients’ homes. The first author started by asking general questions, and then used open-ended questions to encourage the participants to openly tell their stories. The interview questions were concentrated in the following domain: Please tell me about your experience of depression. To probe further, the participants were asked such questions as: could you please describe your experiences in more detail? Could you please give me some examples? The digitally-recorded interviews were transcribed into Word documents. Each interview session took approximately 40-90 (median 55) minutes, and were conducted from June to November 2016. In all, approximately 150 pages of text were generated.

Study II:
This study used an individual, face-to-face, in-depth interview method. The first author performed all interviews. Two interviews were conducted in a quiet room at the outpatient clinic, and eleven interviews took place at the participants’ homes. The researcher started with small talk, then asked for permission to record the interview. The participants were encouraged to tell in their story about caring for a patient. The questions were concentrated in the following domain: could you tell me about your experiences of taking care of your parent or spouse? Follow-up questions were also used to expand on the answers given, such as: could you explain that further? Could you give me some examples? A digital recorder was used to record the interviews, which were then transcribed verbatim into Word documents. The length of each interview ranged from 40 to 70 minutes (mean 52). The interviews occurred from September to November 2017. In all, approximately 155 pages of text were generated.
Study IV:
Survey instruments

This study used the Depression in Late Life Quiz, developed by Pratt, Wilson, Benthin, and Schmall (1992) and assessing individuals’ level of knowledge about depression. The internal consistency was .85 (Pratt et al., 1992). The Depression in Late Life Quiz was translated into Korean, and pilot testing with 20 Korean-American older adults produced an internal consistency of .54 (Jang, Gum, & Chiriboga, 2011). In this study, the Depression in Late Life Quiz was translated into Thai, through the translation/back-translation methodology inspired by Brislin (1970). Figure 4 below demonstrates the actual steps taken in the blind back-translation produces.

Afterward, the Thai version of the Depression in Late Life questionnaire was conducted to reach consensus validation by 5 experts, including one psychiatrist, two advanced nurses practitioner (in psychiatric nursing), and two psychologists. The Depression in Late Life questionnaire, Thai version was revised until consensus was achieved among all persons involved. Pilot testing with 40 members of the general population who are representative of the anticipated sample produced an internal consistency of .702.

The questionnaire comprised two sections. The first part of questionnaire was sociodemographic (6 items) and included items about gender, age, marital status, occupation, and education level (which could be answered multiple choice), and working in healthcare, which could be answered “Yes” or “No”.

For independent variable education, the level of education was divided into three levels: low education (elementary), moderate education (secondary to less than bachelor), and high education (bachelor and higher). The second part of the questionnaire was knowledge about depression (12 items). The answers were trichotomies, meaning that each item was evaluated as “True,” “False,”
and “I don’t know”. The “I don’t know” option was included to reduce the amount of guesswork from respondents (Pratt et al., 1992). The total number of items answered correctly measured knowledge about depression among older people, while the total number of items answered incorrectly indicated misconceptions about depression among older people, and the total number of “I don’t know” responses indicated the degree of uncertainty about depression among older people. Accordingly, the research question of the present study was “what is the current the level of public knowledge about depression among older people in rural Thai areas?”—Although the original instrument did not divide the knowledge scores, the authors trichotomized the scores of knowledge about depression into three levels: low (0-4), moderate (5-8), and high (9-12).

Figure 4. Steps taken in the blind back-translation produces.
The questionnaires were distributed and collected by nurses who worked in sub-district Health Promotion Hospital (HPHs). They were well-trained in handing out the questionnaire to respondents. The questionnaires were used to collect data within the respondents’ villages. The respondents were asked to self-administer the questionnaire at home, which usually took approximately 15 to 20 minutes. The respondents completed the questionnaire and returned it to the nurses. Some respondents could not read the questionnaire; here, the nurses explained the purpose of questionnaire and the questions, and then read each question and asked the respondents to make sure that they clearly understood each question. The respondents answered by themselves.

5.5 Data analysis

**Study I-III:**

Studies I, II, and III used qualitative latent content analysis, described by Graneheim and Lundman (2004), Graneheim, Lindgren and Lundman (2017). In the first step, the interviews were transcribed verbatim and read through several times to achieve an overall understanding; marking each sentence revealed the experiences and perceptions of depression. The text about experiences was then extracted and brought together into one text, which constituted the unit of analysis. In the second step, the text (the words, phrases, sentences, and paragraphs) was divided into meaning units that relate to the study aim. In the third step, the meaning units were condensed while still keeping the original essence of the text, and were then labeled with codes according to their content. In the fourth step, the various codes with similar content were grouped together and identified into subthemes related to the objectives of the study. Finally, in the fifth step, the subthemes were
abstracted, sorted, and formulated into themes. All authors repeatedly discussed the analysis process thoroughly until final agreement was reached.

**Study IV:**

Statistical analysis was carried out with Statistical Package for Social Sciences (SPSS) version 24. Each of the items was used in descriptive statistics; the frequency and percentage of each response of “True”, “False”, and “I don’t know” were presented. Descriptive statistics were also used to identify the main characteristics of the respondents. Data were checked for missing values.

Multinominal logistic regression was used to evaluate associations between level of population/public knowledge about depression among older people and each categorical variable, with a p-value of less than .05 regarded as significant. The multinominal (polytomous) logistic regression model is a simple extension of the binary logistic regression model. It is used when the dependent variable has more than two nominal or unordered categories, and is powerful in its ability to estimate the individual effects of continuous or categorical independent variables on categorical dependent variables (Wright, 1995). The dependent variable must determine the value of a variable as a baseline or reference group, and then compare the remaining values with the baseline category (Kaiyawan, 2013). In this study, the high level of knowledge about depression is the reference group.

Analytical procedures of multinominal logistic consist of the likelihood ratio chi-square test, which was used to determine model fitting. This determines the p-value. If it is less than .05, then the model fits the data significantly better than the null model. Additionally, the likelihood ratio chi-square test was used to evaluate the overall relationship between an independent and
dependent variable. A p-value less than .05 means that the variable has a significant overall effect on the outcome.

