Striving to maintain well-being:

Self-management of chronic pain by elderly people living in rural communities in North-East Thailand

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I hereby certify that the work embodied in this thesis is the result of original research and has not been submitted for a higher degree to any other university or institution.

(Signed) …………………………………………………………….

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ABSTRACT

Chronic pain is a common problem among elderly people. Proper self-management of chronic pain is crucial in promoting general well-being; however, elderly people who live in Thai rural communities have limited access to self-management resources. Understanding the way these people self-manage chronic pain within their life context will provide guidance on how to support them to achieve effective self-management, which in turn, enhances their well-being.

The broad aim of the study was to describe and understand the ways in which elderly people, aged 60 years or over, who lived in rural communities in north-east Thailand, self-managed their chronic pain. The specific objectives were to: examine the strategies that they used to self-manage their chronic pain; identify the factors that moderated the way they self-managed their chronic pain; develop a substantive theory that explained the experience of self-managing chronic pain; and evaluate the developed theory within the context of current literature in the area.

Participants were 32 elderly people (six males and 26 females), aged 60 years or over who had suffered pain for at least six months. The setting for the study was three villages in three provinces in the north-east region of Thailand. Strauss and Corbin's (Corbin & Strauss, 2008; Strauss & Corbin, 1990, 1998) approach to grounded theory was used to inform data collection and analysis, incorporating interviews, observations and a questionnaire.

The findings showed that chronic pain had a major impact on the daily life of participants. They experienced challenges in simultaneously dealing with pain and meeting the requirements of their daily lives. A substantive theory, *Striving to maintain well-being: adapting to chronic pain*, was generated from the study. It is this process that the elderly people used to self-manage their chronic pain. The persistence of pain necessitated adaptation in their lives in order to preserve an acceptable level of well-being, similar to health-illness transition espoused by Meleis (2010). The theory comprises three transitional phases: *undergoing wellness–illness change*, *coming to terms with chronic pain*, and *modulating autonomous–dependent pain management*. Three categories overarched by the core process are *Making sense of pain*, *Seeking the* *most suitable treatment*, and *Integrating treatment into everyday life*. The ways the elderly participants comprehended their chronic pain situation, sought and identified the most suitable pain treatment, and integrated it into their lives, were shaped by their cultural beliefs, accumulated life experiences, and access to health information and services.

Overall, the study findings suggested several strategies to promote elderly people's self-management of pain and to prevent undesirable outcomes. In particular, the findings have implications for improving the distribution of health information, providing greater access to health care, and making pain treatment more affordable and acceptable. Facilitation of integration of pain treatment into their re-defined lives was also recommended.

Keywords: Self-management, chronic pain, elderly people, rural, north-east Thailand.

KEY TO TRANSCRIPTS

Categories	Italics are used for all category names
Direct quotations	Regular font style is used to present direct quotations from the literature
Examplars	Regular font style is used for all exemplars from participants' interviews
Pseudonyms	Pseudonyms are used when referring to all names, including study participants, villages, and other names that appear in exemplars
I: 14	I = interview
	14 = interview number
O: 5	O = observation
	5 = observation number
[square brackets]	Comments to provide explanation or clarity added by the researcher
…	Part of a sentence is omitted
….	Words omitted from more than one consecutive sentence

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PART I

CHAPTER ONE

INTRODUCTION

1.1 INTRODUCTION

This thesis presents a study that investigated the way elderly people living in rural communities in north-east Thailand self-managed their chronic pain. The study took place in three villages, each from separate provinces, in the north-east region of Thailand. Strauss and Corbin's (Corbin & Strauss, 2008; Strauss & Corbin, 1990, 1998) approach to grounded theory was used as the methodological framework for the study. Interviews, observations, and questionnaires were used as data sources. The thesis is divided into two parts. Part A discusses general background information, literature review, methodology, and methods of study. Part B presents the findings of the study, including the theory that emerged from the study, and a discussion of the findings and the theory.

In this chapter, an overview of the study is presented. Background literature related to the research topic is introduced. This is followed by a justification for the study, an outline of the research question and aims of the study, and definition of terms used in the study. In the final section, an overview of the structure of the thesis is provided.

1.2 BACKGROUND

Population ageing

Population ageing, also known as demographic ageing and global ageing (Anderson, 2011), refers to "the shift in age distribution toward older ages" (Bengtsson, 2010, p. 1). It is a global phenomenon (World Health Organization, 2010). The proportion of elderly populations in the world has increased from 8.2% in 1950 to 10% in 2000, and is predicted to grow further to 15% and 21% in 2025 and 2050 respectively (Mujahid, 2006). The rate of increase in elderly populations in developing countries is double that of developed countries (Kinsella & He, 2009; Mujahid, 2006; National Institute on Aging, 2007). South-East Asian countries, in particular, are projected to account for the greatest proportion of this increase in the first half of this century (Mujahid, 2006).

In Thailand, the population structure has altered as a result of changes in the birth rate and life expectancy. The birth rate has decreased from 25.8 per 1,000 population in 1980–85 (WHO, 2008) to 13.0 per 1,000 population in 2010 (Index Mundi, 2010a), leading to a decline in population growth from 2.65% in 1970–80 (The National Statistical Office Thailand, 2000) to 0.65% in 2010 (Central Intelligence Agency, 2010; Index Mundi, 2010c). At the same time, life expectancy at birth for Thai individuals has increased continuously (WHO, 2009), from 63.1 years in 1980 to 73.1 years in 2010 (Index Mundi, 2010b). Consequently, the demographic structure of the population is changing from a predominantly young age to an ageing population (Chunharas, 2009; Hamid, 2010; Wapathanawong & Prasarthkhul, 2006). The number of Thai elderly (aged 60 years or over) has increased from 1.2 million in 1960 (Knodel & Chayovan, 2009) to 7.8 million in 2011 (Institute for Population and Social Research, 2010), and is estimated to reach 11 million by 2020 (Ageing Thai Organization, 2004; Knodel & Chayovan, 2009). Numerous studies have reported an increasing trend of elderly people in the population, rising from 4.6% in 1960 to 9.4% in 2000 (Knodel & Chayovan, 2009). The proportion was 12.2% in mid 2010 (Institute for Population and Social Research, 2010) and is projected to increase to 17.5% by 2020 (Knodel & Chayovan, 2009), and 30 % by 2050 (United Nations, 2006).

1.3 JUSTIFICATION FOR THE STUDY OF SELF-MANAGEMENT OF CHRONIC PAIN

While the number and proportion of elderly people in the Thai population have been growing continuously in recent decades (Ministry of Public Health Thailand, 2007a), chronic pain is an increasingly common health problem that has adverse effects on the well-being of this age group (Ampanwong, 2000; Breivik, Collett, Ventafridda, Cohen, & Gallacher, 2006). The Thai health policy and strategy for providing care aim to maximise people’s health and well-being (Ministry of Public Health Thailand, 2007a). To achieve the goal of helping elderly people suffering chronic pain to maintain their optimal well-being, good quality care for chronic pain is necessary. The Thai elderly health policy also aims to encourage elderly people to have adequate knowledge about self-management and to provide them with comprehensive public health care (Kamnuansitpa, Wongthanavasa, Bryan, & Prommo, 1999).

Several studies claim that self-management plays a vital role in maintaining the well-being of individuals with chronic illness (Department of Health and Ageing, 2009; Wright, Barlow, Turner, & Bancroft, 2003). For example, Walker, Swerissen and Belfrage (2003) indicate that health care for many illnesses relies primarily on self-management, especially when the presenting conditions require minimal health personnel involvement (such as the common cold). Self-management also remains a significant component in conditions that necessitate considerable services from health personnel (such as critical illnesses). In the Thai context, studies also indicate that elderly people's health behaviours influence their well-being (Piriyapun, 2009; Tangpaisarn, Punchuea, Oraboot, & Sridach, 2007). In particular, Sodabunlu (2002) reports that self-care before having an illness[1] and self-management after suffering illness[2] have important influences on elderly Thais' well-being. Another study reveals that some Thais still lack knowledge and skills for self-care and self-management (Boonmongkul, Chantrupant, Kitsomeporn, & Sringenyuang, 2002).

Similar to other chronic illnesses, self-management is crucial for people experiencing chronic pain (Ersek, Turner, Cain, & Kemp, 2004; May, 2010). Effective self-management can help promote wellness in elderly people suffering chronic pain, whereas inappropriate self-management can contribute to severe and life threatening adverse effects (Ampanwong, 2000; Phaholphophayahasena Hospital; Preechanont, 2007). For example, side effects of anti-inflammatory drugs include gastrointestinal bleeding, anaemia, seizures, and coma (Ampanwong, 2000; Skidmore-Roth, 2008). Elderly people who have renal dysfunction may develop renal failure from using these medications (Ampanwong, 2000; Skidmore-Roth, 2008). As a result, a key strategy to promote the well-being of elderly people experiencing chronic pain is to encourage effective chronic pain self-management.

While researchers claim that effective self-management incorporates several key factors, including accessible health care services (Lawna & Schoob, 2010) as well as physical, psychological, material, transportation and financial resources (Bair et al.,

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[1] 'Self-care,' in this context, refers to tasks performed by healthy people to maintain their health status. See Section 2.4.1 'Definition of self-management,' Chapter Two 'Literature review,' for more information.

[2] 'Self-management,' refers to activities that individuals with particular health problems instigate to reduce effects of their illness and maximise their state of health and well-being (Clark et al., 1991; McGowan, 2005). See Section 2.4.1 'Definition of self-management,' Chapter Two 'Literature review,' for more information.

2009; Steverink, Lindenberg, & Slaets, 2005), elderly people who live in rural communities in north-east Thailand have limited access to health care services and other resources (Ministry of Public Health Thailand, 2007a). This can contribute to their difficulties in self-managing chronic pain. Identification of elderly people’s behaviours in dealing with chronic pain within their social and psychological contexts is important to improve self-management, which in turn helps maintain their well-being (Steverink et al., 2005). The provision of quality health care services for the elderly requires a clear understanding of their health problems as well as the context in which they live, and important aspects of a nurse’s role in elderly care are to support self-management (Albert, 2009; Kronenfeld, 2004; McEwen & Pullis, 2009). However, little is known about the management of chronic pain in elderly people living in rural communities in north-east Thailand. This study seeks to understand how the elderly people in these communities self-manage chronic pain within their social and psychological contexts, and to identify determinants that influence this process. The outcomes of the study will help increase understanding of how elderly people living in the particular setting of this study and other similar settings deal with chronic pain, and provide guidance on how to encourage them to practise effective self-management and maintain their well-being.

1.4 RESEARCH QUESTION

How do elderly people living in rural communities in north-east Thailand self-manage their chronic pain?

1.5 AIMS OF THE STUDY

The broad aim of the study is to describe and understand the ways in which elderly people aged 60 years or over, who live in rural communities in north-east Thailand, self-manage their chronic pain. The specific objectives are to:

1. examine the strategies that they use to self-manage their chronic pain;
2. identify the factors that moderate the way they self-manage their chronic pain;
3. develop a substantive theory that explains the experience of self-management of chronic pain for elderly Thai people; and
4. evaluate the developed theory within the context of current literature in the area.

1.6 DEFINITION OF TERMS

Operational definitions of terms that are used throughout this thesis are as follows:

- **Self-management** refers to the approaches that elderly people use to manage their chronic pain (Curtin, Mapes, Schatell, & Burrows-Hudson, 2005; Lorig & Holman, 2003).

- **Self-care** refers to the practice of activities that are necessary to sustain life and health, normally initiated and carried out by individuals for themselves (Martin & McFerran, 2008; Oxford Reference Online Premium, 2010).

- **Chronic pain** refers to pain that lasts for at least six months, which can be intermittent or constant (Bonica, 2001; Merskey & Bogduk, 2002).

- **Thai elderly** are individuals aged 60 years or over (Ageing Thai Organization, 2007b).

- **Rural community** refers to villages situated away from large population centres with relatively small numbers and low population density, which share the following characteristics: similar lifestyle, a strong belief in tradition and culture, and where agriculture is the major occupation (Pholsri, 2002; The Royal Thai Institute, 1981; Urban Environment and Area Planning Division, 2004).

- **Western-oriented treatment** refers to treatment based on conventional medicine that is influenced primarily by mainstream science, including the use of medications, operations, and other advanced medical technology such as x-rays, ultrasound, and computerised tomography scans.

- **Traditional treatment** refers to various forms of treatment based on cultural beliefs and practices, including treatment with substances such as herbal medicines, animal parts and/or minerals; and other therapies such as acupuncture, manual therapies and spiritual therapies (WHO, 2002, 2005).

- **Lay-informed treatments/ approaches** refer to treatments elderly people receive mainly from lay people or from their own experience, such as adjusting their position while seated or lying down.

- **Health personnel** refer to health care staff, such as health centre staff, nurses, pharmacists, and doctors, who have completed accredited training courses in their profession and work in public and/or private health care settings, providing health services that are primarily based on Western-oriented treatment.

- **Prescription medicines** refer to medications/drugs that the elderly people obtain with written prescriptions from health personnel.

- **Over-the-counter medicines** refers to medications that the elderly people purchase without a written prescription from health personnel (WHO, 2005). In Thailand, especially in rural areas, a wide range of medication is accessible to the general public without prescription (Bryant & Prohmmo, 2001; Panyawattananukul, 2003; Sringernyuang, 2000).

1.7 STRUCTURE OF THE THESIS

This thesis is presented in twelve chapters. In Chapter Two, a literature review is presented in relation to the elderly population, chronic pain and its management, the Thai health system, and socio-economic status in Thailand. In Chapter Three, the methodological framework of the study is provided. Symbolic interactionism as a framework for grounded theory, a critique of grounded theory, and the justification for using Strauss and Corbin’s approach (Corbin & Strauss, 2008; Strauss & Corbin, 1990, 1998) to grounded theory, are discussed. In Chapter Four, the data collection methods used in the study are outlined and elaborated. In Chapter Five, an overview of the findings of the study is given, including the basic social psychological problem, core category, contextual determinants, and categories. In Chapter Six, the basic social psychological problem, *uncertainty about pain self-management,* is discussed. In Chapter Seven, the contextual determinants that influence the way the elderly people self-manage their chronic pain are discussed. In chapters Eight to Ten, each category is presented along with its contextual influences, and strategies. In Chapter Eight, the first category, *making sense of pain,* is examined. In Chapter Nine, the second category, *seeking the most suitable treatment*, is elaborated. In Chapter Ten, the third category, *integrating treatment into everyday life*, is outlined. In Chapter Eleven, the core category *striving to maintain well-being: adapting to chronic pain*, is outlined and discussed. In Chapter Twelve, the study findings are examined and discussed, followed by consideration of the limitations of the study as well as implications for clinical practice, nursing education, and further research in nursing, health care, and other related disciplines.

CHAPTER TWO

LITERATURE REVIEW

2.1 INTRODUCTION

In this chapter, information about the population, socioeconomic status, and health care system of Thailand is provided, together with a discussion of health and welfare services for Thai elderly people. Literature on pain and chronic pain is then presented, commencing with their common definitions, followed by a review of chronic pain epidemiology, related influences, effects, and management. Self-management definitions, self-management of chronic illness and of chronic pain in general, and in the elderly in particular, are examined in the subsequent section. Finally, self-management of chronic illness and chronic pain in Thai elderly is highlighted.

2.2 THAILAND AND THAI ELDERLY

2.2.1 Distribution of Thai and Thai elderly population

Thailand is situated in South-East Asia, covering an area of 514,000 square kilometres (United Nations Thailand, 2009), with a population of 63.5 million in 2009 (Ministry of Social Development and Human Security Thailand, 2010). There are four regions in the country: central, northern, southern and north-east. The north-east region, comprising 20 provinces, is the largest region in terms of population and area, accounting for approximately one-third of the total population of the country (Alpha Research Company, 2005). Bangkok, the capital city of Thailand, is located in the central region and has a considerable population in comparison to other provinces. Most reports about population and infrastructure present statistics for Bangkok that are separate from the whole central region. Table 2.1 displays population and other related information for the country overall; for the northern, southern, north-east, and central region (excluding Bangkok); and for Bangkok itself.

2.2.2 Socioeconomic background

Successive *National Economic and Social Development Plans* have been developed in Thailand, from the first plan of 1961–1966 to the current (tenth) plan of 2007–2011. The country’s economic growth has turned Thailand into a lower middle-income country (Ministry of Public Health Thailand, 2007a; World Bank, 2010). The proportion of poor[3] compared to the population of the entire country decreased progressively from 1962 to 1996 (Khang & Lynch, 2010; Sinthuvanich & Chuenyong, 1997). However after an economic recession in the late 1990s (Khang & Lynch, 2010) this proportion increased from 11.4% in 1996 to 15.9% in 1999 (Table 2.2) (Thailand Development Research Institute, 2001; The Education for Development Foundation, 2001). The proportion then decreased progressively to 9.6% in 2006 (Central Intelligence Agency, 2008). Nevertheless, poverty remains a major concern even though the gap between the rich and the poor continues to decrease (Asian Development Bank, 2010; Jitsuchon, 2001).

Table 2.1 Population and other related information in Thailand, Bangkok, and each region in 2009.

Figures	**Region/Part**					
	Thailand	**Bangkok**	**Southern**	**Northern**	**Central (excluding Bangkok)**	**North-east**
Population	63,457,439	5,706,739	8,777,720	11,824,449	15,679,262	21,469,269
Population density (people per square kilometre)	123.5	1,209.8	124.1	69.7	166.0	127.2
Area (square kilometres)	514,000	4,717	70,715	169,664	94,466	168,854
Numbers of older people	7,166,630	657,674	945,052	1,474,757	1,810,557	2,278,590
Distribution of older people	100	9.18	13.19	20.58	25.26	31.79
Proportion of older people (%)	11.29	11.52	10.77	12.47	11.55	10.61

Sources: Data on the population and numbers of older people are derived from the Ministry of Social Development and Human Security Thailand (2010). The distribution and proportion of older people are calculated from these data. Data about the area of each part are obtained from Royal Forest Department of Thailand (2009) and population density is calculated by size of population divided by area.

The Thailand Development Research Institute (2001) reported that in 2001, the proportion of poor to the total population in the whole country was 13%, accounting for 8.2 million people, and 80% of poor people resided in rural areas. There was a considerable difference in the rates of poverty in the Bangkok metropolis in comparison with other parts of the country (Table 2.2) (Thailand Development Research Institute, 2001; The Education for Development Foundation, 2001). This was also confirmed in a recent report from the National Statistical Office (Table 2.3)

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[3] Poverty is measured using the Poverty Line, where people who receive income below the cut-off level are classified as poor. For instance, the Poverty Line in 2001 was 916 baht per month (Thailand Development Research Institute, 2001), where approximately 33 baht was equal to one Australian Dollar on 30 June 2011(Bank of Thailand, 2011).

(Laovakul, 2009). A commonly used explanation for the differences is that the government has, historically, focused on development in the capital city (Jongudomkarn & Camfield, 2006).

Table 2.2 Number and percentage of poor in Thailand and within each region

Year	Poverty line (baht/month)	Number of poor (million)	Percentage of poor in the country	Percentage of poor in each region				
				Central	North	North-east	South	Bangkok
1988	473	17.9	32.6	26.6	32.0	48.4	32.5	6.1
1992	600	13.5	23.2	13.3	22.6	39.9	19.7	3.5
1996	737	6.8	11.4	6.3	11.2	19.4	11.5	0.6
1999	886	9.9	15.9	6.8	10.6	30.8	15.7	0.2
2001	916	8.2	13.0	4.6	10.6	24.5	13.5	0.8

Source: Thailand Development Research Institute (2001)

Table 2.3 Number and proportion of poor (calculated based on income) in the capital city, each region, and Thailand

Region	1988	1992	1996	2000	2004	2007
Bangkok	15.05	6.00	1.58	1.62	1.64	1.47
Central	39.16	21.20	11.19	10.49	5.09	3.66
North	48.04	35.56	16.80	23.45	16.24	12.78
North-east	55.94	47.35	25.65	35.03	17.16	18.05
South	44.94	29.37	17.20	17.06	7.82	7.40
Thailand	44.91	32.50	17.03	21.32	11.25	10.54

Source: Socio-economic Survey, National Statistical Office (NSO, data processed by the Community Economics Development and Income Distribution Office, National Economic and Social Development Board (NESDB) cited in Laovakul (2009).

Approximately two thirds (63.4%) of Thais, who were classified as poor in 2001, lived in the north-east. This region had the highest proportion of poor compared to the other three regions of the country (Table 2.3). Several factors may contribute to the poverty in this region. There is, for example, regional disparity in terms of infrastructure, public services, and budget allocation, where the north-east receives the least support compared with other regions. People living in the region have the least access to education and health care services (such as health personnel, health centres, hospital beds) (Laovakul, 2009; Ministry of Public Health Thailand, 2007a). This results in a continuous cycle of lack of education, poverty and poor health (Bird, Hulme, Moore, & Shepherd, 2002). The main occupation in the region is agriculture, and diverse problems (such as drought and floods) occur frequently, contributing to north-east Thais' financial difficulties. Existing financial problems are exacerbated when family members who have no health insurance[4] suffer health problems, requiring considerable health expenditure (Tongruksawattana, Schmidt, & Waibel, 2008). Similarly, the Thailand Development Research Institute (2001) has highlighted several intrinsic and extrinsic factors that contribute to poverty in the north-east region. The intrinsic influence includes low levels of knowledge and skills, limited information, health problems, financial burdens from having large families, and inadequate property and land to cultivate. The extrinsic factor is the fact that Thai government policy favours city over rural development.

The three provinces in the present study (Khon Kaen, Roi-Et, and Maha Sarakham) are located in the north-east region, and the proportion of poor to total population in these provinces (17.2%, 22.2%, and 25.5% respectively) was less than that of the whole region (28.1%) in 2001 (Thailand Development Research Institute, 2001). This proportion was considerably less than that reported in a survey of 208 households in rural communities in Roi-Et in 2001, which found a higher proportion of poverty: 85% (ratios of very poor, to poor, to middle income were 32: 53: 14) (Thailand Development Research Institute, 2001).

2.2.3 Thai health care system

The development of the Thai health system can be divided into four phases (Wibulpolprasert & Thaiprayoon, 2008): (1) modernisation (1888–1950), (2) rapid expansion of provincial hospitals (1950–1976), (3) primary health care and health for all (1977–2001), and (4) health care finance reform and universal health insurance coverage (2000–present).

In the modernisation phase, medical schools, drug stores, health centres, and provincial hospitals began to be constructed and the Ministry of Public Health was established. In the rapid expansion of provincial hospital phase, the health infrastructure grew rapidly, modern provincial hospitals were constructed in all provinces, and coverage of health centres was expanded in rural areas. In the primary health care and health for all phase, there was a rapid expansion of rural district hospitals and health centres, alongside a

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[4] The Universal Health Coverage Scheme was not implemented until 2001. See Section 2.2.3 ‘Thai health care system,’ for more information.

project to train ‘village health volunteers’ and ‘village health communicators’ to assist health personnel in primary health care services. The Medical Welfare Scheme was established, initially to offer free medical services to poor people and was then expanded to cover elderly people, children, veterans, disabled people, monks, and priests. A Health Card Scheme was established to cover ‘near-poor’ people and a Social Security Scheme was developed to cover all private employees. The Civil Servant Medical Benefit Scheme covered civil servants, public employees, and their parents and/or children. Until 2000, these four public health insurance and private health insurance schemes covered approximately 75% of the population (Wibulpolprasert & Thaiprayoon, 2008). In the health care finance reform and universal health insurance coverage phase, health insurance began to be provided to all Thais. People who previously had no other health insurance programmes were included in the newly established Universal Coverage Health Scheme. This involved a co-payment of 30 baht (approximately one Australian dollar) per visit in 2001 and the requirement of co-payment was removed in 2006 (Wibulpolprasert & Thaiprayoon, 2008).

Health care services in Thailand are provided mainly by the Ministry of Public Health, which comprises: the central health offices, such as the Department of Medical Services, the Department of Thai Traditional and Alternative Medicine, and the Food and Drug Administration Office; and regional offices that have Provincial Public Health Offices in every province. Each Provincial Public Health Office is directed by a provincial chief medical officer and oversees one or two regional/general hospitals that are located in provincial capitals, community hospitals that are situated in the district capitals, and health centres that provide health services to a population of 1,000–5,000 in designated sub-districts. The health centres are staffed by ‘health centre staff,’[5] with nurses in some centres. For example, of 247 health centres in Khon Kaen Province in 2000, 18 had nurses as members of staff (Pagaiya & Garner, 2005). In 2006, there

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[5] ‘Health centre staff,’ also known as rural health workers or health workers at sub-district health centres, complete two year training in the government basic medical care course for providing basic medical and primary health care at sub-district health centres (Ministry of Public Health Thailand, 2007a; Sirindhorn College of Public Health Khonkaen, 2010; Wibulpolprasert & Thaiprayoon, 2008). There are continuing educational programmes for these personnel and the heads of health centres are now required to attend a training course or complete a Bachelor’s Degree in public health (Health Centre Staff, 2010).

were 9,762 health centres and 30,441 health centre staff in the whole country (Ministry of Public Health Thailand, 2007a). In 2009, the number of health centres in Roi-Et, Maha Sarakham, and Khon Kaen was 230, 175, and 248 respectively (Department of Health Service Support, 2009a, 2009b, 2009c). Other organisations that provide health services, apart from those provided by the Ministry of Public Health, include the Ministry of Education (medical schools and university hospitals), the Ministry of Defence, the Ministry of Interior, state enterprise, and private sectors (Ministry of Public Health Thailand, 2007a).

2.2.4 Health care and welfare services for Thai elderly

Elderly care in Thailand is the responsibility primarily of immediate family members. Health and social services for this group are provided initially to support needy people. In 1982, the United Nations World Conference of Aged Population encouraged member states to establish and implement plans and practices for elderly people. In the same year, the first Thai elderly care policy plan was established, followed by the development of other policies and plans such as the Declaration of Thai Senior Citizens and the Thai Elderly Act (Jitapunkul & Wivatvanit, 2009).

The First National Plan for Older Persons (1982–2001) covered all dimensions of their well-being (Jitapunkul & Wivatvanit, 2009). However, since then several studies have indicated that the policies and plans to provide support for Thai elderly have not been implemented fully (Kamnuansitpa et al., 1999; Wechayachai, 2001). One study evaluating social welfare services to improve the quality of life of the elderly in Thailand by Kamhom, Jongsathitman, Watchai, Ayuthaya and Cheuntrakul (1999) reported a lack of government processes (assessment, investigation, monitoring, and evaluation) that made it difficult to achieve the goals of social welfare projects for the elderly.

The Second National Plan for Older Persons (2001–2021) aims to develop integrated community health care, and places priority on promoting the well-being of elderly people. A key aspect of the plan includes the enforcement of the Elderly Act 2003, particularly regarding elderly people’s rights and income as well as tax privileges for children who take care of their elderly parents. Positive attitudes toward ageing and older persons are also aided by an annual fair on the National Day of Older Persons

(13 April), promoting knowledge about elderly people, exhibiting elderly people's local wisdom as well as awarding the Outstanding Older Person of the Year[6] and the Outstanding Families with three generations[7] (Jitapunkul & Wivatvanit, 2009). A variety of initiatives have been used to promote health in elderly people, including health activities (such as exercise), social and recreational activities in the community, elderly people's clubs, provision of free dentures and oral health accessories, and eye examinations and operations for elderly people with cataracts. The latter two initiatives are implemented in association with the annual Thai royal birthday cerebrations. Other support includes health promotion, physical check-ups and screening, medical and rehabilitation care, residential services, social services and income support (Jitapunkul & Wivatvanit, 2009).

Nevertheless, several studies suggest there is still inadequate support for elderly people in Thailand. A study on the system of care for the elderly by Chunharas (2002) indicated limited coverage of care and inadequate provision of residential homes and services in social service centres for the elderly. A recent study of community care models for elderly people by Srithamrongsawat, Bundhamcharoen, Sasat, and Amnatsatsue (2009) also suggested that support for elderly Thais needed to be improved. They indicated that while there were some health and social services for elderly people in communities, coverage and quality of these services varied among different communities and were influenced by context of the community such as culture, social network, community economy, and community capacity, especially with regard to fund raising capacity. Community care for elderly people was facilitated by government financial support and the Universal Coverage Health Scheme. Health care services for elderly people were adequate in terms of coverage, but inadequate in their quality (Srithamrongsawat et al., 2009). Social services for elderly people were developed unsystematically and had limitations in terms of their integration and continuity. Furthermore, services that were provided to dependent elderly people required improvement in terms of quality and quantity (Srithamrongsawat et al., 2009).

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[6] For example, Phra Phrohm Mangkalacharn (Panyananda Bhikkhu) was awarded the Older Person of the Year 2007 for being a good model and making a considerable contribution to Thai society (Chunharas, 2009).

[7] This is awarded to the outstanding family whose members comprise elderly people living with two younger generations (children and grandchildren) (Chunharas, 2009).

2.3 CHRONIC PAIN

2.3.1 Definition

Definitions of pain suggested by several authors are consistent in that it is a subjective, uncomfortable feeling related to tissue injury. The *Medical Dictionary for the Health Professions and Nursing* refers to pain as “an unpleasant sensation associated with actual or potential tissue damage, and mediated by specific nerve fibres to the brain, where its conscious appreciation may be modified by various factors” (Stedman, 2005, p. 1069). This definition is similar to that given by the International Association for the Study of Pain (IASP) (2007). Pain is subjective, according to McCaffery (1979): “Pain is whatever the experiencing person says it is, and exists whenever he [sic] says it does” **(**p. 11). It may occur for psychological reasons and be indistinguishable from that caused by tissue damage. When individuals report their experience in the same way as tissue damage related pain, it should be regarded as pain (IASP, 2007).

Pain can be categorised as acute or chronic. Acute pain occurs within the healing period of tissue damage, and is often related to physical injury, surgery or trauma. It can exist for several months but is resolved during the healing process. The length of time required to achieve normal healing of various tissues differs, depending on the amount of blood flow to them: for example, three to seven days for skin, six weeks for bones, and three months for tendons and ligaments (Marcus, 2009). Chronic pain lasts beyond this healing period (IASP, 2002; NSW Department of Health, 2008) and IASP defines chronic pain as continuous or recurrent pain that persists for longer than the normal healing time, generally about three months (Merskey & Bogduk, 2002). However, Francis Tat-yan (2001) reported that the duration after which pain was considered to be chronic was usually three to six months. Several researchers defined chronic pain as pain that lasted for at least three months; for instance, Blyth et al. (2001), Ersek, Turner, Cain, and Kemp (2004) and Thai Association for the Study of Pain (2009). Others referred to it as pain that lasted for at least six months; for example, Breivik, Collett, Ventafridda, Cohen, and Gallacher (2006), Neville, Peleg, Singer, Sherf and Shvartzman (2008), Frießem, Willweber-Strumpf and Zenz (2009), and Johannes, Le, Zhou, Johnston and Dworkin (2010).

Chronic pain is classified as malignant or non-malignant pain. Chronic malignant pain is associated with advanced and progressive disease that often threatens life, in particular cancer, and is caused by several mechanisms such as "tissue damage and inflammation, nerve compression and infiltration, increased intracranial pressure, obstruction of hollow organs and distension of capsules surrounding internal organs" (Stannard, Kalso, & Ballantyne, 2010, p. 312). Pain caused by tissue damage is the most common, whereas pure neuropathic pain − where there is no tissue damage − is less common and occurs in approximately one-third of patients with cancer (Stannard et al., 2010). Covington and Mathews (2009) define chronic non-malignant pain as pain that lasts at least three months or persists beyond the period for healing. It can begin with trauma, disease or other causes such as fibromyalgia and daily migraine.

In the present study, chronic pain refers to pain that lasts at least six months, because this longer period provides greater opportunity for elderly participants to recognise their pain as a chronic problem than a shorter time frame (three months).

2.3.2 Prevalence of chronic pain

Chronic pain is very prevalent throughout the world. A World Health Organisation (WHO) survey reported that its average prevalence in primary care patients across 15 centres in Asia, Africa, Europe, and the Americas was 22%, ranging from 5.5–33% (Gureje, Korff, Simon, & Gater, 1998). More recently, the *Pain in Europe* survey of 46,000 people reported that the average prevalence of pain across European countries was 19%, ranging from 11% to 30 % (NFO WorldGroup, 2003). Several studies have indicated a high prevalence rate for chronic pain in many countries; for example, United Kingdom (41-48%) (Parsons et al., 2007; Smith, Torrance, Bennett, & Lee, 2007); Australia (17-20%) (Blyth et al., 2001; Currow, Agar, Plummer, Blyth, & Abernethy, 2010); and Asian countries, such as Nepal (47%) (Bhattarai et al., 2007), and Hong Kong (40%) (Chung & Wong, 2007).

2.3.3 Prevalence of chronic pain in elderly people

Chronic pain is common in elderly people (American Geriatric Society Panel on Chronic Pain in Older Persons, 1998; IASP, 2006). Several studies have reported that the prevalence increases with age (Currow et al., 2010; Eriksen, Jensen, Sjøgren, Ekholm, & Rasmussen, 2003; Gerdle, Bjork, Henriksson, & Bengtsson, 2004; Rustoen et al., 2004). For instance, a study in Finland reported a prevalence of 24–29% for the whole population and 31–36% for the elderly population (Saastamoinena, Leino-Arjasb, Laaksonena, & Lahelma, 2005). A study in Australia also reported an increase in prevalence rates from 17.9% in all age groups to 25.2% in those aged 65 years and over (Currow et al., 2010).

In Thailand, several studies reported a high prevalence of specific types of chronic pain in the elderly (Ageing Thai Organization, 2004, 2006). For example, a nationwide survey of Thai elderly in 2002 reported that the prevalence of body and back pain in elderly people aged 60 years or over was 75.1% and the prevalence of joint pain was 47.5% (Ageing Thai Organization, 2004).

Studies in Thailand have also found that the prevalence of chronic pain increases as people age (Ageing Thai Organization, 2006; Fusakul, 2009; Tangtrakulwanich, Chongsuvivatwong, & Geater, 2006a). For example, a community survey of people living in five villages in three provinces in north-east Thailand indicated that the prevalence of musculoskeletal pain increased from 12.9% for people 46–65 years of age to 40.9% for elderly people aged 65 years or over (Nakorn et al., 1993 cited in Chadbunchachai, Prasomsuk, & Richard, 2002). Another study by the Ageing Thai Organization (2006) supported these findings, reporting that the prevalence of joint pain increased from 68.5% in the 60–64 year group to 76.9% in the 75 years and over group in 1992, and from 42.8 % in the 60–64 year group to 54.9 % in the 75 years and over group in 2002.

Overall, the prevalence of chronic pain increases with age and its high prevalence in elderly people has been reported extensively, suggesting that older age is a contributing factor to chronic pain.

2.3.4 Factors contributing to chronic pain

Influences that contribute to chronic pain include demographic, genetic, social and lifestyle, and psychological and co-morbid factors. Demographic risk factors include old age and being female. The association between old age and chronic pain has been reported in numerous studies (Harkins, 2001; Miller & Cano, 2009; Ng, Tsui, & Chan, 2002; Vrezas, Elsner, Bolm-Audorff, Abolmaali, & Seidler, 2010).

Gender imbalance associated with chronic pain appears commonly in the literature. A greater presence of chronic pain in female than male elderly people is reported in numerous studies; for example, Donald and Foy (2004), Reyes-Gibby et al. (2007), McCarthy, Bigal, Katz, Derby and Lipton (2009), Blagojevic, Jinks, Jeffery and Jordan (2010), and Johannes, Le, Zhou, Johnston and Dworkin (2010). Fillingim (2009) suggests that gender difference in pain prevalence is determined by multiple biopsychosocial influences, such as gender roles, hormone, and neurobiological mechanisms related to pain. Greater longevity in females than males (Austad, 2006; Aviv, Shay, Christensen, & Wright, 2005; Newman & Brach, 2001) may contribute, in part, to gender difference in prevalence of chronic pain. However, greater longevity is not the only cause as numerous studies in younger groups have suggested that there is a higher pain and chronic pain prevalence in girls than boys (Jones & Macfarlane, 2005; Konijnenberg et al., 2005; Petersen, Hägglöf, & Bergström, 2009; Watson et al., 2002).

Genetic variation is also reported to be associated with chronic pain (Costigan et al., 2010; Dimitrakov & Guthrie, 2009; Edwards, 2005; Hocking et al., 2010; Manek & MacGregor, 2005). For example, Tassanauuipas (2009) suggests that genetics is the greatest factor associated with degenerative disc disease, which is a cause of low back pain. Hocking et al. (2010) report that chronic widespread body pain is associated with the beta 2-adrenergic receptor, and Costigan et al. (2010) indicate that chronic neuropathic pain is associated with amino acid changes in a gene related to the potassium channel.

Social and lifestyle factors linked to chronic pain include obesity, occupation, type of work and typical daily life practices, low level of education, and smoking. Obesity is reported to be a factor contributing to chronic pain (McCarthy et al., 2009; Tangtrakulwanich, Geater, & Chongsuvivatwong, 2006b; Vrezas et al., 2010). McCarthy et al. (2009) conducted a study on chronic pain and obesity in 840 elderly people aged 70 years and older living in New York and reported that obesity (BMI 30–34.9) doubles the chance (Odds Ratio (OR)[8] = 2.1), and severe obesity (BMI >35) leads to more than four times the chance (OR = 4.5) of having chronic pain compared to normal weight (BMI 18.5–24.9) for elderly people.

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[8] The Odds Ratio is used commonly to compare the probability of a certain event in two groups. An Odds Ratio of one implies equal probability, greater than one indicates greater probability in the first group, less than one represents a lesser chance in the first group (Children's Mercy Hospitals and Clinics, 2010).

Occupational influence is another factor reported widely as a contributing factor for chronic pain. O'Reilly, Muir and Doherty's (2000) postal survey of 4057 men and women aged 40–80 years living in the community in the United Kingdom revealed a higher prevalence of chronic knee pain in carpenters (OR = 4.6), construction workers (OR = 2.4) and miners (OR = 1.9). Agricultural work is also claimed to be a risk factor for chronic pain (Kirkhorn, Earle-Richardson, & Banks, 2010). Barrero, Hsu, Terwedow, Perry, Dennerlein, and Brain's (2006) survey of 13,965 men and women aged 25–64 years in rural China found that being a farmer was associated with chronic low back pain. Dahaghin, Tehrani-Banihashemi, Faezi, Jamshid, and Davatchi's (2009) community based study in Iran indicated that housewives were at greater risk for experiencing chronic pain from knee osteoarthritis (OR = 1.68) than women whose main occupation was outside the home. A study in rural north-east Thailand, by Chadbunchachai, Prasomsuk, and Richard (2002), indicated that chronic pain was associated strongly with agricultural work and manual labour.

Level of education and smoking are also regarded as social and lifestyle risk factors for chronic pain. Several international studies have found that chronic pain is associated with having a low level of education; for example, in Australia (2010), Taiwan (2006), Israel (Neville et al., 2008), and the United States (2007). This may be because individuals with low education levels have less access to pain-related information and pain treatment resources (Reyes-Gibby et al., 2007; Yu et al., 2006). The association of chronic pain and cigarette smoking remains unclear. However, a number of researchers have claimed that smoking is a risk factor for chronic pain (Sá, Baptista, Matos, & Lessa, 2009; Tangtrakulwanich et al., 2006b; Tassanauuipas, 2009; Zvolensky, McMillan, Gonzalez, & Asmundson, 2010), and a review by Shi, Weingarten, Mantilla, Hooten, and Warner (2010) suggested that many, but not all studies, reported smoking as a risk factor for various types of chronic pain. Nevertheless, still others report that smoking decreases the risk for chronic pain (Blagojevic et al., 2010), or as having no association with chronic pain (Altinel et al., 2008; Ghaffari, Alipour, Jensen, Farshad, & Vingard, 2006).

Chronic pain is reported to be associated with several psychological factors. Menzel (2007) suggested that factors such as depression and maladaptive pain responses were linked to the development of chronic pain from acute pain. Bruckenthal (2008) also indicated that psychological distress and dissatisfaction with work were risk factors for chronic low back pain. Hinrichs-Rocker, Schulz, Järvinen, Lefering, Simanski, and Neugebauer's (2009) study of psychosocial predictors and correlates for chronic pain also claimed that depression, psychological vulnerability, and stress were correlated with chronic post-surgical pain.

Co-morbidity impacts on chronic pain (Reyes-Gibby et al., 2007) and Koenig (2003) suggested the four most common problems that led to chronic non-malignant pain were arthritis, fibromyalgia, headache, and low back pain. Arthritis included non-inflammatory arthritis, primarily osteoarthritis; and inflammatory arthritis, in particular rheumatoid arthritis and that related to lupus erythematosis. Fibromyalgia (myofascial pain syndrome (MPS) or fibromyositis) referred to chronic widespread pain in muscles, tendons, and ligaments that surround joints or bone (Koenig, 2003). Buse, Manack, Serrano, Turkel, and Lipton's study on sociodemographic and co-morbidity profiles of chronic migraine and episodic migraine sufferers (2010) revealed that individuals with chronic migraine were twice as likely to suffer chronic pain. The Thai Association for the Study of Pain (2009) regarded MPS, tension headache, low back pain, and osteoarthritis as common causes of chronic pain among Thais, and Prateepavanich (2009) claimed that MPS was the most common chronic pain in clinical practice.

2.3.5 Effects of chronic pain on well-being

Chronic pain has a considerable impact on physical, psychological, social, and economic well-being. Physical effects include impairment in functional ability (Blyth, March, & Cousins, 2003; Gauntlett-Gilbert & Eccleston, 2007), interference with daily living activities (Currow et al., 2010; Smith et al., 2001), fatigue (Gold et al., 2009; Power, Badley, French, Wall, & Hawker, 2008), and sleep disturbance (Cornally & McCarthy, 2011; Cunha-Miranda, Costa, & Ribeiro, 2010). The psychological consequences of chronic pain include anxiety (Shuchang et al., 2011; Wong et al., 2011), depression (Goral, Lipsitz, & Gross, 2010; McCracken & Gutiérrez-Martínez, 2011; Ohayon & Schatzberg, 2010), and suicidal thoughts (Braden & Sullivan, 2008; Ilgen, Zivin, McCammon, & Valenstein, 2008).

In relation to the social effects of chronic pain, a study on coping with chronic pain by Dysvik, Natvig, Eikeland, and Lindstrøm (2005) reported that the main adverse effects of chronic pain were on family life and social activities. A study by Moulin, Clark, Speechley, and Morley-Forster (2002) on prevalence, impact, treatment and the role of opioid analgesia in Canadian people with chronic pain found that almost half the participants were unable to attend social and family activities, resulting in decreased social interactions. Regarding the economic impact of chronic pain, there was an inverse relationship with working ability (Breivik et al., 2006), employment (Blyth et al., 2001; Breivik et al., 2006), income (Breivik et al., 2006), and work effectiveness (van Leeuwen, Blyth, March, Nicholas, & Cousins, 2006). Pain has also been seen to contribute to the high cost of treatment (Kemler & Furnée, 2002; Phillips, 2006; Sleed, Eccleston, Beecham, Knapp, & Jordan, 2005).

Chronic pain has similar effects on elderly people as on other age groups. It contributes to poor health in general and impairs the quality of life (IASP, 2006). Physical effects include sleep disruption (Francis Tat-yan, 2001), appetite disturbance (Francis Tat-yan, 2001), weight loss (IASP, 2006), cognitive impairment (IASP, 2006), decreased ability to perform daily activities (IASP, 2006), impaired mobility and ambulation (Yonan & Wegener, 2003; Yu et al., 2006), activity limitation, (Reyes-Gibby et al., 2007), and interference with normal functioning (Sofaer et al., 2005).

Numerous studies have highlighted the psychological effects of chronic pain in elderly people, including negative emotions and decreased life satisfaction (Closs, 2007). Chronic pain also contributes to loneliness (Yonan & Wegener, 2003), depression (López-López, Montorio, Izal, & Velasco, 2008; McCarthy et al., 2009), anxiety (IASP, 2006; McCarthy et al., 2009), anger (Francis Tat-yan, 2001), hopelessness (Turk, Swanson, & Tunks, 2008), despair (Francis Tat-yan, 2001), and dependency (Turk et al., 2008). In addition, chronic pain also has a social effect on the elderly. It has been reported to be a barrier to social engagement (Lansbury, 2000), and leads to social isolation (Sofaer et al., 2005), because of decreased involvement in activities in the immediate family and the wider community (Sofaer et al., 2005). Other effects in elderly people include increased healthcare utilisation and costs (IASP, 2006; Yonan & Wegener, 2003).

In Thailand, several studies have reported that chronic pain has a moderate-to-high effect on general health (Promsuwan, Sirichantra, & Phongbout, 2010; Suwannarat, 2001). A national health survey, for example, indicated that joint pain was a key factor determining poor quality of life in the elderly (Assantachai & Maranetra, 2003), and chronic pain could restrict activities of daily living (Jansoontraporn, 2005; Taneerat, Petpichetchian, & Soaree, 2008). A study of patients in all age groups with chronic non-cancer pain from musculoskeletal disorders in southern Thailand reported that the participants claimed that it had a moderate adverse effect on their physical and emotional well-being, and a minimal effect on their sociocultural and cognitive well-being (Taneerat et al., 2008). Other effects of chronic pain include increased disability, suffering, low self esteem, and social isolation (Jansoontraporn, 2005; Pinnoi, 2003).

In addition, a study by Chadbunchachai, Atsawapark, Eungphinitphong, Prakirakae, and Siriwichai (2001), of musculoskeletal pain behaviours in adults living in two villages in the north-east region, reported that pain decreased work efficacy, produced stress, had a negative effect on emotions, increased usage of improper treatments, and caused adverse effects from inappropriate treatment. These effects were more pronounced in people living in rural communities than those in urban settings (Auabandit, Unkaew, Kam-au, Thayida, & Oadthon, 2001). Likewise, a study in twelve rural villages in one district in Khon Kaen Province reported that pain affected adversely their activities of daily living, independence, sleep, and ability to work (Auabandit et al., 2001).

2.3.6 Management of chronic pain

Management of chronic pain aims to reduce pain symptoms, eliminate its underlying cause, and minimise its negative effects on well-being (Francis Tat-yan, 2001). Management is categorised in several ways. While some pain literature classifies it as involving pharmacological, psychological, and physical therapeutic modalities (Bonica, 2001), the most common classification is pharmacological and non-pharmacological strategies (IASP, 2006; Kazanowski & Laccetti, 2002; Kengen, Rutledge, Mouttapa, Weiss, & Aquino, 2012; Tsai, Liu, & Chung, 2010). IASP (2006) has suggested that pharmacological treatment of chronic pain achieved its greatest effect when combined with non-pharmacological approaches.

Pharmacological approaches

Medications used for chronic pain management are: (a) simple non-opioid analgesics, in particular paracetamol and non-steroidal anti-inflammatory drugs; (b) opioid analgesics, particularly morphine, codeine, methadone, and tramadol; and (c) adjuvant analgesics, such as anti-depressants, neuro-stabilising anti-epileptics, anti-spasmodics, alpha-2 agonists, and topical agents, including lidocaine[9] and capsaicin (Marcus, 2009). The most common groups used for individuals with moderate or severe chronic pain are non-steroidal anti-inflammatory drugs, weak opioids, and paracetamol (Breivik et al., 2006). Special attention is required for pharmacological management in the elderly (Barber & Gibson, 2009; Barkin et al., 2010) because they have a higher risk of developing side effects and greater problems with complex drug interactions compared with younger individuals (Barber & Gibson, 2009; Gloth, 2000).

Non-pharmacological approaches

The American Geriatrics Society Panel on Persistent Pain in Older Persons (2002) recommended that non-pharmacological approaches should be integrated into chronic pain management. Management was more effective when combined with non-pharmacological approaches, which included physical therapy, psychological methods, educational programmes, social interventions, and complementary therapies (IASP, 2006).

Physical therapy modulates pain through peripheral and central mechanisms by changing physical energy in individuals. This change of energy leads to effects on various body system levels (such as cell and tissue), which alter metabolic activity, membrane permeability, tissue extensibility, circulation, and activity within the peripheral and central nervous systems (Rakel & Barr, 2003). Physical therapy includes exercise, transcutaneous electrical nerve stimulation (TENS),[10] thermal

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[9] Lidocaine is categorised within the local anaesthetics group, and applied to relieve symptoms such as pain, itching, oral irritation, and sore throat (Skidmore-Roth, 2010).

[10] TENS is based on the gate control theory of Melzack and Wall (Ballantyne, 2006). They claim that various neurotransmitters in the dorsal horns of the spinal cord operate the transmission of the pain message to the brain. Prevention of transmission to the brain prevents the pain sensation (Bonica & Loeser, 2001; Cervero, 2009; Laccetti & Kazanowski, 2009). In TENS it is believed that high-frequency stimulation stimulates Alpha-Beta fibres to ‘close the gate,’ and low-frequency stimulation activates the pain-inhibiting descending pathways (Ballantyne, 2006). It is a passive, non-invasive, non-addictive

modalities (for example, ice packs, heating pads, warm whirlpool, ultrasound or short wave diathermy), assistive devices (for example, cane or walker), or orthotics (in particular splints or braces) (IASP, 2006; Rakel & Barr, 2003). Exercise provides benefits for chronic pain in the short- and long-term (Jones & Hoffman, 2006; Marcus, 2009). High and low frequency TENS is an effective treatment for chronic low back pain, migraine, and tension-type headaches (Ballantyne, 2006). It also helps to relieve stiffness, improve mobility, and relieve pain (Warfield & Fausett, 2002). There is limited but positive evidence of the effectiveness of thermal modalities in managing chronic pain (Rakel & Barr, 2003). Assistive and orthotic devices help reduce pain at the site of pathology. For example, well-fitted shoes decrease chronic heel and foot pain, and wrist splints help minimise the chronic wrist pain associated with rheumatoid arthritis (Rakel & Barr, 2003).

Regarding psychological approaches, Turk, Swanson, and Tunks (2008) indicated that these methods of pain management were significant because dealing with chronic pain consequences has relied predominantly on individual approaches. People with chronic pain sought treatment for approximately seven years. However, they still have to manage other effects on their own after receiving appropriate treatment, due to the incurable nature of the pain (Turk et al., 2008). Cognitive behavioural therapy is used commonly to help individuals to change their thoughts (perceptions, attitudes, and beliefs) about their pain, pain control, and behaviours in relation to this symptom (Dalton & Coyne, 2003; Turner & Romano, 2001). A Cochrane systematic review of three main types of cognitive behavioural techniques for people with chronic low back pain by Henschke, Ostelo, van Tulder, Vlaeyen, Morley, and Assendelft (2010) revealed moderate evidence that operant therapy[11] and behavioural treatment were effective in the short-term and that there was little difference between operant,

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modality, which decreases pain perception by sending a painless electrical current to specific nerves through the skin (Warfield & Fausett, 2002).

[11] Operant therapy helps patients to modify pain behaviours and related activities (Fordyce, 2001b), based on the belief that a response occurs because of what follows or is anticipated to follow the behaviours (Fordyce, 2001a). Therapists influence pain-related behaviours by actively modifying the consequences that follow the patient's behaviours, contributing to the patient's increased activity levels and health behaviours while withholding maladaptive behaviours (Robinson, Leo, Wallach, McGough, & Schatman, 2010).

cognitive[12] or combined cognitive behavioural techniques in the short- or intermediate-term.

Complementary and alternative medicines (CAM)[13] have been used widely by individuals with chronic pain (Bauer, Ang-lee, Bieber, & Yuan, 2006; Snyder & Wieland, 2003). A United States national survey by Wade, Chao, Kronenberg, Cushman, and Kalmuss (2008) reported that more than half (53%) of the participants used CAM for health conditions. Five major domains of CAM classified by the National Centre for Complementary and Alternative Medicine (NCCAM) are alternative medical systems (traditional Chinese medicine), mind–body interventions (imagery, meditation,[14] yoga, music, and prayer), biologically based treatments (herbs, essential oils, nutritional and food supplements), manipulative and body-based methods (chiropractic medicine, massage, hydrotherapy), and energy therapies (therapeutic touch, magnets).

Many researchers report benefits from the use of herbs on various chronic pain conditions. For example, Gagnier, Tulder, Berman, and Bombardier (2010) reviewed ten randomised control trials and found that Devil's Claw,[15] White Willow bark,[16] and topical Capsicum Frutescens[17] provided pain relief for individuals with low back pain. Bergstrom and Bauer (2006) suggested that avocado and beta-carotene were listed as

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[12] Deals with one or a combination of thoughts, feelings, and beliefs that stimulate the pain (Henschke et al., 2010).

[13] "a broad domain of healing resources that encompasses health systems, modalities, and practices and their accompanying theories and beliefs, other than those intrinsic to the dominant system of a particular society or culture in a given historical period" (Panel on Definition and Description, 1997, p. 51).

[14] Meditation is "a process of healing and restoration of wholeness of mind, body, and spirit" (Pokharna, 2006, p. 281). It has been practised by Hindi and Buddhists to enhance health (Pokharna, 2006).

[15] Devil's claw (*Harpagophytum procumbens*) is a shrub with red flowers and is native to Africa. Its roots and tubers are used to increase appetite, relieve heartburn, and reduce pain. Its beneficial effects in relieving pain and inflammation in degenerative joint diseases (such as arthritis and other painful conditions) have been supported by scientific evidence (University of Maryland Medical Center, 2008b).

[16] The willow family comprises different species of deciduous trees and shrubs native to Europe, Asia, and some parts of North America. Willow bark has been used for the treatment of pain (particularly low back pain and osteoarthritis), headache, and inflammatory conditions such as bursitis and tendinitis. The bark of the white willow contains a substance that is similar to aspirin and this substance was used to develop aspirin. Pain relief effects from white willow are slower than that from aspirin, but may last longer (University of Maryland Medical Center, 2008c).