The Wald chi-square statistic was used to evaluate individual predictors of the level of knowledge about depression.

6. Ethical considerations

Study I (No. 1-15-2558), study III (No. 5-56-2560), and study IV (No. 5-57-2560) were approved by the Institutional Review Board of Boromarajonani College of Nursing, Chakriraj (BCN, Chakriraj); the Research Ethics Committee at Makaruk hospital approved study II (No. 118-2558). The procedures were in accordance with the Declaration of Helsinki, which protects participants' health and rights (World Health Association, 2013).

All participants were informed about the purpose of this study, their voluntary participation, and their right to withdraw from the study at any time without any consequence on their healthcare access or provision. All participants were asked for permission to publish the results solely for the benefit of academic purposes. After the participants agreed to participate in the research, they signed the informed consent form.

Vulnerable participants—the older people with depression in study II—were required to be protected during the interview. If the interview caused any inconvenience, a pre-arrangement was made that the participants would be referred to the general practitioner.

Due to the sensitive character of the interview questions, I carefully considered the pros and cons as a nursing researcher before conducting the research. As I was well aware that the situations might evoke negative emotions in participants, they were given the chance to call me later if needed.
The interviews were performed with a lot of respect and in a warm atmosphere, and interviewees expressed their gratitude for being listened to and taken interest in. No participants wanted to withdraw from studies I, II, or III.

The confidentiality of the data transcriptions was ensured by keeping them in a university computer that could only be accessed with a specific username and password of Mid Sweden University, and the data were assessed by only the first author. The information was confidential, and a code number was assigned to each participant for identification purposes when analyzing the data.
7. Results

The results of this study included the experiences and perceptions of psychiatric nurses (Study I), older persons with depression (Study II), family members (Study III), and it also included the population’s or public’s knowledge about depression among older people (Study IV), as shown in figure 5A.

![Diagram showing perspectives engaged between patients, families, psychiatric nurses, and population/public.]

Figure 5A. Experiences, perceptions, and level of knowledge about depression among older people in rural Thailand expressed from different perspectives.

The main results from the four studies about the phenomenon of depression in older people in a rural Thai area are synthesized under four main findings, as shown in figure 5B.
The study showed a strive to provide humanizing care. In this rural area, psychiatric nurses were responsible for taking care of older people with depression, both in the hospital and in the community. They screened, consulted, followed-up, and performed home visits that were consistent with diagnosis, treatment, and monitoring, as well as prevention. Although some problems—such as social and financial need—did not require direct nursing care, the nurses felt morally obligated to take action on behalf of the patient. Psychiatric nurses were the key profession who played the central role in caring for older people with depression.

Unfortunately, mental health resources were still lacking in rural areas. The results showed that general practitioners were often responsible for treating...
older people with depression, due to a lack of psychiatrists; the district hospital had only one or two psychiatric nurses. Moreover, older people with depression indicated difficulty in accessing mental health services, due to their remote geographic location and poor public transportation. Very few services were offered, and people had to travel far to reach them, as they are located at the periphery of the mental health organization. People in rural areas had limited access to mental health care.

In the investigated rural area, the knowledge about depression among older people was moderate. Most people in the rural area had a great deal of difficulty when recognizing clinical depression, and believed that clinical depression resulted from a Karmic punishment. Older people with depression were seen as a cause of trouble in daily life. It interfered with all aspects of daily life, for themselves, their family members, and their community. Depression affected family members’ working life. When depression occurred, the atmosphere was full of tension. The patients reported that they felt judged by others; and they felt stigmatized, they usually isolated themselves.

The results section below presented a summary of the main results of each study, beginning with studies I and continuing through studies II and III to study IV.
Study I:
Thai psychiatric nurses’ experiences and perceptions of their professional role when caring for older people displaying depressive symptoms

Psychiatric nurses’ experiences and professional role were mirrored in three themes: (i) managing a central role in the care of patients; (ii) conflicting interests between the professional needs of caregiving and other requests; and (iii) being compassionate beyond the professional role.

The theme “managing a central role in the care of the patients” consisted of two subthemes, as follows: being responsible for patient screening procedures, and acting in a life-saving manner. The theme “conflicting interests between the professional needs of caregiving and other requests” consisted of two subthemes, as follows: dealing with pressure due to expectations from various stakeholders, and advocating for holistic care of the patients. The theme “being compassionate beyond the professional role” consisted of three subthemes, as follows: feeling of relative bond, honor of acting as a savior for the patient, and frustration due to imbalance between stakeholder demands and nurse resources. Examples of the analysis process are shown in Table 2.

Table 2. Example of analysis process.

| Meaning units | I can’t screen for depression in all the older people in this district alone. ....... I then have to teach the method of screening elders with 2Q to the general nurses ............... how to do the basic screening, so they can help pre-screen the risk group and then send them to me for further screening with 9Q. After that, I would check the elder’s score, evaluate, record the data in the computer, and send that elder to see a physician. |
Screening for depression could not be done completely by one psychiatric nurse, so she taught nurses how to screen and confirm. They then recorded and sent the patients to a physician.

**Managing a central role in the care of the patients**

The psychiatric nurses described how they played an important role in preventive care, as well as in managerial work. They were responsible for performing all screening procedures, using 2Q and 9Q, to detect depressive symptoms in the entire community of individuals over 60 years of age. They could detect and recognize co-morbidity-related challenges in patients, such as insomnia, headache, dizziness, or various aches. They provided counseling about psychological and psychiatric problems from health care team.

**Conflicting interests between the professional needs of caregiving and other requests**

To provide care for the patients, the psychiatric nurses had to address many expectations from the health care team, the patients, and their relatives. The health care team—including the general practitioners and registered nurses—requested that they advise them on the difficulties related to mental health issues. The psychiatric nurses advocated for holistic care of the patients, including attending to unmet physical, social, and financial needs.

**Being compassionate beyond the professional role**

While caring for older individuals with depression, the psychiatric nurses felt close to the patients. They continuously noticed changes and patient
progression, going from severe depression to recovery. The psychiatric nurses were proud to be a part of a solution for the patients. They were sometimes frustrated due to imbalances between stakeholder demands and nurse resources, because the district hospital had only one or two psychiatric nurses.