[17] Capsicum annuum or Frutescens (cayenne or red pepper) has a hot and spicy taste, which is primarily due to a substance with pain-relieving qualities known as capsaicin. It is an important spice used in many countries such as Southeast Asia, China, Southern Italy, and Mexico. It has also been used as a topical remedy for arthritis and muscle pain (University of Maryland Medical Center, 2008a).

‘possibly effective,’ [18] and glucosamine and chondroitin were graded as ‘likely effective,’[19] for osteoarthritis. Other natural products used commonly by individuals with arthritis included ginger and turmeric even though there was insufficient evidence to rate their effectiveness (Jellin, 2007; The Natural Medicines Comprehensive Database, 2010).

Massage therapy is used by over a quarter (27.3%) of primary care patients (Fleming, Rabago, Mundt, & Fleming, 2007). A review by Tsao (2007) revealed that there was strong support for the analgesic effect of massage on low back pain, moderate support for it on shoulder pain and headache, and little support for it on fibromyalgia, mixed chronic pain conditions, neck pain, and carpal tunnel syndrome.

Other CAM used for chronic pain includes meditation and acupuncture. Several studies reported that meditation and acupuncture were effective in chronic pain treatment (Pokharna, 2006). In addition, a Cochrane systematic review on acupuncture for tension-type headache by Linde, Brinkhaus, Manheimer, Vickers, and White (2009) reported that acupuncture provided short-term (up to three months) benefits with respect to pain intensity and the number of headache days. Rubinstein et al.’s (2010) systematic review indicated a similar effect of acupuncture for individuals with chronic non-specific low back pain.

Thai studies also support the effectiveness of various types of CAM. For example, Kuptniratsaikul, Tosayanonda, Nilganuwong, and Thamalikitkul (2002) found that regular exercise provided improvement in walking distance in patients with osteoarthritis. Pinnoi (2003) suggested that physical exercise programmes helped reduce pain in patients with low back pain, while Haera (2003) indicated that reflexology provided relief for joint pain in individuals with knee osteoarthritis.

Overall, chronic pain is a subjective unpleasant symptom that lasts for three to six months or longer. Its prevalence is high in the general population and higher in older individuals. Several factors are reported to be associated with chronic pain, for

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[18] Practical rating on the effectiveness of natural products on specific health conditions by the Natural Medicines Comprehensive Database (2010) ranges from effective to ineffective. ‘Possibly effective’ is indicated for some, but there is limited (by quantity, quality, or contradictory findings) clinical evidence to support the use of the products for a specific indication (Jellin, 2007).

[19] ‘Likely effective’ indicates high levels of reliable clinical evidence to support the use of the products for a specific condition (Jellin, 2007).

example, age, gender, some illnesses, genetic factors, and work. Numerous reports highlight considerable effects of chronic pain, and its management comprises not only treatments to control pain sensations, but also strategies to handle pain-related consequences. Many researchers categorise the management into pharmacological and non-pharmacological approaches.

2.4 SELF-MANAGEMENT

Self-management is an important factor for maintaining well-being in individuals with chronic illness. The term is often used interchangeably with ‘coping’ and ‘self-care’[20] (Curtin & Mapes, 2001; Schilling, Grey, & Knafl, 2002). However, self-management indicates dealing with health problems on a broader level without focusing on any specific aspect and tends to be manageable (Clark et al., 1991; McGowan, 2005), whereas ‘coping’ places more emphasis on enduring, minimising, accepting or refusing uncontrollable aspects (Kralik, Koch, Price, & Howard, 2004; Richardson & Poole, 2001). There are different interpretations of ‘self-care.’ While some investigators refer to self-care as tasks performed by healthy and unhealthy individuals regardless of the involvement of health personnel (Clark et al., 1991; McGowan, 2005), most authors refer to self-care as tasks performed by healthy individuals to prevent illness (Clark et al., 1991). Self-management can have dissimilar meanings for the same people at different points in time or for different groups of people (Corben & Rosen, 2005; McGowan, 2005), such as health personnel and patients (Kralik et al., 2004), and for people of different socio-economic status (Clark et al., 2008).

2.4.1 Definition of self-management

There is no single standard definition of self-management (Barlow, Wright, Sheasby, Turner, & Hainswoth, 2002). The Oxford English Dictionary refers to self-management as “management of or by oneself; the taking of responsibility for one's own behaviour and well-being” (Soanes & Stevenson, 2005). In a review of self-management of chronic disease by elderly people, Clark et al. (1991) suggested a definition of self-management as:

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[20] See Section 1.6 ‘Definition of terms,’ Chapter One ‘Introduction,’ for more information.

> Day-to-day tasks an individual must undertake to control or reduce the impact of disease on physical health status. At home management tasks and strategies are undertaken with the collaboration and guidance of the individual's physician and other health care providers (p. 5).

In contrast to the Clark et al.'s definition that focuses on tasks, Barlow et al. (2002) viewed self-management as "the individual's ability to manage the symptoms, treatment, physical and psychosocial consequences and life style changes inherent in living with a chronic condition" (p.178). In addition to tasks and ability, Corben and Rosen (2005) defined self-management more broadly, covering cognitive and performance tasks. They referred to it as "developing an understanding of how their condition affects their lives and how to cope with their symptoms" (p. vii). While many definitions referred to individual aspect, a concept analysis of self-management in long-term conditions by Embrey (2006) revealed that self-management was regarded as an intervention. From this analysis, they defined self-management as "an intervention in health care which increases a patient's power and responsibility for making decisions, and helps ensure that necessary health-care actions are taken" (p. 507).

In summary, several definitions of self-management have been suggested. Most refer to it as an individual's activities to deal with their condition, while some regard it as a health intervention to improve the individual's health action. In the present study, self-management refers to the approaches that elderly people use to deal with their chronic pain and related consequences in order to maintain what they perceive to be a satisfactory level of general well-being.

2.4.2 Skills necessary for self-management

Several skills have been suggested as necessary for effective self-management. Clark et al. (1991), for example, have indicated that three related competencies were required for successful self-management: adequate knowledge (of the condition and its treatment) to make informed decisions, performance of activities that help control the condition, and application of the necessary skills in maintaining adequate psychosocial functioning. Barlow et al. (2002) placed more emphasis on a process and quality of life. They described self-management skills as including those for monitoring the condition and responding to its cognitive, behavioural and emotional effects in order to maintain an optimal quality of life. They also pointed out that these monitors and responses involved a dynamic and ongoing process of self-regulation.

Lorig and Holman (2003) added an interactive aspect, claiming that self-management encompassed skills in problem solving, decision making, resource utilisation, formation of a patient–provider partnership, and adoption of actions to manage the health condition. In addition, Curtin, Mapes, Schatell, and Burrows-Hudson (2005) divided self-management of chronic illness into two domains: self-management of health care, involving treatment; and self-management of everyday life, referring to achieving or maintaining normality in life. Holman, Lorig, and Laurent (2006) added psychological skill to these two domains. They identified three main skills for good self-management, including those for dealing with the illness, continuing normal life, and coping with emotions. The Western Australian General Practice Network's (2010) suggestion regarding the characteristics required for self managment included not only interaction with health personnel, but also with caregivers. It suggested that individual's self-management entailed active involvement with caregivers and health personnel in order to: know their condition and various treatment options, negotiate treatment plans, participate in health protective and health promotion activities, monitor and manage the condition, manage the impact of the condition (on physical, emotional, and interpersonal relationship consequences), and have confidence in using resources.

2.4.3 Self-management of chronic illness

Corbin and Strauss (1992) used a *chronic illness trajectory framework* to denote a chronic illness course. The authors explained chronic illness as a trajectory that was commonly uncertain, depending upon individuals, their management, and the responses to management. They introduced *trajectory phasing* that represented different phases of chronic illness.

Self-management for chronic illness has been focused on increasingly by health providers and researchers in many countries (Barlow et al., 2002; Shariff et al., 2009). Several researchers have highlighted the vital role of self-management in taking care of health and well-being (Flinders Human Behaviour and Health Research Unit, 2007;

Walker et al., 2003). In a review of self-management approaches for people with chronic illness, Barlow et al. (2002) found that there were growing bodies of evidence indicating that individuals who had been educated in self-management of their chronic illness had better health status than those who had not been educated in self-management. Self-management, along with collaborative care, is the key strategy to minimise the impact of chronic illness (Flinders Human Behaviour and Health Research Unit, 2007). Proper self-management can help reduce the burden and health costs surrounding chronic illness (Gallagher, Donoghue, Chenoweth, & Stein-Parbury, 2008).

2.4.4 Strategies for self-management of chronic symptoms and related factors

Several studies have suggested self-management strategies for chronic illness (Barlow et al., 2002; Clark et al., 1991; Holman et al., 2006). Clark et al. (1991), for example, claimed that self-management strategies used in different chronic illnesses were similar. In their study of self-management strategies used by individuals with chronic illness, they reported many strategies; for example, recognising and responding to symptoms, seeking information and using community services, adapting to work, and managing emotions and psychological responses to illness. The strategies that involved interaction with other people included managing relations with significant others and interacting with health care providers. Overall, the self-management strategies suggested were similar. Most covered six aspects, including monitoring and managing symptoms, treating illness, dealing with psychological effects, adjusting the life of illness sufferers and of caregivers, seeking and allocating (human, financial, and material) resources, and promoting general well-being.

Numerous factors affecting self-management have been suggested by several researchers (Bayliss, Ellis, & Steiner, 2007; Corben & Rosen, 2005; Corbin & Strauss, 1992; Jerant, von Friederichs-Fitzwater, & Moore, 2005). Four common influences on self-management suggested by these authors were personal factors; social and environmental determinants; the nature of the illness; and human, financial, and material resources for self-management.

2.4.5 Self-management of chronic pain

Researchers claim that self-management is one of the key strategies for dealing with chronic pain (Ersek, Turner, Cain, & Kemp, 2008; Smith & Elliott, 2005) and several chronic pain self-management strategies have been reported. Shaul (1997) described the experience of women in managing rheumatoid arthritis in four categories: (a) ‘becoming aware,’ involving acknowledgement of the presence of the disease; (b) ‘getting care,’ referring to seeking care and ‘doctor shopping,’ and ‘trial and error’ exploration; (c) ‘learning to live with it,’ comprising ‘listening to the body’ (self-monitoring), ‘keeping a positive attitude’ (including setting realistic goals, using humour, being with family and friends, doing things they enjoyed, helping others, helping others to understand their conditions, and praying), ‘asking for help,’ and ‘pretending’; and (d) ‘mastery,’ relating to having confidence and ability in taking care of the condition. Women with rheumatoid arthritis developed an expert insight into their illness from knowledge about the illness and its treatment acquired along with the experience of living with it. This helped them be able to incorporate their chronic illness into everyday life.

Likewise, Kralik et al. (2004) categorised self-management in people with arthritis into four themes: (a) recognising and monitoring the boundaries, entailing them accepting the presence of the chronic condition and its impact; (b) mobilising the resources, involving maximising the psychological, physical, and material resources available to them; (c) managing the shift in self-identity, requiring them to deal with changes in themselves as a consequence of chronic illness; as well as (d) balancing, pacing, planning and prioritising, which necessitated them managing well before and during engaging in their activities (Kralik et al., 2004). These four themes were similar to those of Shaul (1997) in that both authors’ first theme represented awareness or acceptance of the presence of illness, while the second theme involved resource management for receiving treatment. The third theme indicated adjustment to effects of the illness, and the fourth theme denoted control over the illness. In a later study, Shariff (2009) reported that techniques used to achieve well-being included accepting new limits and adjusting their interactions with others. These results were similar to the two requirements for self-management of chronic illness introduced by Corbin and Strauss (1992).

Overall, strategies for chronic pain self-management include acknowledging and accepting the condition and its effects, seeking and organising resources to maximise well-being, and adjusting aspects of life to this chronic condition.

2.4.5.1 Self-management of chronic pain in elderly people

There is limited literature on self-management of chronic pain in the elderly people (Dewar, 2006). Most reports on treatment types rather than the processes used by elderly people. A study by Barry et al. (2004) on strategies used to cope with chronic pain in older persons revealed that the most common strategies used were analgesic medications, exercise, cognitive methods, religious activities, and activity restriction, respectively. Other strategies for relieving pain included seeking care of a physician, hot/cold modalities, and complementary medicine. Adaptation in daily life was also used; for example, nutritional management, altered positions, favouring the painful area, and pacing oneself. In terms of dealing with psychological consequences, emotional/ instrumental support has also been reported as a strategy. Each elderly person used approximately three of these strategies for his/her chronic pain in the month prior to the study and the reported effectiveness of these strategies was minimal or moderate (Barry et al., 2004). The combination of pharmacological and non-pharmacological approaches used by participants in their study is consistent with the recommendation that the greatest effect is achieved when these two pain relief approaches are combined.

Tse et al.'s (2005b) study of pain relief strategies used by older people with chronic pain in Hong Kong reported that few participants took prescribed medications to relieve pain, and less than one in twenty (4.5%) combined prescribed medications and non-prescribed approaches. The majority used non-prescribed intervention only, where topical analgesics in combination with massage were applied. More than half (58%) claimed that non-prescribed pain relief was very effective. Nevertheless, Tsai, Chu, Lai and Chen's (2008) study on Chinese elderly people revealed different outcomes, suggesting that pharmacological strategies were used more than non-pharmacological approaches. Differences between the results of these studies may be due to different study settings where the former was undertaken in nursing homes while the latter was carried out in outpatient clinics. Moreover, a study by Konvicka, Meyer, McDavid, and Roberson (2008) revealed that the most common CAM used by elderly people attending a chronic pain clinic was herbal medicine, followed by massage, relaxation techniques, and meditation.

Lansbury (2000) has reported that barriers to chronic pain self-management included the cost of pain medication, transportation, and access to treatment, in particular long waiting times for appointments. Treatment side effects were the primary reasons for discontinuing pain medication. Health problems that restricted their activities, combined with "fear of falling" (Lansbury, 2000, p. 9), prevented them from doing exercises that may otherwise help reduce pain and promote general well-being. Another barrier to chronic pain self-management was the perception that pain was a natural part of ageing, which delayed help seeking, and influenced the utilisation of pain treatment. "Fear of loss of control and independence" (Lansbury, 2000, p. 8) prevented elderly people from informing others about their pain.

Dissatisfaction with health personnel behaviour was also a barrier to chronic pain self-management. This arose from poor communication and a feeling of receiving inadequate empathy and sensitivity from health personnel. Perceived age discrimination by these personnel contributed to dissatisfaction. The perception of not having a sympathetic listener led elderly people to be reluctant to express their feelings to others. Furthermore, their hesitation to consult health personnel, combined with limited consultation time, contributed to them not receiving satisfactory answers to questions about their condition and treatment. These unanswered questions resulted in mismanagement of, and dissatisfaction with, treatment. Conflicting suggestions from health personnel also made it difficult for them to follow instructions (Lansbury, 2000). The perception of treatment as a threat to their independence resulted in elderly people discontinuing consultations with health personnel who made them feel disempowered.

Overall, barriers to chronic pain self-management in elderly people are similar to those to chronic illness management. They can be categorised as: nature of illness, personal factors, social and environmental influences, and management resources.

2.4.5.2 Self-management of chronic illness and chronic pain in Thai elderly people

Self-management is regarded as an important skill in maintaining well-being in Thai elderly. It is one of the nine components of the Thai Healthy Ageing Instrument

(Thiamwong et al., 2008).[21] The beliefs accumulated from modern and traditional knowledge can facilitate or hinder self-management (Naemiratch & Manderson, 2006; Phutthikhamin, 2008; Sowattanangoon, Kochabhakdi, & Petrie, 2008). For example, Sowattanangoon, Kotchabhakdi, and Petrie's (2009) study of the influence of Thai culture on diabetes self-management revealed that participants' self-management was based on their beliefs. Some believed that the illness was caused by biomedical factors (such as genetics) and cultural factors (such as karma) from the current or a previous life. Buddhist beliefs facilitated dietary changes and the culture of having rice as a staple meal moderated dietary control (Sowattanangoon et al., 2009). Sodabunlu (2002) reported that self-management of southern Thai Buddhist elderly placed more emphasis on annual physical check-ups and on the use of local herbal remedies. These findings suggested a vital role for Buddhist beliefs in self-management and in their association with the use of herbal treatments.

Several Thai studies reported self-management strategies in people with chronic conditions. Sritanyarat (1996) suggested that self-management in people with diabetes mellitus comprised four processes: learning about diabetes, trial and error, sacrifice, and getting on with life. A grounded theory study by Duangpaeng, Eusawas, Laungamornlert, Gasemgitvatana, and Sritanyarat (2002) on chronic dyspnoea self-management of adults with chronic obstructive pulmonary disease[22] suggested that the social psychological process 'becoming an expert,' was used, comprising four sequential stages from entering as a novice to becoming an expert. Kirdphon's (2003) grounded theory study on Thais with hypertension indicated that five strategies were used for self-management: getting a diagnosis, getting treatment/follow-up, responding to diagnosis, seeking a cure, and accepting and adjusting to chronicity of hypertension. In the same year, Panpakdee, Hanucharurnkul, Sritanyarat, Kompayak, and Tanomsup (2003) suggested self-management for this disease comprised four stages that represented changes in adherence to treatment from being initially diagnosed to acknowledging the incurable nature of the illness. A more recent study by Arpanantikul (2006) reported that the process of self-management to achieve good

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[21] The other components of the instrument include: being self-sufficient and living simply, managing stress, having social relationships and support, making merit and good deeds, practicing self-care and self-awareness, staying physically active, staying cognitively active, having social participation, and accepting aging (Thiamwong et al., 2008).

[22] Chronic obstructive pulmonary disease is a disease of airflow limitation, which is associated with an abnormal inflammatory response of lung to air particles (Barnes, Drazen, Rennard, & Thomson, 2008).

health among middle-aged women comprised five stages, including the recognition of one's own health as well as the acknowledgment of the importance of health status and self-management. Taking control and evaluating the outcomes of self-management were also their main strategies.

Overall, self-management, as suggested in the findings of these grounded theory studies, is a process comprising four to five phases. The process requires individuals' self-management awareness, perception, and understanding of their conditions. It entails the search for, and attempts to make the most of, treatments. Life adjustment is also included in these themes.

Literature that deals specifically with elderly groups provides mixed findings about their self-management. A study by Jitapunkul, Krungkraipetch, Kamolratanakul, & Dhanamun (2001) reported that approximately one-in-twenty elderly Thais had low levels of self-management. However, several other studies reported that they had moderate levels of overall self-management and of particular self-management aspects, such as physical activities/ exercise, nutrition, daily hygiene, and responsibility for health (Kard-udom, Kaewdang, & Namwong, 2007; Tangpaisarn et al., 2007). They also had high levels of self-management in some aspects, such as spirituality (Kard-udom et al., 2007; Tangpaisarn et al., 2007). Regarding interpersonal relationships/ sociability and stress management, two studies indicated different results. One suggested that elderly Thai people had high levels (Kard-udom et al., 2007), whereas another claimed they had moderate levels of self-management in these domains (Tangpaisarn et al., 2007). Minimal levels of self-management were also reported among those under the Universal Coverage Health Scheme (Srakshetrin et al., 2004), which may be related to limited resources and incomes as most recipients of this insurance system had minimal incomes.

There is limited literature about self-management of chronic pain in elderly Thai people. Elderly Thais with chronic pain reported their self-management as 'go to hospital,' and 'self care' (Promsuwan et al., 2010; Suwannarat, 2001). Rest and medication have been reported as key management strategies for those with knee pain osteoarthritis (Jansoontraporn, 2005). There is some literature on Thai elderly people's self-management of other conditions. For those living alone, two self-management domains adopted were attentive caring for their body and mind, and being self-dependent. Strategies involved managing symptoms, promoting general health, using religious approaches to deal with psychological effects, living day-by-day as well as planning for the future within the limitation of their abilities and resources (Intarapirom, Chanprasit, & Choowattanapakorn, 2008). These are similar to self-management strategies for chronic illness and chronic pain suggested in other countries discussed previously.

While the factors influencing self-management of chronic pain have received limited attention (Khonthieng, 2005), some literature has considered the influences that affect self-management of other conditions among Thai elderly people. Malathum's (2001) study, for example, identified five factors that influenced perceived abilities in self-management for promoting health in elderly people living in the community: age, education, perceived family support, perceived friend support, and chronic health problems. Functional ability and perceived health status mediated the effects of these factors and also affected self-management (Malathum, 2001). In addition, Surit (2002) suggested that social support and overall health beliefs were associated with self-management in elderly Thais with Type 2 diabetes mellitus. Kirdphon (2003) indicated that communication problems with health personnel could impede self-management, while Jaiyungyuen (2008) claimed that factors associated with good self-management for elderly people with hypertension were: high level of education, family income, perceived family support, and self-efficacy. A study by Intarapirom et al. (2008) revealed that barriers to self-management for elderly people living alone included limitation of physical functioning due to chronic illness and lack of resource support.

Overall, the four main influences affecting self-management for chronic illness and chronic pain (the nature of the illness; human, material, and financial resources for self-management; social and environmental determinants; and personal factors) reported in international research, were also highlighted in the findings of Thai studies.

2.5 SUMMARY

The first section of this chapter presented information about Thailand and Thai elderly, who constitute over 10% of the Thai population. Although decreasing over time, poverty is a major problem in the country, especially in the north-east region. Until the late nineteenth century, the Thai health care system was based mainly on cultural beliefs, then Western-oriented medicine was introduced and there was increased service coverage. Health services are predominantly under the control of Ministry of Public Health. The National Plan for Older Persons was developed in 1982, and the second plan is used currently to provide support for the Thai elderly people; however, its implementation still requires improvement regarding coverage and quality of support.

The second part of this chapter analysed literature about chronic pain. Pain is a subjective experience. Chronic pain is a common problem among elderly people and has considerable effects on their well-being. It is influenced by demographic, genetic, social and lifestyle, psychological, and co-morbid factors. Management comprises pharmacological and non-pharmacological treatments, with a combination of these two types recommended as providing the most effective form of management.

The final part of the chapter highlighted literature about self-management, which is a key factor in achieving well-being and taking control of chronic conditions, including chronic pain. Self-management strategies for chronic pain are similar to those for chronic illness.

CHAPTER THREE

METHODOLOGY

3.1 INTRODUCTION

In this chapter, the methodology of the study is described. It commences with an overview of qualitative research and nursing, including ontology, epistemology, and methodology in relation to qualitative research. A summary of symbolic interactionism, which provides a framework for grounded theory, is then presented. This is followed by a discussion of grounded theory, including the nature of grounded theory, a critique of the approach, and justification for using Strauss and Corbin's method to grounded theory in the present study.

3.2 TENETS OF QUALITATIVE RESEARCH

3.2.1 Ontology and qualitative research

Research is shaped by ontology, epistemology, and methodology, which are consistent within each study. Ontology is the initial position, and epistemology and methodology follow ontological assumptions logically. The concept of ontology refers to the assumptions that an approach to enquiry makes about the nature of social reality (McCann, 1999). In other words, ontology answers the questions: "What kind of being is the human being? What is the nature of reality?" (Denzin & Lincoln, 2005, p. 22). Different individuals or groups espouse different realities (Creswell, 2007; Munhall, 2007). For example, different paradigms regard reality as naïve realism, where the 'real reality' exists and can be apprehendable; critical realism, where the 'real reality' exists imperfectly and may be apprehendable; historical reality, where reality exists virtually and is formed by several factors and shaped up over time; or relativism, where reality is constructed by local influences (Guba & Lincoln, 1994). Quantitative investigators have a fundamental belief that a real world, purely driven by natural causes (objective reality), exists. They try to be as objective as possible in pursuing knowledge (Polit & Hungler, 1999). However, qualitative researchers assume that social realities are multiple, dynamic and context-dependent. They seek to ascertain the participant's interpretation of social reality. These interpretations are deeply embedded in complex relationships that cannot be separated and generalised to population groups (Joniak, 2000). Qualitative researchers assume that reality is internally and socially constructed by each individual, from within her/his own particular contextual situation (Joniak, 2000). Qualitative studies identify multiple realities, which are confirmed by evidence such as the use of multiple direct quotes from different participants (Creswell, 2007).

3.2.2 Epistemology and qualitative research

Epistemology is the theory of knowledge that is interested in the way humans understand the social world (Holloway & Wheeler, 2010). It addresses the question "what counts as valid knowledge?" (Holloway & Wheeler, 2010, p. 21), and refers to the assumptions about the relationships between the inquirer and knowledge (Denzin & Lincoln, 2005). These relationships are guided by the answer to the question about ontology and cannot be simply postulated to any type of relationship (Guba & Lincoln, 1994). Epistemologies or theories of knowledge, such as objectivism, constructivism and subjectivism, explain and are embedded in theoretical perspectives or paradigms, in particular positivism, interpretivism, critical inquiry, feminism, postmodernism. In turn, these paradigms inform the methodology (Anfara & Mertz, 2006; Crotty, 1998). For example, positivists' beliefs in the 'real' reality or 'objective reality' lead their attempt to be as objective as possible in seeking knowledge (Guba & Lincoln, 1994; Polit & Hungler, 1999). Because qualitative researchers assume that social reality is context-dependent, consisting of an individual's experiences and interpretations, then the epistemological foundation of qualitative inquiry is to obtain knowledge from a deep understanding of the data and the context of the participant's experiences and interpretations (Joniak, 2000). Qualitative studies take place in participants' places, which are important contexts for understanding those being researched. Qualitative inquirers interact with, and try to minimise the distance from, the knowledge under study. Findings of such inquiry are developed from this interaction (Guba & Lincoln, 1994; Polit & Hungler, 1999).

3.2.3 Methodology and qualitative research

Methodology is the approach used to acquire knowledge in research topics. It comprises a set of methods, practices, procedures and guidelines (Denzin & Lincoln, 2005; Silverman, 1999). It refers to the philosophical principles, paradigms, and underlying assumptions on which the research is based. It affects the research question and the specific research approach with its strategies and procedures (methods). The combination of the methodological, epistemological, and ontological premises of the researcher may be termed a paradigm. Five major paradigms structure research: (1) *Positivism*, which asserts that objective accounts of the real world are understandable. Positivist methodology employs chiefly quantitative methods, including experimental manipulation and verification of hypotheses (Guba & Lincoln, 2005); (2) *Postpositivism*, which suggests that the objective account of the world cannot be produced perfectly, but is only partially understandable. Postpositivist methodology includes modified experimental manipulation, critical multiplism/ multiplexes, falsification of hypotheses, and may include qualitative methods (Guba & Lincoln, 2005); (3) *Critical theory*, which is concerned with the fact that values are embedded in reality and reality is shaped by social, political, cultural, economic, ethnic, and gender values; therefore, critical theory studies focus on human emancipation. Critical theory methodology governs dialogic/dialectical approaches (Guba & Lincoln, 2005); (4) *Constructivism*, which asserts that reality is not discovered but is historically and socially constructed, and this reality is verified and improved over time. Constructivist methodology includes hermeneutical and dialectical approaches (Guba & Lincoln, 2005); and (5) *Participatory*, which emphasises participation to address specific issues. Participatory studies contain an action that might improve the lives of the participants. Participatory methodology includes political participation in collaborative action inquiry, primacy of the practical, and use of language grounded in a shared experiential context (Guba & Lincoln, 2005).