**Study II:**

**Older Thai people’s perceptions and experiences of major depression**

Study II was based on older Thai people’s experiences of major depression. The finding were abstracted into two themes: (i) Leading a life in detachment, and (ii) inconvenience of obtaining mental health treatment. Each theme consisted of subthemes, as follows in Table 3.

Table 3. Overview of themes and subthemes.

<table>
<thead>
<tr>
<th>Themes</th>
<th>Subthemes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Leading a life in detachment.</td>
<td>Living with meaninglessness.</td>
</tr>
<tr>
<td></td>
<td>Holding distress in oneself.</td>
</tr>
<tr>
<td></td>
<td>Feeling judged by surrounded people.</td>
</tr>
<tr>
<td>Inconvenience of obtaining mental health treatment.</td>
<td>Sensing an unapproachable healthcare service.</td>
</tr>
<tr>
<td></td>
<td>Lacking knowledge about clinical depression.</td>
</tr>
</tbody>
</table>

**Leading a life in detachment**

The finding showed that older Thai people suffering from depression felt that they were living with meaninglessness. This meaninglessness became a
central part of their lives. Several participants experienced that they lacked energy and often thought that they did not want to live. They wanted to lie down or quietly sit on the bed almost the whole day. Furthermore, they had no energy to paid attention to things that they needed to do, such as cooking and washing. Moreover, older Thai people with depression usually held distress in themselves. They had the depressive symptoms for some time, but they did not understand that this were related to depression; instead, they withdrew from others and kept their distress to themselves. The participants shared that they could not understand what was happening to them, and therefore they were unable to explain it to the neighbors. Additionally, most participants expressed that suffering from depression led to feeling judged by other people around them. They were often seen as faking illness, because they appeared normal; thus, older people with depression have trouble living with their neighbors.

**Inconvenience of obtaining mental health treatment**

Older Thai people with depression revealed that they felt that healthcare services were hard to access and difficult to approach. Each sub-district had an HPH; however, they could not go to the hospital. Older Thai people with depression expressed that they were vulnerable. They tried to go to healthcare services by themselves, but it is difficult to travel and they live alone.

The majority of participants were unaware that they were experiencing depressive symptoms, due to lack of knowledge about the signs of clinical depression, and they thought that it would come and go by itself. Older people experiencing depression were often Buddhists, who believed in karma and that their illness was the result of an accumulation of merit and demerit. As one participant stated, “I was aggrieved and thought that I must have done
many bad things in past life, so I have to pay for them now”. Therefore, they handled their illness by making offers to receive better karma in this life and the next. Older people with depression only understood that they suffered from depression when they went to the hospital for physical illness.

**Study III:**

**Family members’ perceptions and experiences of older people displaying major depression**

Members of rural Thai families usually stayed in the home of their parents. They had an important role in providing care to older people. Study III focused on experiences and perceptions of family members who took care of older people with depression in a rural Thai area. Eleven participants were children of the patients, and two participants were spouses, and all aged 35-60 years (median 42.6 years). The findings revealed that depression as a disease was difficult to understand, and that it affected whole families. The findings abstracted their perceptions and experiences into two themes: (i) perceiving a traditional rural view on mental health, which consisted of two subthemes: lacking knowledge about clinical depression, and believing in karma may prolong the recognition depression; (ii) experiencing complexity in everyday life when caring for older depressed family members, which consisted of two subthemes: being co-suffering, and sensing interrupted in normal functions.

**Perceiving a traditional rural view on mental health**

The family members explored the difficulties of understanding clinical depression. They stated that older people with depression often displayed a physical illness. They did not recognize the depressive symptoms because they lacked sufficient knowledge about depression. Family members were
not able to identify depression correctly, and were not able to differentiate depression from bereavement. In one example, a participant states, “I started to notice that my mom was more lifeless. At that time, I understood that she must be very sad for my grandma’s death because they had stayed together almost all the time and from now on, my mom had to live alone in the house while the rest of us went to work.”

According to their belief in karma, most family members saw the current life including illness as a result of their own actions in previous life. Consequently, they did not search for alternative explanations.

**Experiencing complexity in everyday life when caring for older depressed family members**

Family members living with and providing care to older people with depression suffered both physically and psychologically in everyday life. Caring for sick relatives became a chronic stressor for family members, who might be at risk of developing depression themselves. In one example, a participant states, “After my mom got sick, it seem like my family got messed up.”

The depression of older people caused disturbances and distress for family members. It affected family members’ working life: “On a day that I saw her get so sad and not being able to talk to anyone, I would take the day off and stay with her.” Moreover, family planning for daily life was lost, because of the instability of depression as one participant states “I also let go of my orchard and rice farm and took my mom as my first priority and stayed with her.”
Study IV: 
Public knowledge about depression among older people

This study surveyed public knowledge about depression in older people in a rural Thai area. The results showed that respondents had moderate knowledge about depression. A majority of respondents was female (62.8%, n = 1,654; male 37.1%, n = 977). The age of respondents ranged from 18 to 75 years (mean = 48, SD = 15.59), with almost equal numbers in each group. A majority of respondents was married and had completed elementary education. More than half of the respondents (56.4%) were agricultural workers, and most of them (84.9%) reported no working experience in the healthcare.

The mean Depression in Late Life Quiz, Thai version score was 5.86 (SD = 1.68), and the score ranged of 0-12. The majority of the respondents (74.5%) correctly answered five to eight items measuring knowledge about depression among older people, meaning the respondents have a moderate knowledge about depression. The frequency and percentages of responses on the individual items of the Depression in Late Life Quiz, Thai version are present in Table 4.
Table 4. Descriptive information on the Depression in Late Life Quiz.