Several paradigms have been discussed in the three grounded theory methodological approaches. Glaser and Strauss's (1992; 1967) grounded theory methodology is regarded as *postpositivism* by many researchers such as Guba and Lincoln (1994) and Annells (1996). Several authors frame Strauss and Corbin's (Corbin & Strauss, 2008; Strauss & Corbin, 1990, 1998) methodology within *postpositivism* because it has an ontology based on critical realism, views inquiry as a series of connected procedures, assumes multiple perspectives, and uses rigorous systematic steps in collecting and analysing data (Annells, 1996; Creswell, 2007; Mills, Bonner, & Francis, 2006a). Annells (1996) suggested that Strauss and Corbin's methodology also incorporates *critical theory* because the application of the conditional matrix in the analysis process is most likely to be related to factors such as social class, gender, and power.

Moreover, Mills (2006a) indicates Strauss and Corbin's acknowledgement that study findings are shaped by interaction between researchers and participants is similar to *constructivism*. Charmaz's (2006) methodology fits more with the *constructivist* paradigm because its findings are created/constructed from the interplay between investigators and participants (Charmaz, 2006; Mills et al., 2006a).

Choice of research methodology should be consistent with the aim and focus of the study (Finlay & Ballinger, 2006). For example, qualitative methodology places emphasis on the meanings that participants give to thought/actions, or participants' views, within the context in which research phenomenon occurs (Creswell, 2007; Holloway, 2008). Methodology is also based on epistemology and ontology (Holloway, 2008, p. 152). Corbin and Strauss's (2008) ontological assumptions indicated that situations in the social world are not simple, but are influenced by multiple factors. These factors interact with each other, and the ways of interaction are frequently unforeseen. Implications for grounded theory methodology, therefore, are it has to be complex, to be able to understand and explain situations within their contexts. Similarly, process is considered to be an integral part of grounded theory methodology. The process is a consequence of the ontology that experience and action/interaction follow the experience, and are shaped and reshaped, in responding to consequence and unforeseen events.

The underlying assumptions of grounded theory are compatible with symbolic interactionism, the philosophical basis of grounded theory methodology. The perspective of symbolic interactionism fits in with grounded theory's ontology, epistemology and methodology. For ontology, symbolic interactionism and grounded theory regard reality as it exists "in a world of shared symbolic meanings" (Aldiabat & Navenec, 2011, p. 1068). For epistemology, symbolic interactionism and grounded theory encourage an interactive relationship between researchers and research participants in the natural research field in order to understand situations in participants' contexts. For methodology, symbolic interactionism and grounded theory highlight that the best way for researchers to discover human beings' experiences is through their interaction with participants in the context of the study phenomenon (Aldiabat & Navenec, 2011; Annells, 1996). More details about symbolic interactionism are discussed in the following section.

3.3 SYMBOLIC INTERACTIONISM AS A FRAMEWORK FOR GROUNDED THEORY

The theoretical framework for grounded theory is based, in part, on the philosophical perspective of symbolic interactionism (Holloway & Wheeler, 2010; Strauss & Corbin, 1998). The term symbolic interaction refers to the particular and unique characteristics of interaction as it happens between human beings. Individuals do not respond directly to the actions of one another, but instead, respond based on the meaning attached to such actions. The interpretation of the meaning of each other's actions is the mediator of human interaction (Blumer, 1969; Holloway & Wheeler, 2010).

Blumer (1969) pointed out that there are three fundamental principles of symbolic interactionism, which are related to meanings, language, and thought. First, individuals act towards things, either physical or abstract, on the basis of the meanings that they give to those things. Second, the meanings of such things are not inherent in the things, but arise out of the social interaction that the individuals have with each other. Third, individuals make and modify the meaning of such things through an interpretative process when dealing with such things (Sritanyarat, 1997). The theories of symbolic interactionism are primarily inductive and empirical; they move from specific observations to general conclusions (Speziale & Carpenter, 2007), and are derived from three main concepts: the self, the world, and social action (Charon, 2007; Klunklin & Greenwood, 2006).

Symbolic interactionism views *self* as *an object* that is created as individuals interact with other, and as *a process* through which the object is created (Farberman, 1991; Hewitt, 1994). 'I' and 'Me' are two terms used to explain the self. In the subject phase of the process whereby the self interacts, individuals are subjects that respond to objects in their situations. The 'I' designates this phase of the process (Farberman, 1991; Hewitt, 1994). In the object phase of the process, individuals imagine themselves as objects in their situation and the 'Me' represents the self (Farberman, 1991; Hewitt, 1994). The process by which the 'self' is created and recreated occurs by interaction between the 'I' and the 'Me,' which is an ongoing process (Farberman, 1991; Hewitt, 1994). Individuals act as the subject 'I' to respond to their situations at one moment, then they image themselves through the looking glass of others, then further respond as an ‘I’ to the ‘Me’ or this image of self (Hewitt, 1994).

Symbolic interactionism views the social world as a world of objects, which is the focus of action when individuals interact with others (Hewitt & Hewitt, 1986). The social world consists of physical, social, and abstract objects (Blumer, 1969). Tangible and abstract objects can invite and constrain action (Hewitt, 1994). Objects are described by giving their names or symbols. Using symbols is a primary method of human interaction. “Symbols are indirect ways of representing physical objects, other people, experiences, and even abstract ideas and thoughts” (Hewitt & Hewitt, 1986, p. 9). Symbols are represented mainly in words, through the use of language in the world of human beings (Blumer, 1969).

Social action is the process in which the self and the social world are constructed (Blumer, 1969). Individuals act on the basis of their definitions of situations and roles. The definition of situations allows individuals to grasp the overall nature of the particular situation, and to have knowledge in relation to others and of themselves in that situation (Hewitt, 1994). The symbolic interactionist approach to role emphasises two ideas (Hewitt, 1994). The first emphasis is that individuals have their sense of role structure in situations. Both the situation and individuals in that situation are defined and named (Hewitt, 1994). The second emphasis is that a role is an organised set of ideas to guide the behaviours of individuals (Hewitt, 1994). Symbolic interactionism defines role as a perspective from which individuals are involved in a social situation (Hewitt, 1994). Role making is the process wherein individuals act in order to fit the definition of the situation, their role, and the action of others (Hewitt, 1994). Role taking is the process wherein individuals imagine themselves and their situation from the perspective of others. In addition, individuals also take into account the generalised other, which is the image of others in wider communities, to construct their roles (Hewitt, 1994).

Crooks (2001) suggested three crucial guiding points for studies using symbolic interactionism: an emphasis on the interaction between the self and the social world, the self and the world as dynamic processes, and the importance of the capacity of the self to interpret the social world. Symbolic interactionism stresses the importance of individuals’ actions, perceptions, ideas, and intentions, as well as the context in which these occur (Blumer, 1969; Charmaz, 2005; Holloway & Wheeler, 2002). The tenet of symbolic interactionism contributes profoundly to, and underpins, the methodology of grounded theory.

In employing symbolic interaction in the present study, the researcher took into account the definition of the chronic pain situation, role making, and role taken by the elderly participants. This was achieved through exploring their points of view. In addition, the context of their living in rural communities in north-east Thailand, was also examined. This included the social context of the participants, their family members, groups, communities, and the wider societies that affected the way they managed their chronic pain.

3.4 GROUNDED THEORY

Qualitative methods can lead to greater depth and background of issues than would be possible using quantitative methods alone (Holloway & Wheeler, 2002, 2010; Kinn & Curzio, 2005; Strauss & Corbin, 1998). A grounded theory method was used to guide data collection and analysis in the present study. Grounded theory is a qualitative research methodology used to investigate and explain phenomena in natural settings. It differs from other qualitative inquiries as its main purpose is, not to describe a phenomenon, but to generate "a theory, or a theoretically complete explanation about a particular phenomenon" (Speziale & Carpenter, 2007, p. 136). The developed theory is derived from data through application of practical procedures, and represents basic social structures/processes. Grounded theorists believe that each particular social group has a common perception about their social world and shares a basic social psychological problem, in which a clear articulation about the problem is not necessary (Speziale & Carpenter, 2007). The processes and products of research in grounded theory are shaped by the data rather than from a preconceived theoretical perspective (DeLorme, Huh, & Reid, 2007b). Strauss and Corbin described grounded theory as a theory "that was derived from data, systematically gathered and analysed through the research process" (Strauss & Corbin, 1998, p. 12), and "that is inductively derived from the study of the phenomenon it represents. That is, it is discovered, developed, and provisionally verified through systematic data collection and analysis of data pertaining to that phenomenon" (Strauss & Corbin, 1990, p. 23).

Theory that emerges from a grounded theory study can be either substantive or formal. A substantive grounded theory provides an explanation of the phenomenon in a specific context. It is derived from data collection and analysis of a particular phenomenon based on grounded theory practice and principles. A formal theory is generated for a conceptual inquiry (Speziale & Carpenter, 2007). It offers a broader view of phenomena across a range of situational contexts, which is not specific to a group or setting. It emerges from analysis of the phenomena in a variety of situations based on grounded theory methodology. More abstract analysis and higher conceptual integration of substantive theory in a variety of contexts and group can also generate a formal grounded theory (Bryant & Charmaz, 2007; Strauss & Corbin, 1998). Substantive and formal theories are classified as middle-range theories, which can be applied in practice and tested empirically (Speziale & Carpenter, 2007). Middle-range theories have a narrow scope and comprise fewer concepts and propositions than grand theories and conceptual models (Fawcett & Garity, 2009). The ability of grounded theory to guide the development of middle-range theories can contribute to knowledge in various disciplines such as nursing (Speziale & Carpenter, 2007)

Grounded theory comprises the processes of induction, deduction, and verification (McCann & Clark, 2003c). These methods are used to generate theory from the data by identifying a core theory, and a relationship among the core category, related categories, and concepts in order to explain the phenomena (Holloway & Wheeler, 2002, 2010; McCann & Clark, 2003a). An emic (insider) approach is used in grounded theory to obtain the participants' perspectives (Harris, 1976; Holloway & Wheeler, 2002, 2010). In the present study, the emphasis is on investigating the real world of elderly participants with chronic pain, to understand how they deal with their chronic pain, and grounded theory is the most appropriate methodology to enable this (Holloway & Wheeler, 2002, 2010).

3.4.1 The nature of grounded theory

There are seven key components in grounded theory: theoretical sensitivity, theoretical sampling, constant comparative analysis, coding and categorising data, theoretical memos and diagrams, literature as a source of data, and integration of theory (Charmaz, 2006; McCann & Clark, 2003a).

3.4.1.1 Theoretical sensitivity

Theoretical sensitivity refers to “the ability to pick up on subtle nuances and cues in the data that infer or point to meaning” (Corbin & Strauss, 2008, p. 19). In other words, it refers to the ability of the researcher to distinguish between less and more relevant data and obtain understanding of the meaning of the data (Holloway & Wheeler, 2002, 2010). Theoretical sensitivity of researchers is important for conducting a grounded theory study throughout the process of data collection and analysis. Researchers who have theoretical sensitivity enter the study field with an awareness of the subtleties of the meaning of the data. It can be obtained from the researcher’s past, professional, and personal experiences as well as from a preliminary literature review (McCann & Clark, 2003a). In the present study, the researcher was aware of some sensitising data from participants’ comments at the beginning of interviews, such as the experience of pain as a feeling of being ‘tortured’ with the first interviewee. This experience was reported commonly as the physical impact of chronic pain; and the second interviewee’s attempts to identify pain treatment that most suited her situation, which was conceptualised in the second category.

3.4.1.2 Theoretical sampling

Theoretical sampling refers to a method of data collection based on emerging concepts/themes in order to look for categories and the properties and dimensions of categories, to explore variations among concepts, and identify relationships among concepts (Corbin & Strauss, 2008; Strauss & Corbin, 1998). It is a specific, strategic, and systematic method of seeking and gathering pertinent data in order to elaborate and refine categories in the emerging theory. Initial purposive sampling in grounded theory is the beginning step of theoretical sampling. For purposive sampling, the researcher establishes inclusion and exclusion criteria before entering the field, whereas theoretical sampling directs the researcher’s data collection with the purpose of deriving data to help explicate categories (Charmaz, 2006).

In theoretical sampling, data analysis at the beginning of data collection forces the researcher to identify concepts as well as questions about emerging concepts. These questions guide further data collection. Data are always open to what the researcher may continue to discover about these concepts, including their properties and dimensions. Theoretical sampling becomes more specific with time as the researcher probes into more data to refine and saturate the key categories. Data collection leads to data analysis, and the next round of data collection is based on the results of the previous analysis. These cyclical processes are conducted until data are saturated.[23]

Theoretical sampling differs from conventional sampling methods because it responds to derived data (Corbin & Strauss, 2008). It is different from sampling to address initial research questions, sampling to reflect population distributions, sampling to find negative cases, and sampling until no new data emerge (Charmaz, 2006). Sampling in quantitative research aims for generalisability, to be representative of the larger population, but theoretical sampling is purposive sampling based on theoretical concerns. For theoretical sampling in grounded theory, negative cases arise in the data, and examination of these cases helps explore variations of the categories, not simply importing them into the research process. Theoretical sampling is distinguished from sampling until no new data emerge, in that theoretical sampling does not aim to find the same pattern but seeks to develop theoretical categories (Charmaz, 2006).

Corbin and Strauss (2008) suggested two advantages of theoretical sampling. It enables the researcher to uncover relevant concepts and explore the concepts in depth. Charmaz (2006) pointed out that theoretical sampling helps the researcher fill gaps in the data. It ensures that the researcher identifies well-defined and robust categories. Another use of theoretical sampling includes helping the researcher to delineate and saturate the properties of categories, check assumptions about categories, saturate category properties, distinguish between categories, clarify relationships between categories, and identify variations among concepts (Charmaz, 2006). Hood (1983) claimed that theoretical sampling is the pivotal strength of grounded theory because it enables the researcher to generate a theory that matches the data.

In the present study, purposive sampling was carried out at the beginning step of data collection, with specific inclusion criteria (male or female Thai elderly, aged 60 years or over; experiencing chronic pain for at least 6 months; living in the selected villages; and able to communicate in conversational Thai or north-east Thai dialect) and Exclusion criteria (confusion, any acute and serious illness, or experiencing acute pain

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[23] The data are regarded as saturated when no new relevant data emerge, the category's properties and dimensions are well developed, the categories are linked well, and these relationships are validated (Charmaz, 2006; Strauss & Corbin, 1998).

at the time of the study). Analysis at the beginning of data collection gave guidance to the researcher for subsequent data collection in order to obtain more details about the emerging concepts; for example, after the concept of seeking treatment emerged from interviews with the first two interviewees, data related to this concept was probed by collecting data from observations during elderly participants sought treatments at different settings (a health centre, a private clinic, a private hospital, and a public hospital).

3.4.1.3 Constant comparative analysis

Constant comparative analysis refers to a process of continuous comparison between new data and previous data, where data collection and data analysis are undertaken simultaneously (McCann & Clark, 2003a; Speziale & Carpenter, 2007). It is an analytic, inductive process of comparing different pieces of data, such as data with data, data with category, category with category, and category with concept, in order to generate concepts and theories (Charmaz, 2006; Corbin & Strauss, 2008).

Comparative analysis is one of the major features of social science research. In the process of comparative analysis, the researcher makes a comparison between data, such as incident to incident, to search for similarities and differences. Data are grouped together, or in other words, have the same code, if they are conceptually similar. Then, within-code comparison, or the comparisons among data in the same group/code, leads to exploration of the different properties and dimensions of the category. Constant comparative analysis is necessary to differentiate categories. It enables the researcher to identify those properties and dimensions that are unique to each category (Corbin & Strauss, 2008).

In the present study, a continuous comparison was made between data, category and concept to seek for similarities and differences. For example, In comparing data derived from interview with the first interviewee and second interviewee, the researcher found that both used Western-oriented and traditional medicines to manage their chronic pain; however, the former used to both treatment simultaneously whereas the latter used either Western-oriented and traditional medicines treatment at a different period of time and then change to another treatment later. Also, their expressions about these types of treatments and practitioners were different. The researcher then continued to compare these incidents to other new data, to the concepts of *evaluating treatment* and *evaluating practitioners*, and to the category *seeking the most suitable treatment*.

3.4.1.4 Coding and categorising data

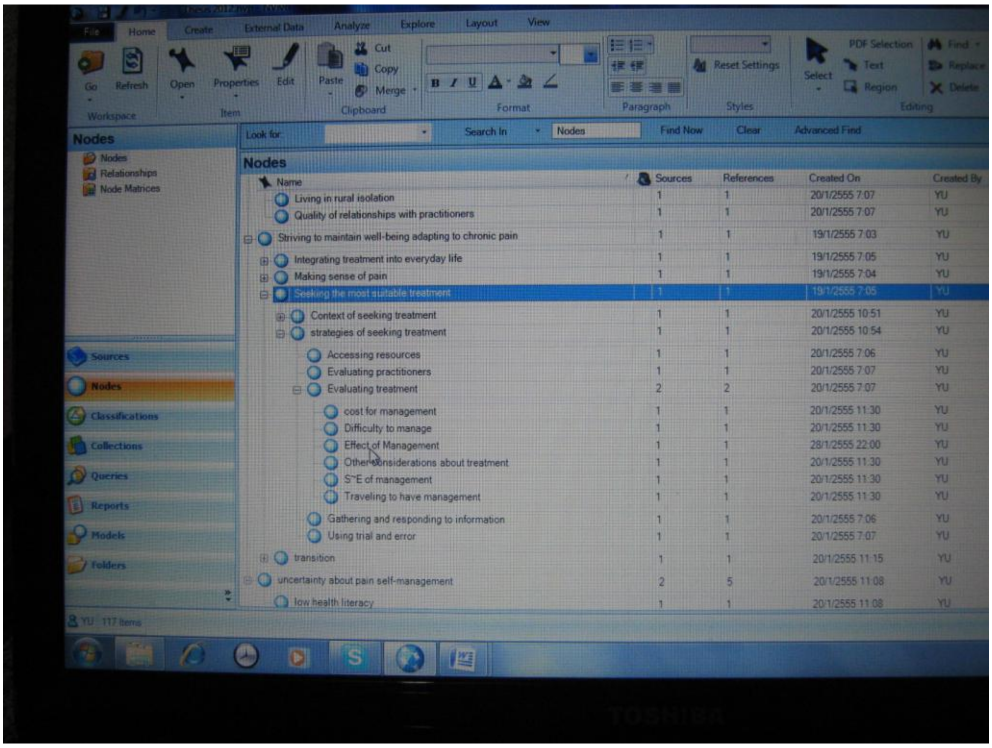
Coding is the process of analysis where data are examined, conceptualised, reduced, elaborated, and related, to assign a name or a number. There are three steps to coding, which is a cyclical process: open, axial, and selective coding (Strauss & Corbin, 1998).

3.4.1.4.1 Open or Level I coding is the first step of coding where the raw data are broken down and given conceptual labels, and the properties and dimensions of the concepts are discovered. Data with similar properties and dimensions are labelled with names that represent their common features. Open coding involves being open-minded about what to find in the data. It is preceded by examining each line of data closely, using a constant comparative approach, and then defining the actions or events within the data. The labels given should be conceptual rather than simply descriptive of the action (Charmaz, 2003; Strauss & Corbin, 1998).

3.4.1.4.2 Axial or Level II coding seeks to categorise data and make links between categories and subcategories. Categorising is the process of identifying categories into a broader classification. A category is obtained from grouping data together in a more abstract concept, through constant comparative analysis. In axial coding, the category is treated as an axis and the researcher analyses data around this category, delineating relationships and specifying the dimensions of the category. Practically, axial coding does not always occur separately from open coding; it rather happens concurrently as the concepts are normally connected to other concepts during open coding (Charmaz, 2006; Corbin & Strauss, 2008; McCann & Clark, 2003a). Axial coding takes place when the researcher identifies one open coding as an axis or the core phenomenon to be focused on, and then analyses data to create concepts surrounding this core phenomenon. These concepts include causal conditions, which are factors that cause the core phenomenon to happen; strategies, which are purposeful action in response to the core phenomenon; contextual and intervening conditions, which are factors that influence the strategies; and consequences, which are outcomes resulting from the strategies (Creswell, 2007; Strauss & Corbin, 1990)

3.4.1.4.3 Selective or Level III coding is a process of coding to identify a core category and make links between the core and other categories. Selective coding is the process of integrating and refining the theory (Corbin & Strauss, 2008). It is the final step of coding in which the researcher develops a statement that explains the interrelationship of other categories in the study findings (Creswell, 2007; Strauss & Corbin, 1990). Six criteria are used for assessing a core category: it occurs frequently in the data; it helps explain variation in the data; it has a close relationship with other categories; when identified in a substantive study, it can provide guidance to implement a general theory into practice; it is able to progress forward; and it allows maximum variation in the analysis (McCann & Clark, 2003a).

In the present study, open coding and axial coding were carried out almost at the same time. While the researcher broke down raw data and gave them conceptual labels, their broader classifications also came concurrently; for example, “I went to see them all. I went everywhere. I also went to see Doctor Than and to Thon private hospital. I did not recover. I still have pain as before (I:10).” were coded into an open coding *evaluating treatment* under an axial coding *seeking the most suitable treatment* simultaneously (Figure 3.1).



Look for: Search In: Nodes Find Now Clear Advanced Find

Nodes

Name	Sources	References	Created On	Created By
Living in rural isolation	1	1	20/1/2555 7:07	YU
Quality of relationships with practitioners	1	1	20/1/2555 7:07	YU
Striving to maintain well-being adapting to chronic pain	1	1	19/1/2555 7:03	YU
Integrating treatment into everyday life	1	1	19/1/2555 7:05	YU
Making sense of pain	1	1	19/1/2555 7:04	YU
Seeking the most suitable treatment	1	1	19/1/2555 7:05	YU
Context of seeking treatment	1	1	20/1/2555 10:51	YU
strategies of seeking treatment	1	1	20/1/2555 10:54	YU
Accessing resources	1	1	20/1/2555 7:06	YU
Evaluating practitioners	1	1	20/1/2555 7:07	YU
Evaluating treatment	2	2	20/1/2555 7:07	YU
cost for management	1	1	20/1/2555 11:30	YU
Difficulty to manage	1	1	20/1/2555 11:30	YU
Effect of Management	1	1	28/1/2555 22:00	YU
Other considerations about treatment	1	1	20/1/2555 11:30	YU
S~E of management	1	1	20/1/2555 11:30	YU
Traveling to have management	1	1	20/1/2555 11:30	YU
Gathering and responding to information	1	1	20/1/2555 7:06	YU
Using trial and error	1	1	20/1/2555 7:07	YU
transition	1	1	20/1/2555 11:15	YU
uncertainty about pain self-management	2	5	20/1/2555 11:08	YU
low health literacy	1	1	20/1/2555 11:08	YU

Figure 3.1 An example of coding

3.4.1.5 Theoretical memos and diagrams

Memos are the researcher's written records, for example, analysis, ideas, interpretations, query, and guidance for further data collection (Strauss & Corbin, 1998). The records are a specialised type, containing the products of the researcher's analysis (Corbin & Strauss, 2008). Strauss and Corbin (1998) suggested several types of memos: code notes, theoretical notes, and operational notes. However, they also suggested that the important issue when writing memos is not the form of memos, but the actual doing and getting into the habit of writing memos (Corbin & Strauss, 2008). The researcher should begin memo writing with his or her first analysis and continue doing them throughout the analysis. Memo writing is a pivotal method in grounded theory since it helps the researcher to analyse and code data in the early stage of the research process (Charmaz, 2006).

Memos differ from field notes in that memos are more in-depth, complex and analytical thoughts about a situation, whereas field notes are data that may or may not have some conceptual and analytic remarks. Some types of field notes are suggested: observational notes, which describe the actual situations; theoretical notes, which present the researcher's thoughts in relation to the phenomena; and methodological notes, which remind the researcher about the research process (Corbin & Strauss, 2008).

The aim of diagrams is to facilitate the analytical process (Corbin & Strauss, 2008). Diagrams are visual tools representing relationships among categories, or analytic concepts (Corbin & Strauss, 2008; Schreiber, 2001), and have several uses: they help the researcher to organise data, to record concepts and relationships among concepts, and to integrate the data; and they enable systemic and organised ways for the researcher to elaborate their research findings. Miles and Huberman (1994) claimed that the best way to explain a conceptual framework is to do it graphically (Miles & Huberman, 1994).

Corbin and Strauss (2008) suggested several general features of memos and diagrams. Content, degree of conceptualisation and length of memos and diagrams depend on the stage of the research, the intent, and the data. Each researcher develops his or her own style for writing memos and diagrams through the research process. Apart from their function of keeping a record of analysis and storing information, memos and diagrams are crucial because they force the researcher to work with concepts and enhance the researcher's creativity and imagination, which, in turn, stimulates new insight into the data. They also reflect analytic thought and remind the researcher about the need for logical and coherent thought. Memos and diagrams keep analytic ideas that can be sorted, ordered and reordered, and retrieved according to the evolving analytic scheme. They suggest the need for further development and refinement of the concepts. After an analytical session, the researcher should write memos that sometimes can be in the form of a few generative ideas or sentences.

When writing memos and diagrams, the researcher should take notes immediately when having ideas; update memos and diagrams regularly; make a list of concepts and sub-concepts for reference; and be more conceptual than descriptive, but flexible and not overly concerned about correctness that may decrease creativity. In the case where some codes are different at the beginning of analysis, but become similar during the consequent analysis, the researcher should take notes and re-compare for similarities and differences. For impressions during interviews or observations, the researcher should take notes separate from memos (Corbin & Strauss, 2008).

Memos and diagrams become more complex as the research progresses (Corbin & Strauss, 2008) and are important as forms of data collection in the research process. They are part of qualitative analysis, which involves a complex and cumulative way of thinking, and are accurate ways to keep track of analysis, especially lengthy research projects, and those conducted by two or more people in research teams.

In the present study, memos and diagrams were updated regularly. Examples of memo writing and the use of diagrams during data collection and analysis are shown in Table 3.1 and Figure 3.2, respectively.

Table 3.1 An example of memo writing.