<table>
<thead>
<tr>
<th>Item (correct answer)</th>
<th>N and (%) of correct answers</th>
<th>N and (%) of incorrect answers</th>
<th>N and (%) of uncertain answers</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. It is normal for older people to feel depressed a good part of the time (F).</td>
<td>1,243 (47.2)</td>
<td>1,370 (52.0)</td>
<td>18 (0.7)</td>
</tr>
<tr>
<td>2. Memory problems may be a sign of depression (T).</td>
<td>1,242 (47.2)</td>
<td>1,370 (52.0)</td>
<td>20 (0.8)</td>
</tr>
<tr>
<td>3. Depression is easy to recognize in an older person who is physically ill (F).</td>
<td>732 (27.8)</td>
<td>1,860 (70.6)</td>
<td>38 (1.4)</td>
</tr>
<tr>
<td>4. Older people are more likely than younger people to say “I am depressed” (F).</td>
<td>898 (34.1)</td>
<td>1,706 (64.8)</td>
<td>27 (1)</td>
</tr>
<tr>
<td>5. A complete medical evaluation is needed to rule out physical reasons for depression (T).</td>
<td>1,982 (75.3)</td>
<td>584 (22.2)</td>
<td>64 (2.4)</td>
</tr>
<tr>
<td>6. Family and friends can usually help the depressed older person by telling him or her to “count your blessings” or “look at the bright side” (F).</td>
<td>1,229 (46.7)</td>
<td>1,366 (51.9)</td>
<td>34 (1.3)</td>
</tr>
<tr>
<td>Item (correct answer)</td>
<td>N and (%) of correct answers</td>
<td>N and (%) of incorrect answers</td>
<td>N and (%) of uncertain answers</td>
</tr>
<tr>
<td>-------------------------------------------------------------------------------------</td>
<td>-----------------------------</td>
<td>--------------------------------</td>
<td>-------------------------------</td>
</tr>
<tr>
<td>7. There is a higher suicide rate among the older than among younger adults (T).</td>
<td>729 (27.7)</td>
<td>1,852 (70.3)</td>
<td>50 (1.9)</td>
</tr>
<tr>
<td>8. It is common for older people to talk about potential suicide (F).</td>
<td>949 (36.3)</td>
<td>1,660 (63.0)</td>
<td>22 (0.8)</td>
</tr>
<tr>
<td>9. Most older persons who talk about committing suicide are not serious (F).</td>
<td>1,929 (73.3)</td>
<td>680 (25.8)</td>
<td>23 (0.9)</td>
</tr>
<tr>
<td>10. Health professionals often have difficulty diagnosing depression in older people (T).</td>
<td>1,159 (44.0)</td>
<td>1,355 (51.5)</td>
<td>115 (4.4)</td>
</tr>
<tr>
<td>11. If depression is severe, there is little the depressed person can do to help him or herself (T).</td>
<td>1,957 (74.3)</td>
<td>628 (23.9)</td>
<td>46 (1.7)</td>
</tr>
<tr>
<td>12. Depression among the older can be effectively treated with medication (T).</td>
<td>1,386 (52.6)</td>
<td>1,205 (45.8)</td>
<td>41 (1.6)</td>
</tr>
</tbody>
</table>

T = true; F = false.

Three-fourth of the respondents were able to answer questions 5, 9, and 11 correctly. Questions 1, 2, 3, 4, 6, 7, 8, 10, and 12 were answered correctly by 27% to 50% of the respondents. For 9 of the 12 items, more than 50% of the
respondents had incorrect answers. The highest percentage of incorrect answer (70.6%) was for Item 3 (“Depression is easy to recognize in an older person who is physically ill”). Most respondents (74.5%, n = 1,960) had a moderate level of knowledge about depression among older people, as shown below in Table 5.

Table 5. Level of knowledge score about depression in older people.

<table>
<thead>
<tr>
<th>Knowledge score (level)</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>0-4 (low)</td>
<td>533</td>
<td>20.2</td>
</tr>
<tr>
<td>5-8 (moderate)</td>
<td>1,960</td>
<td>74.5</td>
</tr>
<tr>
<td>9-12 (high)</td>
<td>138</td>
<td>5.2</td>
</tr>
<tr>
<td>Missing</td>
<td>2</td>
<td>.1</td>
</tr>
<tr>
<td>Total</td>
<td>2,633</td>
<td>100</td>
</tr>
</tbody>
</table>

In different values of each variable, the multinomial logistic regression model showed statistical significance of the model fitting ($\chi^2 = 64.968; p < .001$). This implies that at least one of the independent variables was a significant predictor of the level of public knowledge. Then, a likelihood ratio test was performed to evaluate the overall relationship between independent variables (Gender, aged, marital status, education level, occupation, and working in healthcare) and level of depression knowledge. In this case, education level was significantly associated with public knowledge about depression among older people. The statistic was significant ($\chi^2 = 20.687; p < .000$) as shown in Table 6.
Table 6. The overall relationship between independent variable and level of knowledge about depression.

<table>
<thead>
<tr>
<th>Predictor</th>
<th>-2log likelihood</th>
<th>Chi-Square</th>
<th>df</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intercept</td>
<td>794.670</td>
<td>.000</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>Gender</td>
<td>797.776</td>
<td>3.107</td>
<td>2</td>
<td>.212</td>
</tr>
<tr>
<td>Age</td>
<td>797.339</td>
<td>2.670</td>
<td>4</td>
<td>.615</td>
</tr>
<tr>
<td>Marital status</td>
<td>799.452</td>
<td>4.782</td>
<td>4</td>
<td>.310</td>
</tr>
<tr>
<td>Education level</td>
<td>815.356</td>
<td>20.687</td>
<td>4</td>
<td>.000***</td>
</tr>
<tr>
<td>Occupation</td>
<td>801.866</td>
<td>7.197</td>
<td>6</td>
<td>.303</td>
</tr>
<tr>
<td>Working in healthcare</td>
<td>796.325</td>
<td>1.655</td>
<td>2</td>
<td>.437</td>
</tr>
</tbody>
</table>

Model evaluation

<table>
<thead>
<tr>
<th></th>
<th>-2log likelihood</th>
<th>Chi-Square</th>
<th>df</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intercept only</td>
<td>859.637</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Final</td>
<td>794.670</td>
<td>64.968</td>
<td>22</td>
<td>.000***</td>
</tr>
</tbody>
</table>

*** p < .001

In the final model analysis, level of public knowledge about depression among older people was affected by the education level as ‘secondary to less than bachelor’ (Wald test = 8.047; p < .01). Regarding the three education levels, interpretation should be based on the reference group of high level of education (bachelor and higher). If education level changes from lower to higher, the odds for level of knowledge about depression increase. For the low of knowledge about depression, if the education level changed from ‘secondary to less than bachelor’ to ‘bachelor and higher’, the odds of the knowledge being at the high level increased by 3.919, and if the education
level changed from ‘elementary’ to ‘bachelor and higher’, the odds of the knowledge being at the high level increased by 1.915 (Table 7).