Management
1. Modern medicine
1.1 Public health care services
1.1.1 Health centre: taking oral medications, applying balm, having injection, or a combination.
1.1.2 District hospital: taking oral medications, applying balm, having injection, or a combination.
1.1.3 Provincial hospital: taking oral medications, applying balm, having injection, planning to do an operation, or a combination.
1.1.4 Centre/ University hospital: planning to do an operation.
1.2 Private services
1.2.1 Clinic: taking oral medications, having an injection, having physiotherapy, having injection into the pain part (e.g. knee joint, shoulder joint), or a combination.
1.2.2 Over-the-counter: a set of unknown medications, the medications of Doctor Daeng
1.2.3 The military doctor
1.2.4 The quack
2. Traditional medicine
2.1Herbs
2.1.1 Oral herbs
a) Boiled herbs:
1) Known: "Mok Bua Ian (never wipe out fog)" หัวน้อยชมพูดอกแดง Thong Pan Chang flower (Rhinacanthus nasutus Kurz) and ต้นบ้านราง ยาประดง ต้นใต้ใบ เครือเอ็นอ่อน ว่านหัวข้อ

เครือตาปลา)fish eye ivy), boiled medications called “Khoa Bug Heuy, some sedges (own grown or buying from others)
2) Unknown: prepared by others
b) Fresh herbs: Aloe Vera,
c) Powder herbs: medications of Doctor Phiboon, the medications of “kindness”
d) Herbal juices: fruit juices
e) Herbal liquid: liquid of Bai Ya Nang (Tiliacora triandra Diels), “Yong Hurng Traditional Medicine” (Liquid herbal medicine)
f) Herbal tablets/capsules: Lingzhi (Ganoderma Lucidum, Chinese medicine mushroom), Tumeric (Curcuma longa Linn.)
g) ‘Rubbed herbal medicine’ (placed some of the herbs and a stone into the water and then rubbed the herbs until the water was the desired colour, then the water was drank as liquid medication)
h) Bolus herbal tablets (ยาลูกกลอน)

2.1.2 Herbs to be applied

a) Steamed herbs for use as a warm compress:
1) A compress prepared by others (normally traditional medicine setting): ลูกประคบ)a set of herbs covered by cloth to be steamed and then pressed on parts of body in order to reduce pain).
2) Own preparation, comprising Nard, lemon grass, pao, galangal, Curcuma parviflora Wall, a kind of sedge.

b) Fresh herbs to be applied: Aloe Vera,
c) Herbal balm: เสลดพังพอน
d) Herbal ointment: for massaging (soaked in oil)

2.2 Massage

2.2.1 by traditional practitioners
2.2.2 by family members/relatives
2.2.3 by oneself

2.3 receiving treatment from traditional practitioners

a) ‘Doctor Chuen’ (massage, blow, and herbs to be boiled)
b) ‘The person at Non Nam Tang village’ (massage)
c) ‘Snake doctor’ (massage, apply medication, blow, and oral tablets)
d) ‘Naga doctor’(Hua Muang Tao village; pray, massage and oral medications)
e) ‘The person at the Chiang Mai village’ (massage and a set of medications with 3 tablets including a yellow tablet and a blue tablet)
f) ‘The person at Chiang Yuen’ (massage, some oral medications)
g) ‘The person at Kan Leung village’ (having an injection plus some oral medications in a package, including powder and tablet medications)
h) ‘The pointed doctor’ (‘pointed line and tendon’ to treat illness)
i) ‘The bowing doctor’ (people blow their wind or some liquid to the part of pain), rub or ‘holy water doctor’
j) ‘The medication for stabbing’ (being stabbed by a needle with some medications)
k) ‘The medication from the monk’

2.4 Acupuncture

3. Exercise
4. Wearing the stocking
5. Drinking alcohol
6. Avoid forbidden food: bamboo shoot; fermented food; fermented rice noodle; prawns; minnows; crabs; shell; rat; young leaves of trees (vegetable); birds such as chicken, wild birds etc.
7. Adjusting position
8. Accepting the pain

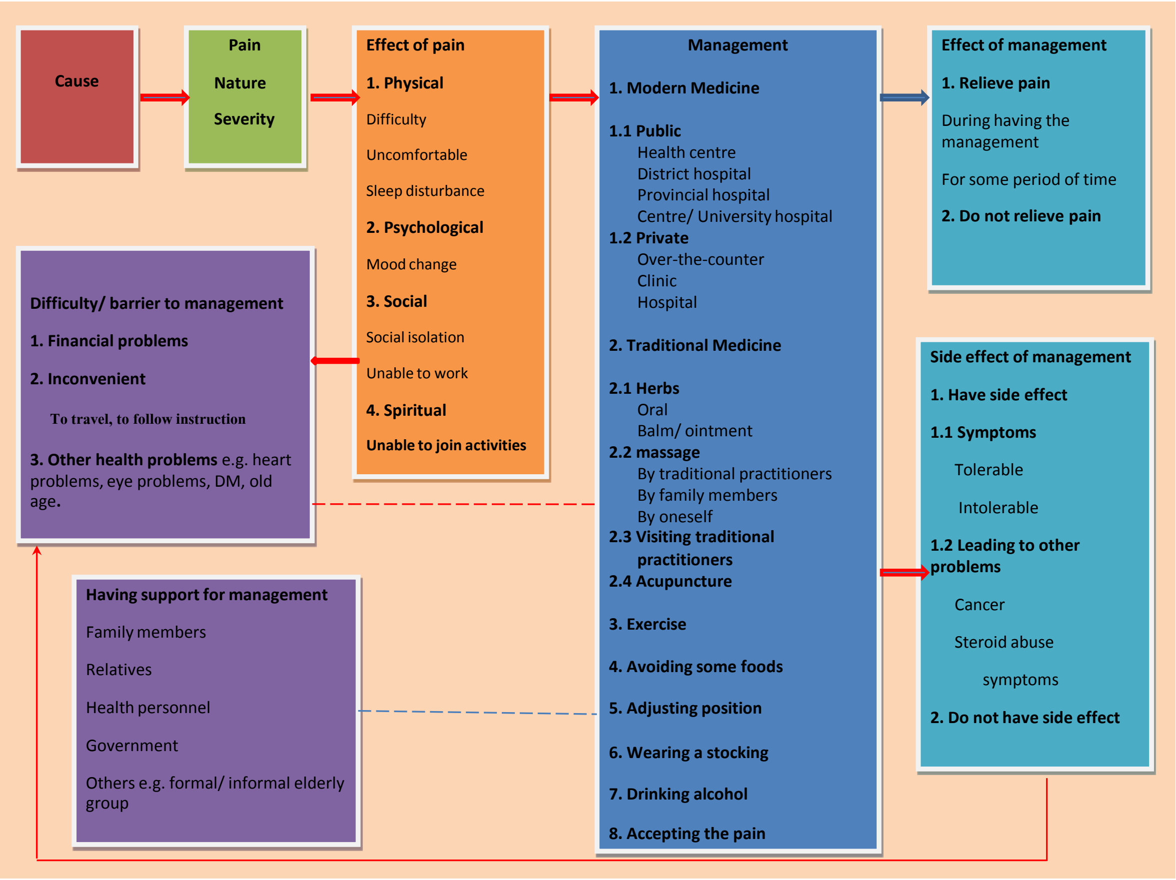


Figure 3.2 An example of the use of diagrams

3.4.1.6 Literature as a source of data

The role of the literature review in Glaser’s approach to grounded theory research differs to some extent from that of Strauss and Corbin (McCann & Clark, 2003a). Glaser suggested that the literature review in the substantive area under study should not be undertaken prior to entering the field. The rationale is to avoid preconceived ideas, which limit the researcher’s ability to generate categories. The literature should be reviewed only after analysis in relation to the emerging theory or after the core variable is generated sufficiently (McCann & Clark, 2003a; Wuest, 2007).

In contrast, Strauss and Corbin (1998) pointed out several benefits of using literature in grounded theory: (1) a preliminary literature review at the beginning of the study enhances the researcher’s theoretical sensitivity; (2) literature also provides useful primary and/or secondary sources of data; (3) questions about the data can emerge while undertaking the literature review; (4) literature can guide initial concepts and ideas for theoretical sampling; (5) in making constant comparisons, extant knowledge is one source for comparing data on similarities and differences in relation to the theoretical properties and range of dimensions of the data; (6) when the concepts emerge from the data, literature is useful for confirming the results; (7) at the process of generating emerging theory, the literature review is helpful by giving the basis for developing a general theory; and (8) after the theory has been developed, theoretical sampling of relevant literature allows enhancement, verification, and validation of the field knowledge (McCann & Clark, 2003a; Strauss & Corbin, 1998). It is important, however, that in using literature the grounded theory researcher should avoid imposing extant knowledge from literature onto the data.

Other researchers have also highlighted some of the benefits of engaging the literature review in grounded theory research, such as asserting that an initial literature review is necessary for writing a research proposal as justification to a research or funding committee (Wuest, 2007); it enables the researcher to identify gaps in existing knowledge and provide guidance about how to fill the gaps; and it helps the researcher to present the relevance of his or her results to the extant theory, or present how and to what extent his or her findings provide more knowledge than the extant theory (Charmaz, 2006).

In the present study, some parts of literature review; for example, chronic pain in Thai elderly people and health care services in Thailand, were undertaken prior to data collection (while writing proposal of the study project) whereas some literature, such as information about Thai herbal medicines announced by health personnel was reviewed during data collection and analysis, in order to verified data expressed by interviewees.

3.4.1.7 Integration of theory

“Theory denotes a set of well-developed categories (e.g., themes, concepts) that are systematically inter-related through statements of relationship to form a theoretical framework that explains some relevant social, psychological, educational, nursing, or other phenomenon. The statements of relationship explain who, what, when, where, why, how, and with what consequences an event occur.” (Corbin & Strauss, 1992, p. 22). Generally, theories have various properties: abstract, where some theories are more abstract, highly conceptual, and provide broader applicability than others (Strauss & Corbin, 1998); scope or generality, where those with wider scope can be applied for the greater number of disciplinary areas and tend to last longer (Hage, 1972; Strauss & Corbin, 1998); parsimony or power, where a powerful theory consists of few assumptions or theoretical statements (Bacharach, 1989; Hage, 1972; Hubbard, 1995); precision of prediction, where those with greater precision of prediction can provide better and more specific foresight (Hage, 1972); and accuracy of explanation, where theories with greater accuracy of explanation can describe situations more accurately (Hage, 1972).

Integration of theory is an ongoing process of interaction between the researcher and the data, to organise or to link categories around a central category, and to refine and to trim the resulting theoretical construction, from the first to the final steps of analysis (Corbin & Strauss, 2008; Strauss & Corbin, 1998). Integration is the process of putting all the categories together, which requires examining and sorting all the memos thoroughly, and may be the most difficult part of the research process. Sorting, re-reading memos, writing the story line, drawing diagrams, integrating the research materials and plain thinking are interrelated strategies that grounded theory researchers use to develop theory (Charmaz, 2006).

Hutchinson (2001) suggested that the generation and density of the theory are dependent on the discovery of a significant core category. Six important characteristics of core category have been discussed earlier in this chapter.[24] Three key strategies are used to develop and add density to the emergent theory. (1) Reduction sampling is used to reduce the number of identified categories, of which there are greater numbers at the beginning of theory integration, by grouping categories and subsuming them into broader categories. (2) A selective review of the literature considers literature related to the emerging concepts, and uses existing literature as data to refine the theoretical description. (3) Selective sampling of the data leads to collection of more data related to the category than seem central to the emerging theory. The purposes of this selective process of data collection are to develop and test hypotheses, to identify the properties of the main categories, and to achieve data saturation (Carpenter, 1995; McCann & Clark, 2003a; Speziale & Carpenter, 2007).

In the present study, four categories identified at initial analysis (exploring the pain and treatment, experiencing treatment, evaluating treatment and practitioner, and integrating treatment into everyday life) were reduced to be three categories (*making sense of pain*, *seeking suitable treatment*, and *integrating treatment into everyday life*) during later analysis. In addition, *striving to maintain well-being: adapting to chronic pain* was considered as central concept that linked these three categories together.[25]

3.4.2 Critique of grounded theory

Currently, there are three main approaches to grounded theory (Mills, Bonner, & Francis, 2006b): the classical approach initiated by Glaser and Strauss (Glaser, 1992; Glaser & Strauss, 1967), the Strauss and Corbin approach (Corbin & Strauss, 2008; Strauss & Corbin, 1990, 1998), and the constructivist approach espoused by Charmaz (2005, 2006).

The original book on grounded theory, *The Discovery of Grounded Theory* was published in 1967 (Glaser & Strauss, 1967). Since then, grounded theory has been taken in somewhat divergent directions (Charmaz, 2006). Strauss and Corbin’s (1990, 1998) version of grounded theory shares common characteristics with the classical

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[24] See Section 3.4.1.4 ‘Coding and Categorising Data,’ for more information.

[25] See Section 4.9.2.2 ‘Data analysis,’ Chapter Four ‘Methods of data collection,’ for more information.

version of Glaser and Strauss (1967), now expounded by Glaser (1992), in relation to theoretical sensitivity, theoretical sampling, constant comparative analysis, coding and categorising the data, literature as a source of data, integration of theory, and theoretical memos (McCann & Clark, 2003b; Strauss & Corbin, 1998). However, the methods differ in the degree to which these elements are applied.

The epistemological underpinning of classical grounded theory is more positivist, guided by critical realist ontology and the postpositivist paradigm, whereas Strauss and Corbin's (Corbin & Strauss, 2008; Strauss & Corbin, 1990, 1998) method to grounded theory is guided by social constructivist and poststructuralist or postmodern paradigms. In the classical approach, the role of the researcher is to be independent from the research process, whereas in Strauss and Corbin's (Corbin & Strauss, 2008; Strauss & Corbin, 1990, 1998) method, the researcher has a dialectic and active role. The emphasis in the classical version is on theory generation, while in the Strauss and Corbin version (Corbin & Strauss, 2008; Strauss & Corbin, 1990, 1998) the emphasis is on theory verification and testing. In relation to the focus in the field, the classical approach mainly emphasises symbols, interactions and context, and focuses primarily on a micro approach to the socially constructed world of participants. Strauss and Corbin's (Corbin & Strauss, 2008; Strauss & Corbin, 1990, 1998) method not only focuses on the socially constructed world of participants (micro) and but also on the cultural scene (macro). In so doing, they also place emphasis on structural, contextual, symbolic and interactional influences (McCann & Clark, 2003b).

There are differences between the roles of the literature review in each approach. As outlined earlier, the classical approach proposes that the literature review should not be undertaken until the analytic process of the emerging theory. However, Strauss and Corbin (1990, 1998) suggest that a preliminary literature review before data collection helps increase theoretical sensitivity. The main literature review, which should be done later, is to support the emerging theory. With regard to the emergence of the research problem, Glaser (1992) suggested that the problem should emerge in the process of conducting the study. Strauss and Corbin (1990, 1998) claimed that apart from emerging in the study, the problem could be obtained in three alternative ways: personal experience, suggestion by others, and from the literature. In relation to data collection and analysis, Glaser (1992) claimed that the grounded theory approach should be flexible, follow qualitative research practices and be guided by the participants and socially constructed reality (Glaser, 1992). Strauss and Corbin's method also provides a more structured model, with rules and procedures for guiding data collection and analysis (McCann & Clark, 2003b).

The criteria for evaluating research also differ in each approach. Glaser (1992) suggested four criteria: fit, the theory should relate directly to the data; work, the theory should be able to explain and interpret within the context; relevance, the theory should be relevant because it emerges from the data; and modifiability, the theory must be adaptable because the world changes constantly. Corbin and Strauss (2008) suggested ten criteria for evaluating quality of research using the grounded theory method:

(1) Fit, the findings should fit with the experiences of the researchers and the participants. The findings should resonate with the participants emotionally and professionally;

(2) Applicability or usefulness, the findings should offer new insights, be useful for policy development and practice modification, and provide additional knowledge for a profession;

(3) Concepts, the findings should be elaborated in terms of concepts or themes, and the concepts should be developed around their properties and dimensions*;*

(4) Contextualisation of concepts, the findings should explain contexts in which the study concepts occur;

(5) Logic, the findings should have a logical flow of ideas or sufficient links in their logic*;*

(6) Depth, the findings should have depth and substance, including more detail and richness than ordinary description*;*

(7) Variation, the findings should show variation along dimensions and properties, capturing the complexity of human life as much as possible;

(8) Creativity, the findings should be presented in a creative and innovative manner and provide new understandings of the study topic. This can be achieved by using consistent, creative, and flexible research procedures*;*

(9) Sensitivity, the researcher should present his or her sensitivity to the data and to the participants. Data collection should be driven by questions derived through analysis; and

(10) Evidence of memos, the researcher should present evidence of memos in the report. Memos are among the most necessary research procedures, which enable the researcher to recall insights, questions, and ideas during analysis (Corbin & Strauss, 2008).

The constructivist approach is advocated by Charmaz (2006) who compared this method with that of Strauss and Corbin (1990, 1998). She suggested that Strauss and Corbin's (1990, 1998) method emphasises discovering grounded theories, whereas her approach focuses on constructing grounded theories. In Strauss and Corbin's (1990, 1998) method, the emergence of theory from the data is separate from the scientific observer. The researcher discovers the theory from the data. Charmaz (2006) believes that data and theories are not discovered as the researchers are part of the studied field and data, and therefore their accumulative involvement and interaction leads them to construct grounded theories (Charmaz, 2006). Her approach assumes that a researcher's grounded theory is not a real picture of the studied field but an interpretation and social construction of reality (Charmaz, 2006).

3.4.3 Justification for using grounded theory and Strauss and Corbin's method

Grounded theory, in particular Strauss and Corbin's method (Strauss & Corbin, 1990, 1998), was chosen as the most appropriate methodology to guide the overall data collection and analysis in the present study for several reasons. First, grounded theory explains particular phenomena in natural settings, and the emphasis in this study is on investigating the real world lives of rural dwelling elderly participants with chronic pain. Second, the present study aims to develop a theoretical understanding of the way this group of elderly people self-manage their chronic pain in rural communities in north-east Thailand. Third, the primary purpose of grounded theory is to discover new theory. It is useful when a phenomenon has not been identified fully in terms of the individual’s point of view. The emphasis in this study is on investigating experiences and self-management of chronic pain from the view point of elderly people living in rural communities in north-east Thailand, where little research has been done.

There are several features of Strauss and Corbin’s (1990, 1998) method that are appropriate for the present study. The epistemology of Strauss and Corbin’s (1990, 1998) method is less positivist and shifts towards the postmodern paradigm (McCann & Clark, 2003b), which is more suitable in the present study. Moreover, their method puts emphasis on the macro, or cultural scene, and the micro, or the socially constructed world of the participants (McCann & Clark, 2003b). This emphasis suits the present study because the management of the elderly participants with chronic pain is influenced by various factors within themselves and their families, local communities, and wider society. Strauss and Corbin’s (1990, 1998) method allows the researcher to review preliminary literature before entering the field. Finally, this neophyte researcher found that the rules and procedures described in the paradigm model (Strauss & Corbin, 1990, 1998) were helpful as a guide to data collection and analysis, while remaining mindful of the possibility of forcing the data.

3.5 SUMMARY

This chapter presented the methodology for the study. It began by providing information about qualitative research and nursing, followed by details of symbolic interactionism, and the philosophical underpinning of grounded theory. The chapter also presented issues on the nature and discussion of grounded theory. The grounded theory methodology used in the present study is informed by the method of Strauss and Corbin (1990, 1998), and justification for using this method was discussed.

CHAPTER FOUR

METHODS OF DATA COLLECTION

4.1 INTRODUCTION

In this chapter, the methods of data collection, used to obtain an understanding of self-management of chronic pain by elderly people living in rural communities in north-east Thailand, are presented. It commences by providing information about the setting and ethical issues regarding the study. This is followed by an overview of the provinces and villages where data collection took place. Selection and recruitment of participants is then highlighted, followed by an overview of the elderly participants. An explanation of the researcher's assumptions and expectations is then discussed. Details of data collection methods and data analysis are also explained. In the final section of the chapter, the rigour of this grounded theory study is addressed.

4.2 SETTING FOR THE STUDY

4.2.1 Selected areas of study

The setting is crucial and should be relevant to the purpose of the study. The selected setting for the study was three provinces in north-east Thailand. The study aims to examine self-management of chronic pain in elderly people living in rural community[26] settings, so one village in each of these provinces was selected. The villages were drawn from the sub-districts of Chaturapak Phiman District, Roi-Et Province; Wapi Pathum District, Maha Sarakham Province; and Phon District, Khon Kaen Province.

4.2.2 Entering the field

Prior to obtaining ethical approval, copies of all documents relating to the study (study proposal, Participant Information Form, Consent Form, Socio-Demographic Questionnaire, and Aide-Memoire) were translated into Thai, in accordance with the WHO translation guidelines (WHO, 2003; WHO, 2011). The documents were translated into Thai by a bilingual native Thai and then back translated into English by

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[26] See Section 1.6 'Definition of terms,' Chapter One 'Introduction,' for the meaning of rural community in this study.

a bilingual native English-speaking person. As the study participants would be elderly, and possibly with limited formal education, the documents to be presented to them were written in plain language and were vetted by the study supervisors, translators and both ethics committees.

English and Thai versions of the ethics application were submitted to the Victoria University Human Research Ethics Committee, and the Ethical Review Committee for Research on Human Subjects, Ministry of Public Health Thailand (Appendices 5 & 6), and ethics approval was granted in February and July 2008 respectively.

After gaining ethics approval from both committees the researcher contacted gatekeepers to negotiate access. A formal letter from the researcher's workplace (Faculty of Nursing, Khon Kaen University) seeking permission to conduct the study (Appendices 11–13), together with the letter of ethics approval from the Ministry of Public Health, Thailand, were presented to the formal leader of each village[27] and to the public health care centre staff by the researcher. They were also provided with relevant information about the study and given an opportunity to ask questions. They were then asked to provide brief information about the study to potential participants, and to forward the contact details of those who expressed initial interest in taking part in the study to the researcher. The formal leaders of the villages announced these details to villagers using the village public announcement system.[28] Village health volunteers[29] were also assigned by health centre staff to assist with distributing this information. Informal village leaders, such as school teachers who were widely recognised in the villages, also helped distribute the research information to potential participants. In order to answer questions about the study to potential participants during the recruitment process, the researcher was present in the villages and went

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[27] Each village has a formal leader called 'Poo Yai Ban' who is elected by villagers and regarded as the leader at the lowest level of local Thai administration (Udyanin & Suwanagul, 2009).

[28] Village broadcasting systems are one of the main channels for disseminating information to villagers by their formal leaders (Hatthakham, 2004).

[29] Since 1981, village health volunteers have worked with health centre staff on a voluntary basis. However, they receive some incentives, such as free medical services from the government. Each volunteer works for 5–15 families to distribute information about, and promote community participation in, health activities (Regional Office for South-East Asia, 2007). In 2006, their roles included: disseminating health information to villagers, health surveys, health leadership, knowledge dissemination, and health service provision, referring patients to the health centre, community-based disease surveillance, and people's rights protection (Ministry of Public Health Thailand, 2007a).

frequently to village temples where many elderly people performed religious activities every morning.

4.3 ETHICAL CONSIDERATIONS

Six main ethical aspects relate to the study: obtaining informed consent; giving participants the right to withdraw from the study; ensuring privacy, confidentiality, and anonymity; preventing and minimising harm to the participants and the researcher; avoiding compromising the researcher's role in the study; and managing data storage, access and disposal.

4.3.1 Informed consent

Informed consent means that participants have adequate information regarding the research; are capable of comprehending the information; and have the power of free choice, enabling them to consent voluntarily to participate in the research or decline participation (Polit, Hungler, & Beck, 2001, p. 78). Before giving consent, information about the study was explained verbally to the participants, and a copy of the Participant Information and the Consent Form was provided to them (Appendices 1 & 2). They were encouraged to ask questions, and have their questions answered to their satisfaction. Additional verbal explanations were given as most had difficulty reading. Furthermore, as some participants and their families had previous experience of their signatures being misused or forged for illegal purposes, the researcher took particular care to ensure that participants understood the content of, and reason for signing, the consent form. They were also assured that their signature would not be used for any other business, apart from documentation of their willingness to participate in the study. In the event, all participants signed a consent form indicating their voluntary consent to take part in the study. This consent indicated whether or not the participants were willing to be interviewed about their chronic pain self-management, to have audio-recording during the interviews, and to have the researcher observe participants' self-management in a mutually convenient setting.

4.3.2 Withdrawal

The researcher explained to participants that they were free to withdraw from the project at any time. Withdrawal was not detrimental to them in any way. It did not affect their relationship with health care staff or their caregivers or their social status in their village. No explanation was required if participants chose to withdraw from the study. This information about their right to withdraw with no detrimental affect was also included in the Participant Information and the Consent Form. One participant, who had completed the demographic questionnaire, was withdrawn from the study because he died (unrelated to study participation) before undertaking an in-depth interview.

4.3.3 Privacy, confidentiality and anonymity

Conducting an interview in a private room inside a house was unusual for the villagers; therefore, most interviews were undertaken at outside day-beds located close to their homes[30] where the participants felt more comfortable to take part. Audio recordings and written notes were taken only if the researcher obtained permission from participants to do so. Four interviewees were reluctant to answer when the researcher asked if they were willing to have the interview audio recorded; therefore, interviews with these participants were not recorded. In these cases, short notes were taken during the interviews and field notes were written immediately after the completion of the interviews. The other 28 participants gave permission to audio record their interviews. They could request to take breaks during the interview, and ask the researcher to stop the interview at any time. The researcher also asked them at times during the interview if they would like to do this, because asking guests to stop talking to them, as in taking an interval, is considered impolite in the Thai context. No participant chose to take a break during the interviews.

Observations were carried out with the participants' permission and at their convenience. Notes were taken during observations only when the researcher had obtained permission from the participants. They could request the researcher to stop the observations at any time. The researcher observed several sessions of pain management, including whilst participants prepared or received traditional treatments and when they visited Western-oriented practitioners in different settings.[31] No participant requested the researcher to stop the observations.

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[30] North-east Thai Villagers commonly have day-beds placed in open areas beneath their homes, under isolated shelters or under large trees close to their homes. They use day-beds for staying outside their houses during the day (Barrow, 2002).

[31] See Section 4.8.1 'Procedures for data collection,' for more information.

All data obtained in connection with the study that could identify participants remained confidential. Data that arose from the study were provided in such a way that participants and the villages could not be identified in any publication or presentation. Participants and the villages were given pseudonyms and were referred to only by these names in the thesis, other publications, and presentations.

4.3.4 Minimising the risk of harm

There was no physical or social risk to participants. It was unlikely that the participants would experience discomfort as a result of involvement in the study. In the unlikely event that this did occur, the researcher, as an experienced nurse and a Thai national who was mindful of the cultural sensitivities in north-east Thailand, would offer emotional support to the participants in the first instance. The researcher would also offer an opportunity to participants to decide whether to continue to take part in the study. In the event that any participant was still experiencing discomfort, and would like additional assistance, he/she would be referred to clinical staff at the closest public health centre or district hospital, with his/her approval. No participant experienced discomfort as a result of involvement in the study.

4.3.5 Compromising the role of the researcher

During the fieldwork in any research, a situation that places the investigator in the position of being seen as a researcher and a health provider may occur. In this study, while the researcher was present in the villages during the recruitment process and data collection, she introduced herself as a nurse researcher and lecturer from a Thai university who was studying at an Australian university. On some occasions, the student researcher’s qualification as a nurse created difficulties for her research role. First, some potential and actual participants asked if the researcher could offer them effective pain treatments and other support regarding pain relief. The researcher explained to them that she came to the villages to conduct the study and did not bring any kind of pain treatment. Second, while conducting the interviews, some asked questions regarding the medications they received from the health centre, clinic, or hospital, or some over-the-counter medications. The researcher provided information about the medication without any discussion of its effectiveness. For example, when a participant showed a package of Indomethacin[32] and asked the researcher what kind of medication it was, the researcher explained to him that it was an anti-inflammatory medication for reducing pain and inflammation and did not mention in detail whether it was an effective pain medication or not.