Table 7. The knowledge about depression differed significantly among the three different education level.

<table>
<thead>
<tr>
<th>Knowledge about depression</th>
<th>B</th>
<th>S.E.</th>
<th>Sig</th>
<th>Odds ratio</th>
<th>95% CI.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Low level (0-4)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Elementary</td>
<td>.650</td>
<td>.470</td>
<td>.167</td>
<td>1.915</td>
<td>.762</td>
</tr>
<tr>
<td>Secondary to less than</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>bachelor</td>
<td>1.366</td>
<td>.481</td>
<td>.005**</td>
<td>3.919</td>
<td>1.525</td>
</tr>
<tr>
<td>Bachelor and higher</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Moderate level (5-8)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Elementary</td>
<td>-.177</td>
<td>.408</td>
<td>.665</td>
<td>.838</td>
<td>.376</td>
</tr>
<tr>
<td>Secondary to less than</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>bachelor</td>
<td>.717</td>
<td>.424</td>
<td>.091</td>
<td>2.048</td>
<td>.892</td>
</tr>
<tr>
<td>Bachelor and higher</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**p < .01

a. The reference category is high level (9-12)

Moreover, for the moderate of knowledge about depression, if the education level changed from ‘elementary’ to ‘bachelor and higher’, the odds of the knowledge being at the high level increased by .838, and if the education level changed from ‘secondary to less than bachelor’ to ‘bachelor and higher’, the odds of the knowledge being at the high level increased by 2.078 as also shown in Table 7.
8. Discussion

The overall purpose of the study was to gain deeper knowledge on older people with depression in rural Thailand. One aim was to gain more understanding by collecting experiences and perspectives from individual psychiatric nurses (study I), patients (study II), and family members (study III). Another aim was to study the knowledge of the general population about older people with depression (study IV). The following section will discuss these findings in relation to previous studies, methodological consideration, and conclusion included the implications for mental healthcare authorities dedicated to the improvement of caring for older people in rural areas of Thailand.

8.1 Older people with depression: Challenges in rural Thai areas

Striving to provide humanistic care

Psychiatric nurses play a central role in taking care of older people with depression. The psychiatric nurses are responsible for performing 2Q and 9Q procedures to detect depression. While caring for older individuals with depression, psychiatric nurses referred to the patients as if they were their relatives, such as uncles or aunts (*Feeling of relative bond*). They sat closely to the patients and casually talked to them about general topics in order to gain their trust in a warm and attentive atmosphere (study I), which shows that the interpersonal relationship between nurses and patients is important to enhancing the well-being of patients (Peplau, 1962). Additionally, older people with depression also received caring from their children, according to Thai culture and Buddhism doctrine (study I, II, and III).
For the psychiatric nurses, they not only engaged in therapeutic work, but they also were concerned about the humaneness of treatment of their patients *(Advocating for Holistic Care of the Patients)*. If the nurses were sincere and friendly towards patients, friendship arised, and then successful treatment may occur (Arnold & Underman-Boggs, 2011). In the results from study I, the psychiatric nurses also monitored the conditions of their patients by visiting them at their homes, outside of work hours. They often identified problems related to unmet physical, social, and financial needs. Although these problems did not need direct nursing care, a holistic mindset caused nurses to be concerned, and they felt morally obligated to take actions on behalf of the patient.

Depression in older people could be difficult to identify, due to the wide overlap between symptoms associated with aging and poor physical health, and the somatic manifestations of depression (Leadbetter, 2015). However, psychiatric nurses could often identify their symptoms with 9Q, as the results in study I showed. Although it may be difficult for general practitioners and registered nurses to interpret depressive symptoms as depression (Wolpert, 2001), psychiatric nurses could evaluate and provide primary treatment for depression, which was positively associated with chronic diseases like diabetes and hypertension. This means that psychiatric nurses could help save the lives of their patients *(Acting in a Life-Saving Manner)*. For instance, although a patient with diabetes was treated continuously, the blood sugar level was abnormal. The general practitioner referred the patient to the psychiatric nurse; she established an interpersonal relationship with the patient, evaluated depressive symptoms, educated and counseled the patient, and reported back to the general practitioner.
Afterward, the general practitioner appropriately treated the condition, and the patient recovered fully. This professional role of psychiatric nurses may lead to these patients getting the proper treatment. This result regarding professional role was in line with the role and function of psychiatric nurses in clinical practice (Cowman, Farrelly, & Gilheaney, 1997).

Older people with depression were evaluated every two weeks or every month. Here, the psychiatric nurses continuously noticed changes and patient progressions, going from severe depression to recovery. In study I, the results showed that psychiatric nurses were proud to be a part of a remedy for the patients (Honor of Acting as a Savior for the Patient), and the patients felt comfortable disclosing information and asking questions. This means that the nurses and patients had good relationship, leading to working together to achieve better outcomes (Peplau, 1988).

**Being burdened in daily life**

Older people with depression affected both themselves and their family members. The findings showed that the patients felt like they were **living with meaninglessness, holding distress in oneself, and feeling judged by surrounding people** (study II). For family members, they had experienced co-suffering, and sensing interrupted in normal function (study III) when living and caring for older people with depression.

The findings indicated that when older people suffer from depression, they felt hopeless. They experienced that they lacked the energy to be alive (**living with meaninglessness**). They wanted to lie down, and they lost interest in daily activities as well as motivation to live, and they planned dying. Although they could perform chores such as laundry, cleaning, and cooking,
they did not pay attention to them. This was similar with previous studies that showed older African-American women describing depression as being related to sadness and suffering (Black, White, & Hannum, 2007). Older people reported that they were not able to initiate and maintain relationships with friends and their relatives. The relatives spent intimate time with older people; however they were lonely, and expressed that they were holding distress in themselves. There was a significant correlation between loneliness and depression in older people (Aylaz, Akturk, Erci, Ozturk, & Aslan, 2012; Peerenboom, Collard, Naarding, & Comijs, 2015). Feelings of loneliness were related to suicidal ideation in older people (Bennardi et al., 2017). Depression was the single-most important predictor of suicide attempt (Indu et al., 2017). This showed that older people with depression need social support. Social support may be provided from many sources, such as family, organizations, pets, friends, coworkers, and neighbors (Taylor, 2011). The positive effect of social support on depression among older people has been reported by previous studies (Liu, Gou, & Zuo, 2016).

Older people diagnosed with depression revealed that they were feeling judged by surrounding people. They thought that other people, such as friends and their children, saw them as a weight or a burden. They were not the same to each other, which could lead to them feeling stigmatized. This was in line with another study that showed that self-stigma was positively correlated with depression (Oakley, Kanter, Taylor, & Duguid, 2011). Stigma has been identified as a main factor associated with the lack of healthcare treatment of depression, and the stigma of mental illness may impair achievement of personal aspirations (Corrigan & Wassel, 2008).
As mentioned above, family members were affected by caring for older people with depression; they experienced *being co-suffering*. In study III, family members revealed that they were distressed, upset by either the clinical depression of older people or by physical illness themselves. This indicates that it makes sense to apply a Family System Nursing view (FSN) to the results, seeing the family as a whole system and unit of care who is influenced by the older relative’s mental illness. The family is a set or system of relationships that are interconnected, and the overall family system has the responsibility to take care of its individual members (Wright & Leahey, 2013). Mental healthcare providers should keep in mind how important it is to involve the whole family in the care process.

While caring for older people with depression, family members revealed that they were *sensing interrupted in normal functions*. Everyday life in the families was unstable, because of the uncertainty of depressive symptoms of the patients. This was similar to a previous study wherein the children felt uncertain about their parent’s condition and did not think about an illness such as depression as an explanation (Ahlstrom, Skarsater, & Danielson, 2009). The family members in study III stated that depression also affected their working life. They stopped working in the rice paddies to take care of their parents, even if the rice was damaged. They identified themselves as being burdened. This finding was consistent with the results from Polenick and Martire (2013). This result may show that mental healthcare services should provide psychosocial support to help patients and their family members recover after a crisis has disrupted their lives, to enable families to bounce back from the impact of crises, and to help them to deal with such events in
the future (International Federation Reference Centre for Psychosocial Support, 2009).

Moreover, social support is important in reducing the association between physical impairment and depression in older Thai people. Enhancing social support and improving healthcare facilities should be emphasized in interventions to prevent depression in older people (Suttajit et al., 2010).

**Lacking mental health resources**

Older people in Thailand are screened for depression at least once a year, according to mental health policy (Department of Mental Health, 2018). Psychiatric nurses are responsible for patient screening procedures that detect depressive symptoms in the whole community of individuals over 60 years old. The psychiatric nurses revealed that they could not be responsible for all the screenings. This might be because the number of older people is rising rapidly, and the population is large (Bureau of registration of administration, 2018). No psychiatrists are available in a number of provincial general hospitals. Therefore, general practitioners play a crucial role in detecting and treating mental illnesses (Lotrakul & Saipanish, 2006).

In this study, older patients have often been referred to the psychiatric nurse from a general practitioner or general nurse, for whom the depressive symptoms may be difficult to interpret as depression (Wolpert, 2001), as they were multidisciplinary consultant in the district hospital. It became obvious that psychiatric nurses are dealing with pressure due to expectations from various stakeholders, as the results showed. Psychiatric nurses had high expectations placed upon them from stakeholders, including patients and their families. However, the psychiatric nurses needed to take holistic care of
the patients. Holistic care is believed to be the heart of the science of nursing; it is an approach to healing that considers the whole person—body, mind, spirit, and emotions (Strandberg, Ovhed, Borgquist, & Wilhelmsson, 2007). Due to the fact that the district hospital has only one psychiatric nurse, they revealed *frustration due to imbalance between stakeholder demands and nurse resources*. The psychiatric nurses were responsible for their work overload, they could not appropriately care for the patients, and they were worried and frustrated, as shown in study I. These emotions can lead to burnout; a previous study found that higher psychiatric nurse-to-patient staffing ratios were one of the factors that cause psychiatric nurse burnout (Hanrahan, Aiken, McClaine, & Hanlon, 2010). In Thailand, previous studies investigated nurse work environment and its association with nurse job satisfaction, turnover intentions, and burnout in Thai hospitals. Study findings indicated that many nurses in these units were dissatisfied with their job and intended to leave their present positions. The lowest of work environment issues was staffing resource and adequacy. Almost half of nurses report burnout, which was one of the important factors impacting patient care and patient safety. (Nantsupawat et al., 2017). Therefore, policymakers should consider the lack of mental health resources in their development plans for mental health.

**Lacking knowledge about depression**

Older people diagnosed with depression were *lacking knowledge about clinical depression*. They thought that symptoms were an inevitable part of the aging process and a result of karma affecting the present state, so even when they were depressed, disheartened, and overwhelmed for a year or two,
they did not want to seek healthcare services, as the results showed in study II. This result was consistent with philosophical Buddhism constructs of the doctrine of karma (Wongtes, 2000), which basically translates to cause and effect: if people do something wrong now, it will catch up with them in a later life. Many Thai Buddhists believe this, as well as family members from study III.