4.3.6 Data storage, access and disposal

During the project, data were stored in a locked filing cabinet in Professor Terence McCann's office in the School of Nursing and Midwifery, Victoria University. Only Professor McCann, Associate Professor Mary Carolan, and Ms. Ladawan Panpanit had access to the data. Electronic data files were stored on Professor McCann's and Ms Panpanit's computers, protected by a password known only to these investigators, who had joint responsibility for the security of the data. At the completion of the study, the hard copies and electronic copies of the data, and the audio recordings, were stored securely in the School of Nursing and Midwifery, Victoria University, and will be destroyed after five years.

4.4 OVERVIEW OF VILLAGES

4.4.1 Village A

Village A was located 10 kilometres from its district capital, 40 kilometres from the Roi-Et provincial capital, and 480 kilometres from Bangkok (Figure 4.1). There were 200 households with a population of 998 people in the village. The sub-district population was 4,338 with a population density of 239.42 people per square kilometre. There was one health centre in the sub-district located in the study village with three health centre staff. The proportion of health personnel per population was 1:1,446. (Chaturaphukpiman Police Station, 2011).

Other demographic data were provided about the whole province rather than in a particular village, sub-district, or district. In 2004, there were 21 hospitals in Roi-Et Province with a total of 1,412 beds, including 18 public hospitals with a total of 1,152

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[32] Indomethacin is a non-steroidal anti-inflammatory medicine used commonly in active rheumatoid arthritis; osteoarthritis; gout; degenerative hip joint disease; low back pain; postorthopaedic procedures; primary dysmenorrhoea; acute musculoskeletal disorders, such as bursitis, tendonitis, and synovitis (Skidmore-Roth, 2010).

beds and three private hospitals with a total of 260 beds. There were 253 private clinics in the province in 2010 (Department of Health Service Support, 2010). In 2004, population per physician, pharmacist, and nurse was 10,079; 14,398; and 1,191 respectively (Ministry of Public Health Thailand, 2007b). The number of elderly people in the province aged 60 years or over in 2000 was 113,209, accounting for 9% of the total population (United Nations Economic and Social Commission for Asia and the Pacific, 2005c), and increased to 11.1% in 2009 (Bureau of Policy and Strategy, 2010).

Most people in the province are Buddhist (99.4%). The average number of completed years of formal education, in the population aged 15 years and over, was 6.4 years in 2000 (United Nations Economic and Social Commission for Asia and the Pacific, 2005c). Agriculture is the main occupation (84.6%) (United Nations Economic and Social Commission for Asia and the Pacific, 2005c), with per capita gross provincial product (GPP)[33] of 23,319 and 41,091 Thai baht[34] in 2002 and 2009 respectively (Office of the National Economic and Social Development Board, 2011).

4.4.2 Village B

Village B was 10 kilometres from its district capital, 45 kilometres from the Maha Sarakham provincial capital, and 450 kilometres from Bangkok (Figure 4.1). The sub-district population was 14,152 with a population density of 240.39 people per square kilometre. There was one health centre in the sub-district located in the study village (Nongsang Tambon Administrative Organisation, 2010).

Information about broader health resources, socio-economic data and other demographic data was provided for the entire province. In 2004, there were 12 hospitals in the province with a total of 1,076 beds, including 11 public hospitals with a total of 1,026 beds, and one private hospital with 50 beds. There were 156 private clinics in the province in 2010 (Department of Health Service Support, 2010). In 2004, the number of population per physician, pharmacist, and nurse was 9,947; 11,688; and 1,211 respectively (Ministry of Public Health Thailand, 2007b). The proportion of elderly in the province in 2000 was 8.5%, or 80,239 (United Nations Economic and

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[33] Per capita gross provincial product is an average value of annual product per population in each province.

[34] On 30 June 2011, approximately 33 baht were equal to one Australian Dollar (Bank of Thailand, 2011).

Social Commission for Asia and the Pacific, 2005b) and this increased to 11.1% in 2009 (Bureau of Policy and Strategy, 2010; Provincial Health Information System, 2008b).

Almost all people are Buddhist (99.8%). The average years of completed formal education among the province's population aged 15 years and over was 6.5 years in 2000 (United Nations Economic and Social Commission for Asia and the Pacific, 2005b). Agriculture is the main occupation (84.1%) (United Nations Economic and Social Commission for Asia and the Pacific, 2005b), with product per capita of 21,609 and 39,178 Thai baht in 2002 and 2009 respectively (Office of the National Economic and Social Development Board, 2011).

4.4.3 Village C

Village C was situated in Khon Kaen province (Figure 4.1), four kilometres from its district capital,[35] 80 kilometres from the provincial capital, and 400 kilometres from Bangkok. In 2007, the village population was 1,164 living in 327 households. There were 398 male and 495 female elderly people in the sub-district, accounting for 12.8% of total population. Population density of this sub-district was 174 people per square kilometre. One health centre was responsible for providing services to 6,991 people in the whole sub-district. In other words, the proportion of health personnel per population was 1:1748 (Peg Yai Tambon administrative organization, 2007).

In 2004, there were 31 hospitals in the province with a total of 3,571 beds,[36] including 28 public hospitals with a total of 3,350 beds and three private hospitals with a total of 221 beds. There were 461 private clinics in the province in 2010 (Department of Health Service Support, 2010). In 2004, the number of population per physician, dentist, pharmacist, and nurse was 3,666; 9,570; 8,496; and 650 respectively (Ministry of Public Health Thailand, 2007b). The number of elderly in the province aged 60 years or over in 2000 was 150,873, accounting for 8.7% of the total population (United

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[35] The distance from the villages to the district capitals might not seem to be particularly long; however, in addition to decreased mobility and limited access to transport, elderly people in the village found it difficult to access many public services. See Section 4.6 'Overview of the participants' Chapter Four 'Methods to data collection,' for more information.

[36] This province is a major city in the north-east Region (United Nations Educational Scientific and Cultural Organization (UNESCO) Bangkok Office, 2009). There are medical, nursing and other health related schools in this city.

Nations Economic and Social Commission for Asia and the Pacific, 2005a), increasing to 11.3% in 2009 (Bureau of Policy and Strategy, 2010; Provincial Health Information System, 2008a).

Almost the entire population (99.4%) is Buddhism. The average years of completed formal education among the population aged 15 years and over was 6.9 years in 2000 (United Nations Economic and Social Commission for Asia and the Pacific, 2005a). Most people (69.6%) obtained their main income from agriculture (United Nations Economic and Social Commission for Asia and the Pacific, 2005a), with product per capita of 41,266 and 76,385 Thai baht in 2002 and 2009 respectively (Office of the National Economic and Social Development Board, 2011).

4.5 SELECTION AND RECRUITMENT OF PARTICIPANTS

The recruitment process for the elderly people was as follows:

1. Brief information about the study was provided to potential participants by public health care centre staff, village health volunteers, the formal leader of each village, or informal village leaders.[37]

2. Contact details of prospective participants, who expressed interest in taking part in the study, were forwarded to the researcher.

3. Potential participants could also directly contact the researcher who was present in the villages, especially at the temples where most elderly people gathered daily.

4. The researcher then gave a detailed explanation about the study to all potential participants. They could also ask questions and have them answered to their satisfaction. They were assured that participation was voluntary, and that they had as much time as they needed to consider taking part in the study.

5. Prior to giving consent to participate in the study, potential participants who continued to express interest in taking part in the study were given a copy of the Thai version of the Participant Information and the Consent Form (Appendices 1 & 2), outlining the purpose, procedure, confidentiality and significance of the study. For those who could not read, the researcher provided a detailed verbal explanation about

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[37] See Section 4.2.2 ‘Entering the field,’ for more information.

the Participant Information and the Consent Form, prior to obtaining consent regarding involvement in the study. Potential participants could also ask questions throughout the study.

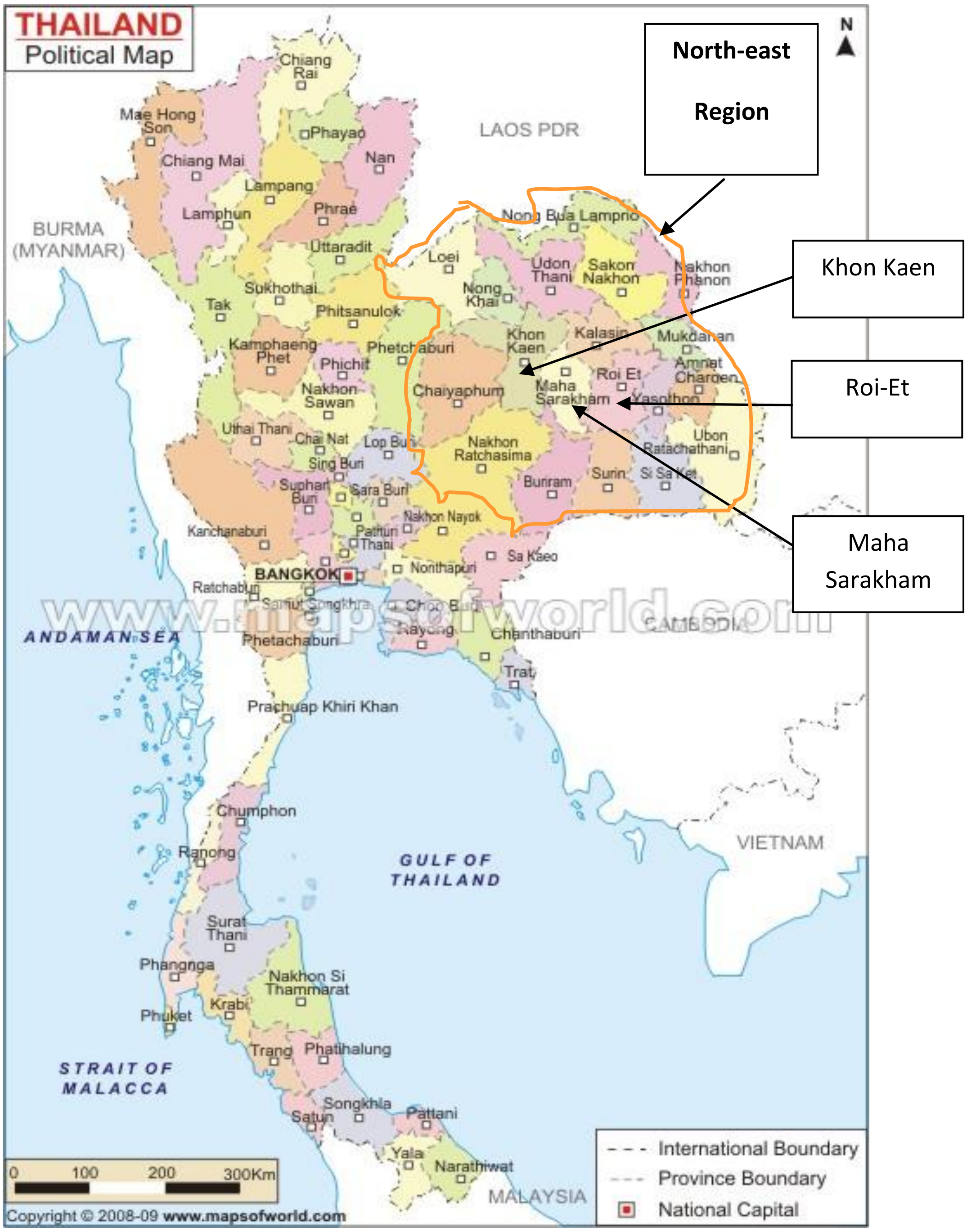

Figure 4.1 Map of Thailand (Maps of world, 2010)

Inclusion criteria

- Male or female Thai elderly, aged 60 years or over;
- Experiencing chronic pain for at least 6 months;
- Living in the selected villages; and
- Able to communicate in conversational Thai or north-east Thai dialect.

Exclusion criteria

- Confusion,
- Any acute and serious illness, or
- Experiencing acute pain at the time of the study.

4.6 OVERVIEW OF THE PARTICIPANTS

4.6.1 Socio-demographic data

Socio-demographic data for the elderly participants is presented in Table 4.1. Thirty-two participants (six males and 26 females) took part in the study. The mean age of interviewees was 72.2 years old, ranging from 60 to 87 years old. All were Buddhist and almost half were widows. All had completed a primary level of education or lower. Nineteen gave information in relation to body weight and height. The information indicated that most had normal weight, compared with a survey in 2006 which found that the proportion of Thai older people who were underweight, normal weight, and overweight were 13.9%, 60.4%, and 25.6%, respectively (Ageing Thai Organization, 2006).

All belonged to a health scheme, with most covered by the Universal Coverage Health Scheme. Twenty-five had their daughters as primary caregivers, while twelve had their spouses taking care of them. Other caregivers were sons-in-law or daughters-in-law, grandchildren, sisters or brothers, and neighbours who took care of eight, seven, five, and two participants, respectively. Four stated that they took care of themselves as the response to question about their main caregiver (Table 4.1).

The participants' socio-economic data are displayed in Table 4.2. Twelve were still working during the period of the study and four were working casually, such as doing hired labour jobs when they wanted to and were able to work. Half received 500 baht monthly payment from the government, including 'Bia Young Cheep'[38] for 15 participants, and payment for disabled people for one participant.

Table 4.1 Socio-demographic data for the elderly participants (N=32)

Gender	Male	Female		
	6	26		
Age (years)	Minimum	Maximum	Mean	
	60	87	72.19	
Religion	Buddhism			
	32			
Marital status	Married	Single	Widow	
	13	4	15	
Education	No formal education	Primary school		
	2	30		
Nutritional status (Body mass index)	Underweight	Normal weight	Overweight	No information obtained
	(BMI < 18.5)	(BMI> 18.5 <29.9)	(BMI=25–29.9)	
	3	11	5	13
Health insurance	Civil Servant Medical Benefit Scheme	Universal Coverage Health Scheme	Health Volunteer Health Scheme	
	9	22	1	
Primary caregivers	Daughters	Sons	Spouses	Self-care
	25	19	12	4

Most received financial support from their children. Other sources of income included agricultural work, hired labour work and a grocery shop business in the village. Their monthly income ranged from no income to 4,500 baht with most receiving 500 baht per month. Twelve received an income from the government only, whereas six earned no income and had no income from the government. Two lived alone, and the number of participants' family members ranged from one to eight people with an average of 4.2, which was slightly larger than the average of the region (3.7 in 2009) and the whole country (3.3 in 2005) (National Commission on the Elderly, 2007). Twenty-one gave information with regard to family income, which ranged from 600 to 30,000 baht per month, with an average of 6,219 baht.

The participants travelled to other places, especially to seek services for chronic pain, in their own vehicles, their children's vehicles or rented vehicles. Some had pick-up trucks or a passenger car in their family, or had children (who lived in other places)

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[38] 'Bia Young cheep' is a Thai word, referring to a monthly allowance that the Thai government provides for Thai elderly people who do not receive any other government financial support.

owning pick-up trucks or cars (Table 4.2). Almost half had motorcycles in their families; most could ride on these as a passenger, to travel around their villages, but six could not ride them at all. One was provided with a wheelchair by the government and used it to travel to the closest health centre, with the assistance of her husband.

Table 4.2 Socio-economic data for elderly participants (N=32) (Raw data)

Work	Full-time	Casual	No paid work	
	8	4	20	
Occupation	Agriculture	No paid work		
	12	20		
Government financial support	Yes	No		
	16	16		
Sources of income apart from government support	From children	Agriculture work	Labour work	Grocery shop
	30	12	3	1
Elderly income	Minimum	Maximum	Mean	
(Thai baht)	0	4500	564	
Household size	Minimum	Maximum	Mean	
	1	8	4.2	
Family income	Minimum	Maximum	Mean	
(Thai baht)	600	30,000[39]	6219	
Vehicles owned by family or children living nearby	Pick-up trucks	Cars	Motorcycles	Motor-tricycles
	12	1	15	2

4.6.2 Self-reported chronic health problems

Twenty four participants suffered chronic illness and the most common chronic health problems reported were hypertension and diabetes mellitus. Types of illnesses and numbers of participants who suffered from the illness are presented in Table 4.3.

4.6.3 Nature of pain

All participants had local pain and the pain scores ranged from 1–10, with an average of 6.3.[40] Leg and lumbar were the most common locations of pain, whereas ‘stiffness’ and ‘numbness’ were used by majority of the participants to describe their pain.

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[39] Only one participant’s family had an income of 30,000 baht. The second highest family income was 17,500 baht per month.

[40] All elderly participants were asked to rate their pain intensity from 0 (representing no pain at all) to 10 (indicating the worst pain imaginable), based on the Numeric Rating Scale (NRS) (Flaherty, 2008).

Location of pain, pain characteristics and number of participants who had pain in that part are presented in Tables 4.4 and 4.5.

Table 4.3 Types of chronic illness

Types of chronic Illness[1]	Number (N=32)
Hypertension	7
Diabetes mellitus	6
Eye problems	5
Heart disease	4
Dizziness	4
Peptic ulcer	3
Thyroid disease	3
Hearing problems	2
Renal calculi	2
Other illnesses	5

Legend: [1]Some participants suffered more than one type of chronic illness

Table 4.4 Location of pain

Location of pain[1]	Number (N=32)
Leg	21
Lumbar	20
Knee joint	16
Lumbar to leg	15
Foot	10
Hip	5
Back	4
Abdomen	3
Neck and shoulder	2
Many joints	2
Ankle	2
Other parts	5

Legend: [1]Some participants had more than one pain location

4.6.4 Utilisation of health care services

4.6.4.1 Health care settings

Most participants sought services from health personnel but four did not receive any pain treatment from these personnel. Most visited health personnel in public and private settings. Fifteen sought care from health centres, 19 visited public hospitals and 20 consulted private hospitals or clinics. The number of private health care settings visited by each participant ranged from one to ten. Six received care from one private setting and seven went to two settings, whereas four visited eight or more private settings for their pain. Four claimed that they visited all the private clinics in the province where they lived and the provinces nearby. The source of health care services that the participants accessed for their pain is presented in Table 4.6.

Table 4.5 Pain characteristics

Pain characteristics[1]	Number (N=32)
Stiffness	21
Numbness	14
Cramping	7
Throbbing	5
Aching	5
Splitting	5
Hot-burning	4
Tiring or exhausting	4
Cold	4
Sharp	3
Gnawing	3
Sickening	3
Heavy	2
Referred	2
Shooting	1
Abdominal distension	1

Legend: [1]Some participants described their pain as having more than one characteristic

Table 4.6 Types of health care settings accessed

Health care settings	Numbers (N= 32)
Public settings	
health centre only	1
public hospital and health centre	2
public hospital only	3
Private settings	
private hospital/clinic only	5
Combined	
public and private clinic/hospital	17
None	4

4.6.4.2 Pain relief treatment received from health care settings

The most popular treatment received from the health care providers was pharmacological treatment, especially analgesics, with 26 participants receiving analgesics for their pain. The kinds of treatment they received are shown in Table 4.7.

Table 4.7 Pain relief treatment given to participants by health care staff

Treatment[1]	**Numbers (N= 32)**
Pharmacological treatments	
Analgesic	26
Joint injection	4
Antacid	3
Non-pharmacological treatments	
Advice about an operation	5
Advice on exercise	2
Physiotherapy	1
Hot compress	1
Advice on posture	1
Advice to take a rest	1

Legend: [1]Some participants received more than one kind of treatment

4.6.4.3 Effectiveness of pain treatments

After receiving treatment from health care providers, eight participants reported no improvement at all whereas twelve indicated some degree of pain relief but the pain returned after the effect of the painkillers diminished. One reported no improvement after going to the public hospital but achieved pain relief for 50% of its severity after seeing a doctor at a private clinic. Another felt that his pain improved considerably following his first visit to a private clinic, then the effectiveness of treatment decreased and necessitated that he visited different clinics frequently.

4.7 ASSUMPTIONS AND EXPECTATIONS

Reflexivity, which is the process by which researchers carefully examine their influence on the data (Wolf, 2007) during data collection and analysis, is pivotal in qualitative research (Corbin & Strauss, 2008). There is criticism that the interpretation of qualitative research can be affected by the researcher's position and background (Koch & Harrington, 1998). There are four steps the researcher can take to overcome this criticism. First is explicitness in relation to the theoretical perspective. Second is examination of the researcher's preconceived assumptions and expectations in order to minimise the introduction of bias into the study. Third is reflection throughout the process of the study. The last is an explanation of and reflection on the methods used in the study and the context in which the study is being carried out (McCann, 1999).

In the first level of reflexivity in the present study, the researcher stated explicitly that grounded theory was being used as the methodological approach. In the second level of reflexivity, when the researcher commenced the study, she was aware that the elderly people living in villages had several resources for self-managing their chronic pain. These included local wisdom among people living in rural communities about the management of chronic pain as well as attempts by family members to seek information and resources for providing management of chronic pain for their elderly as much as they could.

In relation to the third level of reflexivity, the researcher's assumptions and expectations were influenced by her professional experience as a university lecturer and a nurse. The researcher was employed at the Department of Gerontological Nursing, Khon Kaen University; therefore her teaching, research, and provision of health education to the community were related to the care of elderly people. She had supervised nursing students' clinical placement in medical wards and was also a registered nurse in medical wards at a university hospital before becoming a lecturer. These wards had many elderly patients from rural communities. Some patients had illnesses that caused chronic pain; others were admitted because of improper management of their pain. The researcher had an interest in Buddhism because it was her religion. All participants in the study were Buddhist and managed their pain according to these principles. The researcher was born, grew up, worked, and lived in the rural north-east region of Thailand and thus had a compelling interest in undertaking the study in relation to health in this region. She was also mindful that the quantitative research project for her Master's degree, conducted in a rural community in north-east Thailand, inspired her to conduct her PhD research in a similar setting. For the final level of reflexivity, several methods of reflection were used: in particular, taking field notes, having discussions with supervisors, and presenting the findings to peers and other scholars at postgraduate forums of the School of Nursing and Midwifery and the Faculty of Health, Engineering and Science at Victoria University (Appendix 11), and at other conferences outside the university setting.

Similar to other qualitative research, the grounded theory method necessitates interpersonal interaction. In this method, the researcher was an integral part of the data. Recruitment of participants, data collection using interviews and observations, and data analysis involved interpersonal interaction. Interpersonal interaction between the researcher and the participants in the data collection and analysis processes in the study led to a reciprocal influence. Therefore, it would be difficult to maintain objective knowledge of reality without any influence from the researcher's experiences, assumptions, values, expectations and priorities (McCann, 1999; Strauss & Corbin, 1998).

4.8 DATA COLLECTION METHODS

Triangulation, coined by Denzin in 1970, refers to the combination of multiple methods in a study (Denzin & Lincoln, 2005; Flick, 2007b). It has been used in many qualitative research studies, even before this term was created (Flick, 2007b). Four forms of triangulation have been conceptualised: (1) data triangulation, the use of different data sources; for example, to study an issue at different times, in varying locations, or with individuals, groups, and communities; (2) investigator triangulation, the use of different researchers to collect and analyse the same data to minimise potential biases arising from a single researcher; (3) theoretical triangulation, the use of different perspectives and assumptions to approach the data; (4) triangulation of methods, including within-method triangulation, such as having different subscales in questionnaires on the same aspect, and between-methods triangulation, the combination of using different methods to study the phenomenon and the modification of methods during the study.

Triangulation is a tool to enable the qualitative researcher to secure an in-depth understanding of data. It is an alternative strategy for validating data and ensuring the quality of research, and contributes to the rigour, breadth, complexity, richness and depth of the study (Denzin & Lincoln, 2005).

In the present study, data triangulation was achieved with participants being recruited from three villages in three distinct provinces. In addition, method triangulation was used. Three main methods of data collection were used to generate information about self-management of chronic pain: interviews, observations, and questionnaires.

4.8.1 Interviews

In-depth interviews are the most common data collection method used in qualitative research. They have been referred to as 'conversations with a purpose' (Holloway &

Wheeler, 2010). Interviews are powerful approaches to obtaining knowledge of the human situation, which influence the ways of understanding situations and managing human actions. Examples of historical studies using qualitative interviews as a key method include Freud's psychoanalytic theory, Piaget's theory of child development, and experiments at the Hawthorne Chicago plant of the Western Electrical Company (Flick, 2007a). Qualitative interviewing is a key method for exploring the ways in which participants experience situations. They enable the researchers to understand the participants' lived world by providing a unique access to their activities, experiences and opinions (Flick, 2007a).

Stages of interviews

There are no standard procedures or rules for conducting a research interview. However, Flick (2007a) suggested seven stages of an interview inquiry: (1) thematising, includes answers to the questions why, to clarify the purpose of the study, what, to gain knowledge about the participants to be interviewed, and how, to choose proper techniques for interviews; (2) designing, to plan the procedures and techniques of the interview; (3) interviewing, to conduct the interview based on an interview guide; (4) transcribing, to transcribe oral speech into written text; (5) analysing, to analyse data based on the purpose and the topic of the study; (6) verifying, to examine the results in relation to the rigour of the study findings; and (7) reporting, to present the findings to readers.

Types, forms, and questions for interviews

Interviews range from unstructured to structured (Holloway & Wheeler, 2002, 2010). A structured interview refers to a situation in which an interviewer asks each interviewee a series of set questions with a limited set of answer categories (Fontana & Frey, 1994; Robinson, 2000). An unstructured interview provides opportunities for a greater range of responses from interviewees (Speziale & Carpenter, 2003). Unstructured, non-standardised interviews and semi-structured interviews are commonly used in qualitative research (Flick, 2007a; Holloway & Wheeler, 2002, 2010).

Flick (2007a) suggested a variety of interview forms, including factual, conceptual, focus group, narrative, discursive, and confrontational interviews. However, no ideal form exists for interviewing. The appropriate form depends on the topic and the purpose of the interview, the interviewee, and the methodological approach to seeking knowledge (Flick, 2007a). Flick (2007a) suggested several main types of interview questions: introductory, follow-up, probing, specifying, direct, indirect, structuring, and interpreting questions as well as the use of silence.

Interviews in qualitative research and grounded theory

The formal qualitative interview refers to "an unstructured conversation with a purpose that usually features audio taped and verbatim transcription of data and the use of an interview guide rather than a rigid schedule of questions" (Robinson, 2000, p. 18). Qualitative interviewing provides an open-ended, in-depth exploration, and considerable insight into aspects of the participants' lives. In this study, the interviews began with open-ended questions and were then followed by in-depth exploration. Questions were broad enough to cover a wide range of participants' experiences and also narrow enough to obtain the specific experiences of each participant. As the interviews proceeded, the range of interview topics was narrowed to gather specific data in order to develop the theoretical framework (Charmaz, 2006). Flexibility in qualitative interviews allowed the researcher to elicit more information and clarify promptly the meanings of participants' words or phrases, and enabled participants to explore their own thoughts, ideas or feelings (Holloway & Wheeler, 2002, 2010). Suggestions for conducting interviews in grounded theory are as follows:

- Questions should be guided towards the research topic but should be as non-directive as possible (Holloway & Wheeler, 2002, 2010).
- Questions should explore the researcher's topic and fit the participants' experiences (Charmaz, 2006).
- Questions should be clear and understandable, and not ambiguous (Flick, 2007a; Holloway & Wheeler, 2002, 2010).
- Double questions, asking two questions at the same time (e.g. how do you manage your pain, and what do you think about this pain form of relief?), should be avoided (Holloway & Wheeler, 2002, 2010).
- Interviews should give higher priority to participants' comfort level rather than the richness of data (Charmaz, 2006).