The families were believing in karma may prolong the recognition depression. This meant that due to the traditional rural belief in in combination with the doctrine of karma they did not look for alternative understanding and reasons. The older patients were also very subservient to karma, which means that they often accept whatever is given to them without complaining. They lived on the moral and ideals that stated they will get a better life in their next reincarnation. If they are poor or unwell in this life, it is because the consequence of a bad deed in a previous life. They did not want to seek healthcare services even though they were depressed, disheartened, and overwhelmed for a long time. This was in line with some studies, which found that families use the law of karma and reincarnation as their frame of life; therefore, they engaged in karmic healing activities to end suffering, promoted a peaceful and calm death, and ensured a better next life (Nilmanat & Street, 2014). Thai Buddhists with type 2 diabetes adjusted their daily behavior and the management of their disease in ways that often related to their religions (Lundberg & Thrakul, 2013). Thai Buddhist people usually applied Buddhist Dharma to deal with suffering, especially life crisis and illness. In reality, illness, a synonym for disease, is any condition which results in the disorder of a structure or function in a living organism.
The results of knowledge about clinical depression were in accordance with the previous studies, which found that more than half of older Korean-American adults seriously lacked knowledge about various aspects of depression (Jang et al., 2011); for instance, older people were not aware of the signs and symptoms of depression. In this study, older people suffered from severe depression, to the extent that they planned to die, which conforms with a previous study in northern Thailand that found that the prevalence of depression was 23.5% (n=81), and a suicide risk was reported for one-third of older people in long-term care facilities (Wongpakaran & Wongpakaran, 2012). This can be an immediate concern for mental healthcare providers when providing needed knowledge about depression.

According to the Level of public knowledge about depression among older people in study IV, the result showed a mean score of public knowledge about depression among older people of 5.86, ranging from 0 to 12. This indicated that the population in a rural Thai area had moderate knowledge level. This result was in accordance with a previous study (Zylstra & Steitz, 1999; Jang et al., 2011). The results also showed that nine of the twelve items had incorrect answers from more than 50% of the respondents, which in line with a previous study that found that a large proportion of people in Taiwan (43.4%) perceived depressive symptoms as not being an illness, but just a bad mood (Wu, Liu, Chang, & Sun, 2014). Additionally, the results of study IV showed significant association between education level and knowledge about depression. If education level changes from lower to higher, the odds for level of knowledge about depression increase. This result may indicate the need for enhanced mental health literacy in rural areas.
Rurality and traditional way of perceiving may be interconnected with the level of mental health literacy. While, the mental health literacy also is interconnected to the possibility to provide a humanistic and mental health care. This again is related to the level of education among the health care providers. There need to be a satisfactory level of educated psychiatric nurses to offer the quality and quantity of interpersonal relationships and support to older patients with depression in order to ease their suffering and break their isolation and detachment, and their families’ burdens. The family/relatives and the surrounding society can be supported and taught by psychiatric nurses and by public mental health promotions campaigns. There must be added more resources to the system, drawn as a circle Figure 5c below, to change the level of knowledge about depression in late life and the consequences hereof.
Figure 5C. The connecting on the phenomenon of depression among older people in rural Thailand.

A higher level of knowledge may change to perception toward a more non-traditional belief about mental illness in rural Thailand.

8.2 Methodological consideration

This study used various methodological approaches that consist of qualitative (Study I, II, III) and quantitative (Study IV) approaches. I must consider the methodological considerations regarding both quantitative and qualitative research.

8.2.1 Qualitative research

A qualitative inductive research design was used in studies I, II, and III. The qualitative method is best for researching many “how” questions of human
experience (Denzin & Lincoln, 2017). The aim of my thesis is to seek in-depth understanding of psychiatric nurses’ experiences (study I), patients’ experiences (study II), and family members’ experiences (study III) of older depression. The important issue in qualitative research is trustworthiness, which consists of four aspects: credibility, confirmability, dependability, and transferability (Graneheim & Lundman, 2004; Graneheim et al., 2017) that explained as follows.

**Credibility**

Credibility is one of most important aspects in establishing trustworthiness (Lincoln & Guba, 1985), and is related to the confidence associated with the data and the interpretation of the findings. The aim of this study is to gain deeper knowledge on the phenomenon of depression in older people in a rural Thai area.

In order to establish credibility, I collected data from a variety of populations (study I-III). The participants have had truly varying experiences with this phenomenon, as mentioned by Graneheim and Lundman (2004), and Graneheim et al., (2017). Due to the desire for an information-rich case, the participants were recruited and selected using purposive sampling suitable for qualitative research (Polit & Beck, 2016). Selecting the most appropriate method for data collection and the amount of data is important in establishing credibility (Graneheim & Lundman, 2004; Graneheim et al., 2017). In each study, the data was collected through face-to-face, individual, in-depth interviews (Polit & Beck, 2016), and each interview session took approximately 40-90 (median 55) minutes, generating 150-160 pages of text. During the data collection and analysis processes, the researcher’s influence should be reflected on (Polit & Beck, 2016). Since 2008, I have been a
psychiatric nurse working with patients experiencing depression in the district hospital where the data were collected for studies I, II and III. I may have introduced a possible risk of pre-existing authority-relation issues during the interviews. However, I started from a good relationship with the participants, listened carefully, maintained awareness of my experiences during the whole process, and encouraged participants to talk freely, seeking clarification where needed (Doody & Noonan, 2013).

To analyze the data (study I-III), qualitative latent content analysis, described by Graneheim and Lundman (2004), Graneheim et al., (2017) was used. To enhance credibility, the interviews were first transcribed verbatim and translated into English. The transcripts were read through several times to understand the whole text. My supervisors and I discussed the meaning units—including condensed meaning units, coding, subthemes, themes, and critical analysis—in the whole process until we achieved consensus. Each study showed an example of the analysis process and a quotation from the transcribed text.

**Confirmability**

Confirmability refers to the confidence that the research findings are based on the participants’ narratives and words. To establish confirmability, all data were transcribed verbatim in Thai, and the transcriptions were read several times. The data were then translated from Thai into English, and a professional Thai-English translator corroborated that the Thai meanings were accurately represented in the English version. The authors read the interviews, checked the coding of condensed meaning units, and jointly discussed the analysis and the results throughout the analytical process. The
findings of studies I-III were presented back to participants, to verify that the findings were an accurate representation of the participants’ experiences.

**Dependability**

Dependability is important to trustworthiness because it establishes the study’s findings as consistent and repeatable. Dependability closely corresponds with reliability in quantitative research (Lincoln & Guba, 1985); it refers to the extent to which the findings were consistent, or how much the data might change over time (Graneheim & Lundman, 2004). To address dependability, I interviewed some participants twice, and asked them to review the findings (subtheme) and agree with the results that linked to their experiences, in order to conduct a member checking. This is important to ensure that nothing was missed in the study. To achieve dependability, the researchers' pre-understandings can influence the collecting data: the way questions and follow-up questions are asked: and how the interviewees' narratives are perceived and interpreted (Graneheim et al., 2017). I am a psychiatric nurse as well as a researcher, with a prior background working with patients experiencing mental health and psychiatric problems, conducted the individual interviews. The research team checked all data through the whole analysis process until consensus occurred, and then the study reported research design and implementation, including the methods, the details of data collection, and the analysis process.

**Transferability**

Transferability is synonymous with generalizability, or external validity, in quantitative research. Transferability refers to the extent to which the findings can be transferred to other settings (Graneheim & Lundman, 2004; Graneheim et al., 2017). To gain transferability, the study gave a clear description of the
context, participants, data collection, and analysis process. The findings were presented with representative quotations. Lincoln and Guba (1985) stated that: “It is, in summary, not the naturalist’s task to provide an index of transferability, it is his or her responsibility to provide the data base that makes transferability judgements possible on the part of potential appliers.” The findings of studies I-III could be considered transferable to other rural areas of Thailand, because the authors have had experiences of caring for elder people with depression in other areas. The interpretation could be related to clinical aspects that also support transferability.

8.2.2 Quantitative research
The aim of study IV was to study the current level of public knowledge about depression among older people. Cross-sectional designs were used for population-based surveys (Floyd & Fowler, 2014), and I used a cross-sectional research design. The study took place at a single point in time and provided information about what was currently happening in a population. Cross-sectional studies cannot be used to determine cause and effect, and they involve manipulating variables (Floyd & Fowler, 2014). Cross-sectional studies generally require a large number of respondents, so the sample size in study IV was 2,900. The respondents were recruited using multi-stage random sampling, to avoid the problems of randomly sampling from a population that is larger than I can handle, limited as I am by funding and time. The participants in a cross-sectional study are selected based on the inclusion and exclusion criteria set for the study.

Reliability
The Depression in Late Life Quiz, Thai version was used in this study to assess individuals’ level of knowledge about depression. One concern was the
internal validity of the quiz. The internal consistency was acceptable in previous uses of the instrument. The instrument’s reliability was tested before collecting the data (N = 40); the internal consistency was also tested and found to be .702.

**Validity**

In this study, the Depression in Late Life Quiz was translated to Thai through the translation/back-translation methodology inspired by Brislin (1970). Afterward, 5 experts—including one psychiatrist, two advanced nurses practitioner (in psychiatric nursing), and two psychologists—conducted a consensus validation on the Depression in Late Life questionnaire, Thai version. The questionnaire was revised until consensus was achieved among all persons involved.

The questionnaire contained two sections, sociodemographic information (6 items) and knowledge about depression (12 items). Each item on knowledge about depression was evaluated as “True,” “False,” or “I don’t know.” This study defined the level of knowledge about depression as the dependent variable divided into three levels (low, moderate, high). For this reason, I chose the multinomial logistic regression for analysis.

To achieve a high quality of data, the first researcher trained research assistants regarding techniques for data collection and how to use the questionnaires, including training to help respondents who could not read. In the case of the latter, the nurses explained the purpose of questionnaire and the questions, and then read each question and asked the respondents to make sure that they clearly understood each question. Afterwards, the respondents answered by themselves. All respondents agreed to participate in the study. The respondents self-administered the questionnaire and returned it to the
nurses, who were not allowed to force respondents to answer the questionnaires. After the questionnaires were sent back to the nurses, all questionnaires were sent to the first researcher. The data collection process showed a high response rate (90.89%). According to external validity, the results can be generalized to other settings with a similar context, such as other rural areas.

8.3 Conclusion
The overall aim of the study was to gain deeper knowledge on the phenomenon of depression in older people in rural Thai areas. The findings of this thesis contribute to the understanding of how experiences and perceptions of this phenomenon vary. The results showed the major themes of: psychiatric nurses wanted to provide a humanized care to older people with depression; mental health resources are lacking; knowledge about depression among older people is lacking; and daily life is burdened. Another finding is that the current level of public knowledge about depression is moderate.

8.3.1 Implications for mental health authorities
In the next ten years, the number of older people in Thailand will increase to approximately 15 million. To improve identification and treatment of depression among older people, policymakers should provide a strategy that coordinates and integrates mental health services, especially Department of Mental Health and Department of Older Persons. Department of Older Persons has strategies on health, social, and economic security that could combine with strategies on mental health.

The findings of the first study reveal the inadequate number of psychiatric nurses in rural areas. This might lead to a lack of quality of care for older
people with depression. Policymakers and healthcare providers will hopefully gain knowledge from this research project and use it to improve the healthcare system regarding treatment and support to older people with depression.

8.3.2 Implications for practices
The results of thesis regard the experiences and perceptions of depression from psychiatric nurses caring for older people with depression, as well as those of patients and their family members. These results can inform the development of policies and programs that enhance the quality of care for older people with depression. Programs for patients and their family members may focus on helping to seek mental health services, providing psychosocial support for patients and their families, and reducing depressive symptoms of patients. The most important program should be improving knowledge about depression in rural Thai areas. Moreover, I will develop a campaign to improve mental health literacy in secondary schools.

8.3.3 Idea for future research
To gain a comprehensive view of the phenomenon of depression in older people in rural Thai areas, future studies are necessary. For example, future studies will provide an understanding of how general practitioners describe their experiences and their perceptions when caring for older people with depression. I also plan to further examine the gender aspects of experiencing depression. Additionally, future research should focus on grandchildren experiences of depressed older family members.
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