- The researcher should pay close attention as to when to explore data further (Charmaz, 2006).
- The researcher should attempt to understand experiences from an insider's (emic) view (Charmaz, 2006).
- The interview should bring participants back to their normal conversational level before ending. It should not end when the participant is distressed from the interview (Charmaz, 2006).
- Transcribed, audio recorded interviews can help researchers see how their questions work (Charmaz, 2006; Speziale & Carpenter, 2003).
- Researchers should pay attention to participants' language, meanings and lives, and should not make assumptions about what they mean (Charmaz, 2006).

Relationships between the interviewer and interviewee can influence the interview process and data. Wenger (2003) suggested some specific considerations when interviewing elderly people, such as communication difficulties as a result of sensory impairments. Differences between words and actions are also possible. Observation is one form of within-method triangulation to address this problem (Holloway & Wheeler, 2002, 2010).

The interviews in the present study were semi-structured, using an aide-memoire (Appendix 4) to guide the interviews. Individual in-depth and audio recorded interviews were conducted with the elderly participants, in a mutually convenient setting. For some participants, more than one interview was carried out in order to explore issues further. Field notes and theoretical memos were written shortly after each interview.

4.8.2 Observations

Observation is a fundamental approach for research studies in the social and behavioural sciences (Adler & Adler, 1994). Angrosino (2005) pointed out that in the past, a focus of observation was as a method to study a situation with a general assumption that the naturalistic observer should not interfere with the field under observation. With this assumption, the development of standardised procedures for observation is possible and desirable, and the procedures can maximise efficacy of observation, minimise observer bias, and allow investigation into how much the procedures help produce valid and reliable data. Agreement between participants and observers regarding the situation is considered as true objective findings. Observation should be concentrated as a context for interaction among people in the study field (Angrosino, 2005). An emphasis on objectivity, validation and replicability is now just one part of social research (Angrosino, 2007).

Types of observations

Gold (1958) conceived four types of observation typologies. First is the complete participant, where, for instance, the observer is involved in covert observation and takes an insider role in the study field. Data obtained from complete participant observations are highly subjective and scientifically questionable (Angrosino, 2005). It is not recommended that health researchers undertake this type of observation in close settings because of ethical issues, especially for inexperienced researchers (Holloway & Wheeler, 2002, 2010). Second is the participant as observer, where the observer is part of the group under study. Data obtained from this type of observation are subjective to some degree but still not scientifically acceptable (Angrosino, 2005). Third is the observer as participant, where the observer is in the study setting and has little involvement in the study field. Finally, there is the complete observer, where the observer does not participate in the study field and has no impact on the situation, such as observation through a mirror or video camera. Within this classification, the researcher’s role in the present study is the observer as participant.

Spradley (1980) identified five types of observation: nonparticipation, where the observer is not involved in the study field; passive participation, where the observer takes some involvement in the study field in a passive way; moderate participation, where the observer has moderate participation in the study field; active participation, where the observer takes a more active role in the study field; and complete participation, where the researcher has an insider’s role in the study field. In the present study, the Spradley type of observation that the researcher used was passive participation.

Adler and Adler (1994) suggested three types of observation: (1) peripheral member researcher, the observer does not participate in activities of the members of the study field; (2) active member researcher, the observer is involved in the central activities of the study community, but is not fully committed to the values and goals of the community; and (3) complete member researcher, the observer is a member of the study setting, which means he/she may already be a member or become a member during the course of the study (Adler & Adler, 1994). In this present study, the researcher was a peripheral member researcher.

Similar to Adler and Adler's classification, Angrosino (2005) also classified observation into three types: participant observation, the researcher is involved in the everyday life of the study community for the long-term; reactive observation, the participants are aware of being observed and interact with the researcher in activities that related to the research participation only; and unobtrusive (nonreactive) observation, the participants are unaware of being observed. In this present study, the researcher performed a reactive observation.

Observation levels in qualitative research

Angrosino (2005) suggested three levels of observation in qualitative research: descriptive observation, observing all detail; focused observation, looking for relevant issues, focusing on well defined categories; and selective observation, concentrating on specific categories. In the present study, the researcher commenced observation with broader aspects and then focused progressively on more specific issues through the three levels of observation.

In relation to categories to be observed, Lofland (1971) suggested that qualitative field research observation should focus on several issues, including acts and activities, meanings, participation, relationships, and settings (Polgar & Thomas, 2008). Similarly, Spradley (1980, p. 78) provided a framework for guiding observation as follows:

> Space: the physical place or places
> Actor: the people involved
> Activity: a set of related acts people do
> Object: the physical things that are present
> Act: a single action that people do
> Event: a set of related activities that people carry out
> Time: the sequencing that takes place over time
> Goal: the things people are trying to accomplish

Feeling: the emotion felt and expressed

Observations in the present study[41] were carried out by the researcher at the time of the home visit to elderly participants, with their permission and at their convenience. The researcher as "observer as participant," visited participants' residences and was marginally involved in their situation (Holloway & Wheeler, 2002, 2010). The researcher observed self-management of chronic pain in the participants' residences, where these practices took place, with minimal involvement. The involvement included asking selective questions to obtain more details about pain treatment being observed; for example, names of herbs used to prepare a homemade hot compress. Field notes were taken discreetly during the observations or at a convenient time thereafter.

4.8.3 Questionnaires

A socio-demographic questionnaire developed by the researcher was used to collect demographic data (Appendix 3). The questionnaire comprised 35 questions about the background of the participants, such as age, gender, education, occupation, illness, and use of health care services; and chronic pain data such as location, severity, and duration, together with management strategies and their effectiveness. All elderly participants indicated that they were more comfortable receiving assistance to complete the questionnaires rather than doing so independently. This entailed the researcher asking them questions about each item and then writing down their answers. The amount of time to complete each questionnaire ranged from 25 to 40 minutes.

4.9 DATA COLLECTION AND ANALYSIS

4.9.1 Procedures for data collection

Initially, the socio-demographic questionnaire was distributed to participants. The researcher provided assistance to those who were illiterate or required help as mentioned earlier in this chapter.[42] After completing the questionnaire, the participants were then asked to take part in an in-depth interview. Twenty-six gave permission for in-depth interviews at various intervals. In these cases, brief individual interviews were conducted with participants' permission in order to obtain more detail regarding their

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[41] See section 4.9.1 'Procedures for data collection,' for more information.

[42] See Section 4.8.1 'Questionnaires,' for more information.

pain management and to provide a guide for the in-depth interviews. A further six participants expressed that they preferred to take part in an in-depth interview immediately after completing the questionnaire. In these cases, brief interviews were not carried out. Overall, 58 interviews (26 brief interviews and 32 in-depth interviews) were carried out until data saturation[43] was reached. The interview duration ranged from 20 to 70 minutes. Observations were undertaken with participants who were willing to have home visits and be observed in the ways they self-managed their pain. There were eight observation periods in the study, including (i) a participant being given a massage by a traditional therapist; (ii) one being given a massage by her family member; (iii) a participant administrating a hot herbal compress; (iv) a participant preparing her boiled herbal medication; and four observations when they consulted with their health care staff/doctors at (v) a health centre, (vi) a private clinic, (vii) a private hospital, and (viii) a public hospital. The duration of the observations ranged from 15–120 minutes.

4.9.2 Data management

Simultaneous data collection and analysis took place in the study, which is an essential part of grounded theory approach. The early analysis enabled the researcher to identify key points of information to gather more information in the subsequent data collection. For example, the theme ‘maintain life’ was identified from analysis of the first interview (which then was refined to be ‘maintain well-being’ in later analysis) and ‘*using trial and error’* was recognised from analysis of the second interview. These guided the researcher to ask more questions when the later interviewees also reported similar situations in self-management of their chronic pain.

4.9.2.1 Data preparation

Notes taken from the brief individual interviews were attached to the questionnaire for each interviewee. Each of the four in-depth unrecorded interviews were summarised at the end of the interview, and transcribed onto Microsoft Word.

Twenty-eight in-depth interviews were audio-recorded using a MP3 recorder,[44] and then transcribed. Three transcriptions were performed by three north-east Thais who

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[43] No new concepts or properties were derived from data. See Chapter Three ‘Methodology,’ for more information.

[44] MP3 refers to Motion Picture Experts Group (MPEG) 1 layer 3 audio. The files derived from audio-records using an MP3 player are in MPEG format and can be opened in computer programs such as the

studied or worked in the nursing profession. The researcher listened to the audio recordings and read these transcriptions to identify errors and to refine the transcriptions. The remaining interviews were transcribed by the researcher. The Thai transcriptions were then translated into English by the researcher. The translations were verified with assistance from learning support staff at Victoria University and a volunteer English teacher who had taught an English language course for international students. The audio recordings were listened to many times during transcriptions and as the translations were carried out. The transcriptions were also read and reread. Then the coding process was commenced.

4.9.2.2 Data analysis

Questionnaire data were analysed using Predictive Analytics SoftWare (PASW) Version 18. Descriptive statistics were used, including frequency, percentage, minimum, maximum, range, and mean.

Interview and observation data, including memos and field notes, were analysed using constant comparative analysis. Data analysis was undertaken using the cyclical three-step coding process: (1) open coding, raw data were given conceptual labels, (2) axial coding, data were categorised, links were made between categories and subcategories, and (3) selective coding, a core category was identified, and connections were made between the core category and other categories.[45]

Open coding was carried out initially on a printed copy, using coloured markers. Later, Microsoft Word was used for coding, by highlighting with the same colour for data with similar properties (Table 4.8). The coding entailed breaking data apart and labelling it into concepts by their properties and dimensions (Corbin & Strauss, 2008; Strauss & Corbin, 1998).

Axial coding, where conceptual labels were related to each other, was conducted almost simultaneously with open coding. The researcher found that the Microsoft Excel programme provided a more convenient way to place similar sub-groups together, and then produce a broader categorisation.

Windows Media Player (Tilley, 1999). The device provided the researcher with an opportunity to listen to the interviews while travelling to and from the study setting.

[45] See Chapter Three ‘Methodology’ for more information about the cyclical process of coding.

The NVivo qualitative software programme Version 8[46] (Bazeley, 2007; Edhlund, 2007; QSR International, 2009) was used to assist coding and analysing data from this stage after the researcher had attended several training sessions in using this programme. The NVivo programme enabled the researcher to categorise similar free nodes into the same tree nodes. For example, the conceptual labels "*uses trial and error*" were grouped into the category *Seeking Suitable Treatment* together with other conceptual labels (Table 4.9). Seeking Suitable Treatment represents the process that the participants used to identify treatment that was the most suitable for their pain at that particular time and in their contexts. Seeking Suitable Treatment was linked in the same level with Making Sense of Pain, and Integrating Treatment into Everyday Life. In addition, text search query was utilised to test the themes as well as to locate and explore the data that confirmed the findings.

In selective coding, it was found that the three categories were linked with the core category *striving to maintain well-being: adapting to chronic pain*. The NVivo programme was used to confirm frequent occurrence of this theme in the data using the text query command. *Striving to maintain well-being: adapting to chronic pain* was then identified as the core category.

Integration of the theory was carried out using three strategies: category reduction, selective sampling of the literature, and selective sampling of the data (Corbin & Strauss, 2008; McCann & Clark, 2003a; Strauss & Corbin, 1998). At the early stage of analysis, numerous categories and strategies within each category were identified. With ongoing analysis, some categories and strategies were reduced or merged with others. The refinement of each theme was carried out throughout the analysis process. The following exemplars illustrate this process. Four categories were identified: exploring the pain and treatment, experiencing treatment, evaluating treatment and practitioner, and integrating treatment into everyday life. After having more discussion with supervisors and conducting further analysis, it was decided that the three processes of *making sense of pain*, *seeking suitable treatment*, and *integrating*

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[46] NVivo is qualitative data analysis software that helps increase the effectiveness and efficiency of data analysis in five principal ways: managing data, managing ideas, querying data, graphically modelling, and reporting from the data (Bazeley, 2007; Edhlund, 2007; QSR International, 2008a, 2008b, 2009; Richards, 2005, 2009).

treatment into everyday life were more representative of the participants' self-management to their chronic pain.

Table 4.8 Sample of open coding using Microsoft Word

Interviewee ID 10	Age: 67 years	Date: 2 August 2008
Time start: 05.00 PM	Duration 48.04 minutes	Place: Village C
A: interviewer	B: interviewee	

Note: the interviewer made light conversation before turning to the point of pain and the interviewee told her that she had visited the doctor over a long period of time.

[…] = words that might be part of a sentence but the interviewee did not say
(…) = meaning of the prior word

I went to see all the doctors already. I want them to find effective medications for me so that I can recover. If I recover, I will be able to be with my children and grandchildren longer, I will sit down in my house, I will do nothing. I went to see every single doctor. [I went to see] all doctors that people say are expert. The transportation fee was 300 baht. They take some balm to massage. Then they gave me massage by their feet. They asked for 200 baht. Total cost including transportation was 500 baht. I did not recover. [The doctor] in Pa Teaw district was very far from here, I also went there. That cost of 300 baht, I also went to have treatment. People say which treatment is effective, such as the 'snake doctor' on the way to Phanom Stupa in Kalasin province. I went there but I did not recover. People say these places have effective medication. I went there.

Coding

Nature of Pain
Assuming Cause
Adaptation
Effect
Management
Effect of Management
Pain relief goals
Costs
Breaking the Rules

Concern over Dying/ disease Progressing
Unaware/unsure of the cause
Asking questions
Adjusting role
Self Observe/Promote/Care
Being Offered/suggested alternatives
Accepting the Alternative Offers
Refusing alternative offers
Keeping/Following Prescriptions
Considerations for Management

Support
Unavailable Support
Asking/ waiting for support
Concerning Caregivers
Difficulty Managing
Mismatch/mistrust
Unmet Needs
Help others to relieve pain
Managing other symptoms

Table 4.9 Conceptualisation of the category *seeking the most suitable treatment*

- Gathering and responding to information
- Accessing resources
- Using trial and error
- Evaluating treatment
- Evaluating practitioners

4.9.3 Rigour of qualitative study

It is necessary for qualitative researchers to demonstrate the quality of their studies (Holloway & Wheeler, 2010); however, several authors suggested that the criteria of reliability and validity in quantitative research are not suitable for evaluating qualitative studies (Creswell, 2007; Guba & Lincoln, 1989; Holloway & Wheeler, 2010; Lincoln & Guba, 1985). In contrast, Aroni et al. (1999) define rigour in qualitative inquiry as "the means by which we attempt to show integrity and competence” (p. 1), and the term ‘trustworthiness’ is used widely when it refers to the rigour of qualitative study (Holloway & Wheeler, 2010). Several interrelated approaches were used to preserve the trustworthiness of the findings to maintain the rigour of the present study. These included attention to credibility, transferability/fittingness, auditability/ dependability, and conformability, which were respectively taken as substitute criteria for internal validity, generalisation/external validity, consistency/reliability, and objectivity in the quantitative method of inquiry (Miles & Huberman, 1994).

4.9.3.1 Credibility

Credibility in qualitative research is similar to “internal validity” in quantitative research. Credibility refers to “the confidence in the truth of the data” (Polit & Hungler, 1999, p. 427). It involves conducting a study in a manner that enhances the believability of the study findings and following steps to illustrate credibility (Lincoln & Guba, 1985; Polit & Hungler, 1999). A qualitative study is credible when the participants recognise the research findings as their own experiences. It is achieved by verification of data from several methodological strategies, such as triangulation, participant checks, peer debriefing, prolonged involvement, and persistent observation (Holloway & Wheeler, 2002, 2010). In the present study, several procedures were used to enhance credibility.

Prolonged engagement

The researcher remained in each study field for two weeks during recruitment, and repeated her contact with the participants by spending three months in the field to visit them in their homes to conduct in-depth interviews and observations. In addition, the purpose of her prolonged engagement was to build trust with the participants. It was possible for the researcher to achieve the goal of being trustworthy because she was also a native of north-east Thailand and from a rural background. It was noticed that the participants felt comfortable about telling their stories to the researcher.

Intermittent observation

Observations were carried out with participants who were willing to have home visits and be observed in the ways they self-managed their pain. They were observed on more than one occasion to minimise any changes caused by observation.

Peer debriefing

Three university scholars, the Principal Supervisor, Co-Supervisor, and Co-Investigator[47] of the researcher were involved as an external check on the process of the study. These scholars were experienced in qualitative research, especially the grounded theory approach, and were valuable resources to question and confirm the emerging categories and sub-categories. This peer debriefing provided an opportunity for the researcher to verify the findings, because regular meetings were held throughout the study. The researcher was also required to make presentation on the research process regularly at academic forums in the School of Nursing and Midwifery and the Faculty of Health, Engineering and Sciences, Victoria University. These presentations provided valuable appraisal from peers and academic staff in the School and Faculty. In addition, the researcher discussed her study findings with her Thai friends who were also doing qualitative research PhD studies and using similar methodologies and settings. Furthermore, the researcher attended the *8th National Conference of* Emerging Researchers in Aging 2009 (Appendix 9) as well as attending and presenting her work at The International Federation on Ageing 10th Global Conference 2010 (Appendix 10). These conferences provided opportunities for the researcher to engage with attendees and discuss her findings.

Progressive subjectivity

In the present study, ongoing questions and challenging aspects about the study were discussed between the researcher and her supervisors throughout the process of the study. The process of change throughout the study was also documented.

Member check

At the end of each interview session, the researcher summarised the main points of the interview, and asked the participants to verify whether or not the points reflected their

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[47] The Co-Investigator of this study was a Thai scholar who worked at the Department of Gerontological Nursing, Faculty of Nursing, Khon Kaen University.

answers accurately. The participants were also asked to clarify initial interpretations of the researcher throughout the field work process. In addition, they were requested to speak about further related issues that had not been discussed in the interviews.

Triangulation

Triangulation is an alternative strategy for validating data and ensuring the quality of research by showing that data from different independent methods are consistent. Various forms of triangulation were used in the present study. The first was data triangulation, the use of different data sources, from various elderly people who lived in distinct rural community settings; and the conduct of observations at different times. Second, triangulation of methods involved between-methods triangulation, the use of a combination of different methods to collect data, including in-depth interviews, observations, and questionnaires.

4.9.3.2 Transferability or fittingness

In quantitative studies, the “generalisability” or “external validity” of the study is obtained when the findings from the study sample are generalised to a wider population. This occurs when the study is carried out in a systematic way and uses statistical inferences. However, these terms are not applicable to qualitative research. Transferability, also called fittingness, was used instead in this inquiry. A qualitative study is transferable when the findings are meaningful to participants and others in similar contexts. It is the researcher’s responsibility to provide information that helps readers to make a judgement about whether the study findings can be applied to the readers’ own settings of interest (Speziale & Carpenter, 2007). Providing thick description[48] of the study enables the readers to make a judgement about whether the findings can be transferred to other settings or situations.

In the present study, the researcher attempted to provide thick description by describing carefully the study contexts, details of the participants, selection process, settings, time, and methods of data collection and analysis as clearly as possible. This approach helps the readers to make decision about the transferability of the study.

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[48] Thick description describes participants in a cultural and meaningful context, including the meaning, interpretation and also intentions of participants in their circumstances (Holloway, 2008). It can be obtained from data such as interview transcriptions (Charmaz, 2006).

4.9.3.3 Dependability

Dependability, also called auditability, is a similar criterion to “reliability” in quantitative inquiry (Miles & Huberman, 1994). In quantitative research, reliability is defined as consistency, stability, and dependability of measurements. However, it is difficult to explain reliability in qualitative inquiry because it focuses on individual experiences. Qualitative research should be examined by the parameters of naturalistic study and clarity (McCann, 1999). In qualitative study, dependability refers to the stability of findings over time and conditions (Polit & Hungler, 1999). It addresses the issue “whether the process of the study is consistent, reasonably stable over time and across researchers and methods” (Miles & Huberman, 1994, p. 278). Dependability is a criterion used to measure trustworthiness in qualitative inquiry. It is achieved through securing credibility of the findings (Speziale & Carpenter, 2007). Similary, Lincoln and Guba (1985) claimed that dependability is unlikely to be achieved without credibility. Holloway and Wheeler (1996) suggest that documenting or auditing can support dependability.

In the current study, the procedures for data collection and analysis were documented explicitly. All interview transcripts, audio tapes, and field notes have been stored and are available to be accessed for an audit trail. In addition, the approaches to enhance the dependability of qualitative research are similar to those used to address credibility and transferability. The approaches that were used in the present study were reported previously in this chapter.

4.9.3.4 Confirmability

This criterion is similar to “objectivity” in the quantitative research. Confirmability indicates the agreement of people regarding the relevance or meaning of the data (Polit & Hungler, 1999). However, it is extremely difficult or impossible to obtain absolute neutrality and objectivity in qualitative research where the researcher is an integral part of the study (Strauss & Corbin, 1998). Confirmability of the study can be enhanced by making interpretations and conclusions directly from the data (Holloway & Wheeler, 2002, 2010). In qualitative research, audit trail is the main approach to achieving confirmability. An audit trail is a systematic record of activities and thought processes over time throughout the study (Creswell, 2007; Speziale & Carpenter, 2007). Six criteria for auditing include: (a) the raw data, such as interview transcripts; (b) materials in relation to data analysis, in particular theoretical notes; (c) notes regarding the study process, such as methodological notes; (d) resources about intentions and natures of the study, for instance personal notes; (e) information relating to development of study instruments, such as pilot forms; and (f) the formation of the findings, such as drafts of the final report (Polit & Hungler, 1999; Singhakhumfu, 2002).

In the present study, the raw data, including interview transcripts, audio recordings, and field notes were retained. The analysed data and the formation of the findings, including key statements of the participants, codes, categories, and concepts were documented to show that the findings were grounded in the data. In addition, the researcher presented her preconceived assumptions[49] and examined carefully her influences on the data, using a range of strategies. The researcher's reflective responses to situations in the research process were documented and memos were used throughout the study. The use of multiple methods of the study is also explained earlier in this chapter.

4.10 REFLEXIVE ACCOUNT OF USING THE GROUNDED THEORY METHOD

The present study aimed to examine chronic pain self-management used by elderly people. Participants were elderly people living in selected rural communities north-east Thailand who suffered chronic pain for at least six month and could communicate conversational Thai or north-east Thai dialect. Through grounded theory method, differences and similarities were found among these participants. Differences (for example, underlying causes of chronic pain, economic status, support systems, and access to alternatives) were discussed in context of strategies, contextual determinants, and transitional phases of the core process. Prior to the study commence, underlying causes of chronic pain were not considered as inclusion criteria because the study's main purpose was to understand self-management of this symptom in terms of its process, strategies, and individuals sought treatment primarily on a basis of symptoms rather than diagnosis (Ayisi et al., 2011; Kwok & Sullivan, 2007). It was possible that participants had been diagnosed differently about their chronic pain; however, data analysis showed that participants unaware or unsure about causes of chronic pain as

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[49] See Section 4.6 'Assumptions and Expectations' for more information.

described in the core problem *uncertainty about pain self-management*. In addition, few participants had better economic status and access to pain treatment than others; nevertheless, these people expressed differences in their choices of treatment but resemblance in terms of process of self-management. These similarities of chronic pain self-management were evident in all participants. The emerged theory *striving to maintain well-being: adapting to chronic pain* explained this process and its strategies.

4.11 SUMMARY

This qualitative study used grounded theory methodology to investigate how elderly people living in the rural communities in north-east Thailand self-managed their chronic pain. Theoretical sampling was used as the sampling method. Triangulation was used to verify data. Multiple approaches were used to collect data, including interviews, observations, and questionnaires. Data triangulation was derived from elderly participants living in three villages in rural communities. Data collection and analysis were undertaken simultaneously with the aim of enhancing the quality of the study. Strategies to enhance the rigour of the present study were presented. The researcher entered the study field with some prior knowledge and experiences from her clinical and academic experiences in the nursing profession and a preliminary literature review prior to commencing the study. However, careful consideration and awareness of these preconceived ideas, as well as following the flexible strategies for conducting grounded theory throughout the data collection and analysis, were used to enhance the quality of the study.

PART II

CHAPTER FIVE

OVERVIEW OF THE FINDINGS

5.1 INTRODUCTION

The study aims to understand the way that elderly people living in rural communities in north-east Thailand self-manage their chronic pain. The study findings are presented in Chapters Five to Eleven. In this chapter, an overview of the study findings is provided, commencing with a diagrammatic presentation of the overall findings that construct the theory *striving to maintain well-being: adapting to chronic pain*. This is followed by a provision of an overview of the core problem, the core category/process, and the three categories and their resultant strategies. The contextual determinants, which influenced the overall process of chronic pain self-management, are highlighted in the subsequent section. In the final section, an outline of the findings chapters is presented.

5.2 OVERVIEW OF THE THEORY

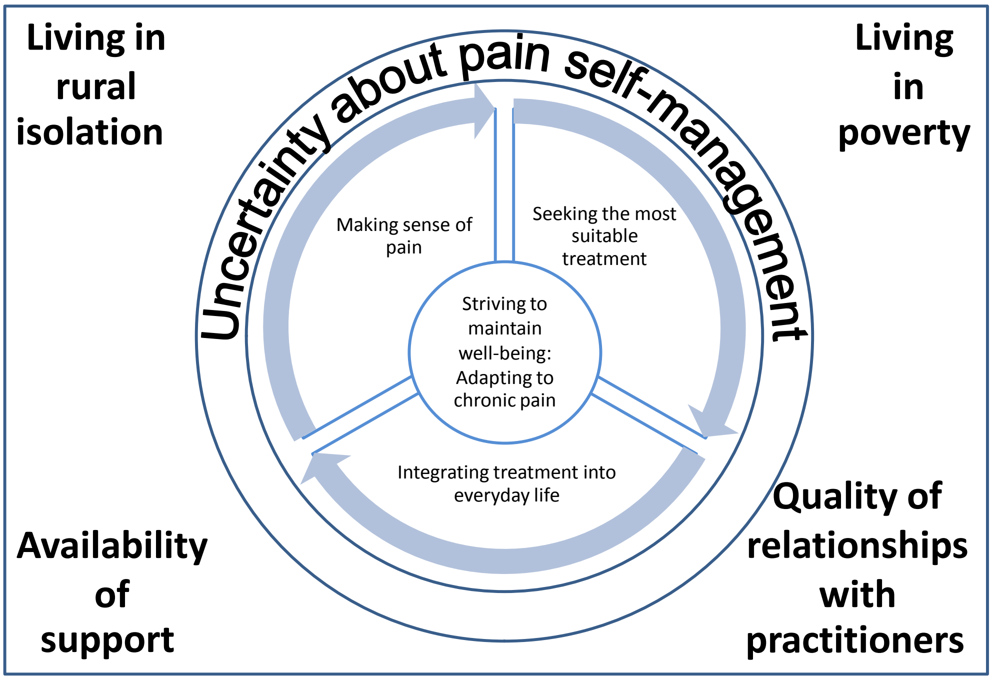

Figure 5.1 The theory *striving to maintain well-being: adapting to chronic pain*

Table 5.1 Detailed outline of the theory

<table>
<tr><td>Core problem</td><td colspan="12">• Uncertainty about pain self-management</td></tr>
<tr><td>Core category</td><td colspan="12">• Striving to maintain well-being: adapting to chronic pain</td></tr>
<tr><td>Categories</td><td colspan="4">• Making sense of pain</td><td colspan="4">• Seeking the most suitable treatment</td><td colspan="4">• Integrating treatment into everyday life</td></tr>
<tr><td>Context of categories</td><td colspan="4">• Pain experiences
• Life philosophy</td><td colspan="4">• Priority given to pain
• Information and resource seeking skills
• Reflective thinking skills
• Access to pain-related information
• Access to pain relief treatment
• Satisfaction with, and preferences for, practitioners and treatments</td><td colspan="4">• Self-care ability</td></tr>
<tr><td>Strategies</td><td colspan="4">• Asking questions
• Making causal assumptions and predicting prognosis
• Identifying pain-related influences</td><td colspan="4">• Gathering and responding to information
• Accessing resources
• Using trial and error
• Evaluating treatment
• Evaluating practitioners</td><td colspan="4">• Incorporating treatment into daily activities
• Minimising adverse effects of treatment
• Maintaining optimal health status</td></tr>
<tr><td>Contextual determinants</td><td colspan="3">• Living in rural isolation</td><td colspan="3">• Living in poverty</td><td colspan="3">• Availability of support</td><td colspan="3">• Quality of relationships with practitioners</td></tr>
</table>

5.2.1 Core problem

The initial analysis in the study placed emphasis on identifying the basic social psychological problem or the core problem (Figure 5.1 and Table 5.1). The core problem had been conceived by elderly people as *uncertainty about pain self-management* while trying to deal with their chronic pain. Three interrelated influences contributing to the problem were low health literacy, Thai cultural influences, and multiple illness belief systems.

Health literacy influenced self-management of chronic pain, but elderly participants indicated that they had low health literacy. Their highest educational level was only primary school, and this led to limited understanding of information from printed health materials. Low health literacy was exacerbated by minimal access to pain-related information from health personnel. To some extent, the Thai cultural tradition of regarding health personnel (especially doctors) as having higher social status than clients made the elderly people reluctant to ask questions or discuss their problems with health personnel to some extent. The Thai culture, that regards an objection to another's well-intentioned offer as inappropriate manners, led elderly people to hesitate to refuse some treatments offered to them. In addition, multiple illness belief systems led them to be unsure about the underlying cause of pain and the way to self-manage the symptoms, which might be based on spiritual beliefs, destiny, karma, or scientific approaches.

5.2.2 Core category

The core process/category represents the self-management process that elderly people used to deal with the problem *uncertainty about pain self-management*. The emergent theory centres on the core category, which illustrates the principal phenomenon and overarches all other categories. It explicates a range of behaviours identified in other categories, and accounts for variations in the patterns of activities undertaken by elderly in response to the basic social psychological problem. The core process *striving to maintain well-being: adapting to chronic pain* (Figure 5.1 and Table 5.1) emerges frequently and comprises three identifiable transitional phases: (i) *undergoing wellness–illness change*, (ii) *coming to terms with chronic pain*, and (iii) *modulating autonomous–dependent pain management*. This series of transitions is a delineation of the continuing process of change. One behaviour may encompass more than one transitional phase at any given time.

In the first transition *undergoing wellness–illness change*, elderly people experienced changes in their wellness–illness continuum as a result of chronic pain. In the second transition *coming to terms with chronic pain*, they acknowledged and tried to accept the presence of pain and its effect on their lives. The third transition *modulating autonomous–dependent pain management* illustrates variation in their autonomy in relation to overall level of independence, decision making, and effort required to obtain pain-related information and pain management resources.

5.2.3 Categories and strategies

Three interrelated and overlapping categories that are embraced by the core category emerge from analysis of the way elderly people self-managed their chronic pain: *making sense of pain, seeking the most suitable treatment,* and *integrating treatment* *into everyday life*. These categories encompass wide-ranging elements of processes that comprise several strategies within each category.

5.2.3.1 Making sense of pain

Making sense of pain emerged as the first stage of elderly people's experience of pain (Figure 5.1 and Table 5.1). Two factors influenced how these people made sense of their pain: *pain experiences* and *life philosophy*. Those who suffered severe pain strove to understand their symptoms more so than those who experienced mild or moderate pain. Similarly, those who had persistent pain talked about it more, providing oral evidence of their attempts to understand their pain. In addition, those who expressed a personal life philosophy of longevity indicated that they made more effort to make sense of their pain.

Elderly people used three main strategies to make sense of their pain symptoms: *asking questions, making causal assumptions and predicting prognosis,* and *identifying pain-related influences*. Asking questions occurred soon after their initial experience of pain. They asked questions of themselves and other people, including lay people, health personnel and especially their immediate family members and 'relatives'. Making causal assumptions and predicting prognosis occurred simultaneously with asking questions. They attempted to analyse the cause of their pain and to predict its prognosis. The assumed causes and predicted prognosis were closely related; in that the most common cause hypothesised was incurable underlying conditions that contributed to a poor prognosis. They used self-observation to identify factors that affected their pain, including precipitating, intensifying, and alleviating factors as well as signs of and co-existing symptoms. The influences were generally related to doing physical work, walking, posture, and consuming certain foods.

5.2.3.2 Seeking the most suitable treatment

The category *seeking the most suitable treatment* occurred at the same time as, or immediately after, the first category *making sense of pain* (Figure 5.1 and Table 5.1). Elderly people attempted to find treatments that were most suited to their current situation. These treatments did not always remain appropriate as a result of context changes. Once a contextual situation varied, elderly people were required to alter their approaches to their illnesses.

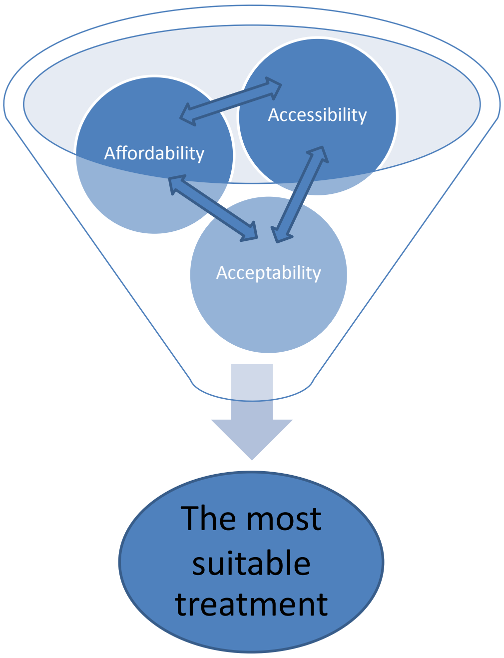

Figure 5.2 The second category *seeking the most suitable treatment*

Six influences affected the way elderly people sought the most appropriate treatment for their situation: *priority given to pain; information and resource seeking skills; reflective thinking skills; access to pain-related information; access to pain relief treatment;* and *satisfaction with, and preferences for, practitioners and treatments*. Those who gave a higher priority to treating their pain tended to seek the most suitable treatment earlier, whereas those who placed a lower priority on symptom relief delayed help-seeking until other higher priorities, such as taking care of seriously ill family members, had been completed. Most had limited *information and resource seeking skills* about chronic pain self-management, whilst some indicated that their good skills facilitated self-management. *Reflective thinking skills* influenced the way they sought treatment. Some, without proper consideration, tried to obtain almost every treatment introduced to them, whereas others examined the information about treatments critically before seeking them. Adequate *access to pain-related information* and *access to pain relief treatment* could facilitate chronic pain self-management; however, it was shown that they had limitations in accessing information and treatment. Satisfaction with practitioners and treatments influenced how they self-managed their pain, whilst some dissatisfaction with Western-oriented treatment was reported to motivate them to use other types of treatment. In relation to Western-oriented treatment, many believed that having an injection was the most effective treatment method for illness, including pain. They expressed more satisfaction with, and tended to re-visit, practitioners who gave injections.

The category *seeking the most suitable treatment* includes five strategies: *gathering and responding to information, accessing resources, using trial and error, evaluating treatments,* and *evaluating practitioners*. Elderly people gathered pain management information in connection with the type, application, availability, effectiveness, and cost of treatment, and about providers of particular treatments. They collected information mainly from lay people, whereas less information was gathered from health personnel because of limited interaction with them. The most common ways of gathering information from non-health personnel were through face-to-face conversation, telephone, and listening to radio programmes. The common ways of collecting pain management information from health personnel included attending to suggestions, asking questions, listening to discussions among health personnel, and interpreting their gestures.

After gathering information, they responded to the information in several ways, including examining its reliability; assessing the feasibility of the suggestions given; and identifying further actions, such as deciding whether or not to follow the instructions, and consulting other people about the information. Once they were interested in using particular treatments, they accessed resources to enable them to obtain these treatments, such as financial support, transportation, and the treatment remedies. Sometimes, they received information and resources about pain management simultaneously.

After elderly participants obtained sufficient resources about particular treatments, they used trial and error to evaluate the treatment. They continued the trial and error process until they could locate the most appropriate pain management for that particular time and context, and returned to it if different times and contexts affected the appropriateness of the treatments they had identified as suitable. When they visited practitioners, they evaluated the treatment offered as well as the practitioners. As a result, the strategies *evaluating treatment* and *evaluating practitioner* occurred at the same time as trial and error was adopted. They assessed the treatment in relation to its effectiveness, cost, cost-effectiveness, satisfaction and convenience. Simultaneously, they evaluated the practitioners who provided the treatments using several criteria, including practitioners' knowledge and skills about the treatments, behaviours while delivering the treatments, concerns about their well-being, and moral principles.

5.2.3.3 Integrating treatment into everyday life

The category integrating treatment into everyday life incorporates behaviours that highlight the way elderly people put two aspects together: (a) the treatments considered to be most suited to their context, as outcomes from *seeking the most suitable treatment* process; and (b) their usual patterns of daily living (Figure 5.1 and Table 5.1). Self-care ability was the main influence that affected this integration. Those who were more active and independent had more flexibility to integrate their preferred treatments into their lives. Conversely, those who required a high level of support from others had limited ways for integration to occur.

The category *integrating treatment into everyday life* entails three strategies: *incorporating treatment into daily activities, minimising adverse effects of treatment,* and *maintaining optimal health status*. As most of their selected pain treatments required regular use for a period of time, elderly people incorporated treatment into activities of daily living by using reminders, mainly meal times and certain activities such as while watching soap opera TV programmes. *Minimising adverse effects of treatment* occurred because they experienced some side effects from what was their most suitable or accessible treatment. This required some adjustment to minimise these adverse effects and to enable them to continue using the treatment.

Maintaining optimal health status occurred when they tried to maintain the best possible health status and avoided compromising their health in ways that might increase their pain. They attempted to achieve this optimal health status indirectly by adopting realistic goals, modifying roles, looking after their general health and managing co-existing illnesses well. In the early stage of their pain experience, elderly people aimed to eradicate their pain symptoms and its causes. They wished to maintain their usual level of involvement in family, social, and religious activities. They then realised that these expectations were impracticable for them and eventually adopted more realistic goals. For the expectations about pain relief, they expressed a desire to experience a tolerable degree of pain instead of having no pain. Similarly, their goals regarding their family, social, and religious roles were modified. They also tried to preserve their health and manage symptoms other than pain at the same time as they self-managed the pain.

5.2.4 Contextual determinants

The core category and the three categories are influenced by four contextual determinants (Figure 5.1 and Table 5.1): *living in rural isolation, living in poverty, availability of support,* and *quality of relationships with practitioners*. These determinants moderated the way they self-managed their chronic pain.

The elderly people suffering chronic pain lived in rural communities, which contributed to their isolation from the health care resources required for pain self-management. They also had relatively low incomes and found it difficult to make ends meet with these incomes. Impoverishment exacerbated their ability to access quality pain treatments. Within their limited resources, most indicated they received good support from non-health personnel, especially immediate family members, ‘relatives,’ and local communities. Availability of support from health personnel and the government was also reported. Support from health personnel staff was predominantly in the form of prescriptions for painkillers. The most common form of assistance from the government was monthly income support, with half of participants receiving this support. Several mentioned the Universal Health Coverage Scheme. Some expressed that the scheme enabled them to access public health care services at assigned health care settings. Alternatively, others reported rarely or never benefiting from the scheme because of lower satisfaction with public health services than with private health services which were not covered by it. While good relationships with practitioners could enhance quality pain self-management, they indicated better relationships with traditional practitioners than with Western-oriented practitioners.

5.3 OUTLINE OF THE FINDINGS CHAPTERS

In Chapter Six, the basic social psychological problem, *uncertainty about pain self-management* and associated influences, is discussed. In Chapter Seven, the contextual determinants that influence the core process and impinge on the way elderly people self-managed their chronic pain is explicated. This is followed by the presentation and analysis of the three categories. In Chapter Eight, the category *making sense of pain* is presented. In Chapter Nine, the category *seeking the most suitable treatment* is outlined. In Chapter Ten, the category *integrating treatment into every life* is presented. A discussion about the core category or the basic social psychological process *striving to maintain well-being: adapting to chronic pain* is presented in Chapter Eleven. Finally, in Chapter Twelve, a discussion about the research findings is provided, and the limitations of the study are considered. The implications of the research outcomes for practice, administration, education, and research in nursing, other health professionals, and other stakeholders, are also discussed.

5.4 SUMMARY

The study findings are presented in Chapters Five to Eleven. In this chapter, an overview of the findings of the study was provided. It commenced with a diagrammatic presentation of overall findings of the study. The theory or the core process/category *striving to maintain well-being: adapting to chronic pain* was then identified and explicated, together with its various phases, three categories, and contextual determinants. Elderly people who suffered chronic pain went through the process of change in health and illness. A brief synopsis of the core problem *uncertainty about pain self-management,* the categories and strategies, and the contextual determinants was then presented. The three categories included *making sense of pain, seeking the most suitable treatment,* and *integrating treatment into everyday life*. Four contextual determinants moderated the way that elderly people self-managed their chronic pain, including *living in rural isolation, living in poverty, availability of support* and *the quality of relationships with practitioners*.

CHAPTER SIX

BASIC SOCIAL PSYCHOLOGICAL PROBLEM:

UNCERTAINTY ABOUT PAIN SELF-MANAGEMENT

6.1 INTRODUCTION

The study findings are presented in Chapters Five to Eleven. In the previous chapter, an overview of the findings was given. In this chapter, a definition of the Basic Social Psychological Problem is provided and is followed by a discussion of the key factors that constitute the problem, including low health literacy, cultural influences, and multiple illness belief systems. The Basic Social Psychological Problem of the elderly participants in this study is conceived as *uncertainty about pain self-management.*

6.2 UNCERTAINTY ABOUT PAIN SELF-MANAGEMENT

The core problem is apparent in the data even though it is not directly articulated by study participants. It has been conceptualised as *uncertainty about pain self-management*. According to the *Collins Cobuild English Dictionary* (2001), ‘uncertainty’ is a state of doubt about the future or about what is the right thing to do. It is defined as “the inability to determine the meaning of illness-related events occurring when the decision maker is unable to assign definite value to objects or events and/or is unable to accurately predict outcomes” (Mishel & Clayton, 2008, p. 59). In this study, the Basic Social Psychological Problem of the elderly participants suffering chronic pain in their rural communities in north-east Thailand emerges consistently in data from questionnaires, interviews, and observations. They reported being unsure about how to self-manage their chronic pain.

> I don’t know, I have no idea at all. I don’t know what to do …. I cannot find the answer how to make it [the pain] go …. I don’t know where the defect ‘line’ [ligament] in my body is …. I’m not sure whether I should take herbal fruit juice …. [I wonder] if there is any chance [of recovering].
>
> (I: 1)

6.3 FACTORS CONTRIBUTING TO THE BASIC SOCIAL PSYCHOLOGICAL PROBLEM

The major factors affecting the basic social psychological problem are low health literacy, cultural influences, and multiple illness belief systems. These influences are interrelated, but are discussed separately below.

6.3.1 Low health literacy

Health information was important for elderly people to self-manage their chronic pain. However, most indicated that low health literacy hindered their chronic pain self-management. Two main influences contributed to their low health literacy: low level of education and limited access to information from health personnel.

All elderly people had attended primary school only.[50] This limited level of education had a major influence on their low level of health literacy, which in turn, contributed to their obtaining less health information, including on pain management issues. Only one reported that she accessed information on chronic pain self-management from printed material obtained from the 'Tambon' (Sub-District) Administrative Organisation.[51] Information provided indicated that 'Ya Nang,'[52] an ivy leaf found in local forests, had many medicinal effects, including pain relief.

> People said that the liquid of the Ya Nang leaf can treat everything [every ailment, including pain]. I read this from information that I got from the Sub-district Administrative Organisation.
>
> (I: 7)

Others did not mention their experiences of obtaining information from printed materials; instead, they stated that they were unaware of how to relieve their pain symptoms. Some indicated that they did not know about the pain-related support that

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[50] Primary school was the highest level of schooling the elderly people completed. See Section 4.6 'Overview of the participants' Chapter Four 'Methods to data collection,' for more details.

[51] There are six different forms of Thai local government, comprising three urban-based forms: Bangkok Metropolitan Administration (BMA), Municipality, and the City of Pattaya; and three rural-based forms: The Provincial Administrative Organisation (PAO), The 'Sukhapiban' or Sanitary Committee, and The 'Tambon' (Sub-District) Administrative Organisation (TAO) (Thamrongthanyawong, 2010; United Nations Economics and Social Commission for Asia and the Pacific, 2010).

[52] The scientific name of 'Ya Nang' is *Tiliacora triandra* Diels from the family Menispermaceae. It has been widely used for treatment of fever and malaria in folk medicine (Chuakul, Saralamp, & Boonpleng, 2002; Saiin & Markmee, 2003; Singthong, Ningsanond, & Cui, 2009).

they could request from government and non-government organisations, and agents such as individuals who worked in public health care settings.

> Can I ask for [help from the government]?[53] Will health care staff give me a treatment? [If I can ask], I will ask for medications to relieve my waist pain.
>
> (I: 21)

Low education levels made it difficult for them to obtain and interpret information about pain self-management from printed materials, and resulted in ambiguity about their chronic pain. In addition, insufficient information from health personnel contributed to their uncertainty about self-management of pain. Influences contributing to this situation included limited access to health care services, limited consultation time with health personal,[54] and cultural influences.[55] Many reported that they received limited information from health personnel about the causes of, the treatment methods for, and the prognosis of, their chronic pain.

> They (health care staff at the hospital) gave me an injection and some oral medication. They did not say anything about my pain.
>
> (I: 17)

With low health literacy, a great deal of information from lay people also contributed to them being uncertain about pain self-management. Most indicated that they obtained much information from lay people, such as family members, 'relatives,' traditional healers, and drug vendors. Drug vendors visited and offered them pain relief treatment frequently. Radio programmes also promoted pain medications every day.[56]

> People, who carry their product on their shoulder, sell the product in a package. They come very often …. They come to me and urge me to buy their product to relieve leg pain.
>
> (I: 5)

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[53] The Thai word 'Luang' used by people in the study settings referred to all forms of Thai government, including national and local governments, and all staff who worked for the government, such as health care providers working in public health settings.

[54] See Section 9.2.5 'Access to pain relief treatment,' Chapter Nine 'Seeking the most suitable treatments,' for more information.

[55] See Section 6.3.2 'Cultural influences,' for more information.

[56] See Section 9.2.4 'Access to pain-related information,' Chapter Nine 'Seeking the most suitable treatments,' for more information.

6.3.2 Cultural influences

Two cultural factors influenced elderly people's health behaviours, including self-management of their chronic pain in the present study: the social status of health personnel compared with themselves, together with the culture of consideration and respect for others,[57] particularly 'relatives' in this context. An ethnographic study of cultural perceptions of illness among north-east Thai villagers by Nuntaboot (1994) revealed the villagers perceived themselves as inferior to doctors and other health personnel, and the kin-based management concept had a great influence on their health behaviours. These two cultural influences were apparent in the present study. The high respect towards health personnel in traditional Thai culture (Pongsupap & Lerberghe, 2006b) contributed to elderly people feeling uncomfortable when communicating with these personnel, resulting in unwillingness and hesitation to share opinions or ask questions during consultations. Passive one-way communication was used commonly when consulting with practitioners. Most were reluctant to express their needs or to ask questions. They listened to the suggestions given to them with little interaction with health personnel. It was evident in the study by Nuntaboot (1994) and also in the following observation by the researcher in the present study that some health personnel felt annoyed when asked questions.

> I went to the examination room with the participant and her niece. The doctor asked the participant what made her visit him. She replied that she felt pain in her right leg. He asked which part of her leg she felt pain. She said that she felt pain from the right hip down to the ankle. He told her to stand up and bend her body to the left and right side, and then asked her whether or not she felt tense. Immediately, after she replied that she felt tense, he diagnosed that her pain came because some part of her bone was compressing on a nerve. He said he would give her some oral medications and asked whether or not she wanted to have an injection and ultrasound as part of the treatment. When her niece asked him when, where and how much the ultrasound would be, he replied impolitely that he wanted to finish his explanation before allowing any questions to arise.
>
> (O: 31)

As a consequence, they obtained limited information about their chronic pain, contributing to their uncertainty about self-management. In addition, the Thai culture

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[57] 'Kreangjai' in Thai means to be considerate of other people's feelings, respectful of other people, fearful to approach and reluctant to impose upon them (Pongsupap & Lerberghe, 2006b; Thai-language.com, 2010).

of consideration and respect for others made them uncertain about chronic pain self-management to a certain extent. Thai people regard declining ‘good intention offers’ as inappropriate. In the present study, elderly people reported that many ‘relatives’[58] shared experiences about treatment methods with them, while some ‘relatives’ gave them advice with good intentions. However, they also indicated that some used kinship to take advantage of them. Sometimes they followed suggestions and/or bought medications as a result out of respect for ‘relatives’; many drug vendors visited them with their ‘relatives’ to sell medications and some ‘relatives’ sold particular types of medicines to them. Refusing too adamantly was regarded as paying no respect to their ‘relatives’.

6.3.3 Multiple illness belief systems

Nuntaboot (1994) revealed a ‘multiple causation theory of illness’ among rural north-east Thai villagers. The theory suggested that villagers believed in many causes of illness, including spirits (supernatural beings), the end-of-life stage, doing wrong to the body and mind, ‘karma,’[59] and disease. A later study by Phongphit and Hewison (2001) reported that villagers in north-east Thailand believed in spiritual treatments and healing powers, based on principles from Hindu, Thai and north-east practices. There were many kinds of traditional healers whom these villagers visited for treating illness,[60] including ‘maw song’: people who claimed they possessed a god and could diagnose sickness; ‘maw tham’: healers who had learnt healing skills from their teachers, who were also believed to have moral integrity and treated illness with their sacred formula;[61] ‘maw nam mon’: those who treated illness with sacred water;[62] and ‘maw nam man’: those who cured sickness with healing oils (Phongphit & Hewison, 2001). Pylypa (2007) also reported that some people in north-east Thailand believed

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[58] In this context, relatives include neighbours and other villagers. See Chapter Seven, ‘Contextual determinants,’ for more information.

[59] Buddhists believe that everything they do in this or in a previous life will return to them some time in their life, sooner or later (Keown & Prebish, 2007).

[60] North-east villagers call any type of practitioner a ‘doctor,’ or in Thai, a ‘maw’ (Phongphit & Hewison, 2001).

[61] In Thai, ‘Khata’ requires healers and patients to follow strict rules, such as healers must not walk under a clothes line or stairs, and when healing is proceeding, no one in the house is allowed to consume alcohol (Phongphit & Hewison, 2001).

[62] Most Thai Buddhists believe that sacred water is good for their lives. It can bring good luck and eliminate misfortune. North-east Thai villagers also believe that it helps purify them from evil. The sacred water is blessed by the gods, and consecrated by monks, Brahman, or ‘maw nam mon.’ To make the water sacred these people chant while lighting a candle and letting the candle wax fall into a bowl of clean water (Phongphit & Hewison, 2001).

that several illnesses were incompatible with, or were exacerbated by, Western-oriented treatments. As a result of these beliefs the people were fearful of, and avoided accessing, Western-oriented health care services (Pylypa, 2007).

In the present study, elderly people's beliefs about illness causation included spirits, explaining that some supernatural causes brought them pain; destiny, claiming that they were at the endpoint of life and it was normal for them to experience pain; karma, indicating that their chronic pain resulted from fate or accumulated wrong doings they had done from the past; and disease, reporting that several scientific causes could result in pain such as degeneration of body structures associated with advanced age. Some called illnesses by traditional Thai names but received Western-oriented treatments for them. They also used a mechanistic analogy to describe their pain.

> The doctor at the clinic told me that I have 'Wind Pradong'[63] …. After I took his medication, I recovered until now …. The pain in my knee joint is related to lime [a substance containing calcium] …. It is similar to a tractor without any lubricant. When we put some lubricant in it, it will become loose and move smoothly."
>
> (I: 29)

These beliefs about the causes of ill health contributed to their uncertainty. Several indicated that the cause/s of their illness or chronic pain might not be detectable or treatable by Western-oriented approaches. They also worried that such treatments might be harmful to them; therefore, they were reluctant to seek treatment from Western-oriented health care services.

> If I go to see a doctor … if I go to the hospital … they will give me treatment in their style [Western-oriented treatment]. If their treatment works, it works [I will get better]. If their treatment doesn't work, I will just die. Isn't that right?
>
> (I: 28)

They accessed Western-oriented health care services for treatment for some illnesses and also believed some diseases were caused by spirits. This contributes to their feelings of uncertainty about the cause and management of their chronic pain.

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[63] 'Pradong' a disease appearing in popular belief, whose symptoms are wide ranging, the most common of which is muscular pain (Sringernyuang, 2000).

> Sometimes the evil spirit is in people’s bodies. When the people go to hospital, I don’t know whether it is because there is no ‘ghost’ in those people while they are in the hospital or because of other reasons, but these people have no symptoms while they are in the hospital. However, when they leave the hospital, the symptoms reoccur suddenly. Many people have these conditions … I am in two minds: one mind tells me to go [to hospital for treatment], the other tells me not to go.
>
> (I: 4)

6.4 SUMMARY

The findings of the study are presented in seven chapters. In this chapter, the basic social psychological problem that elderly participants faced was outlined and discussed. The problem was conceptualised as *uncertainty about pain self-management*, and comprised three main contributing factors. Low health literacy prevented them from obtaining sufficient information to ensure their self-management. Cultural influences led to limited discussions with health personnel and to hesitation to decline treatments offered by others. Multiple beliefs related to pain made them unsure about the underlying cause of their pain. In the subsequent chapters, contextual determinants, followed by three categories, are presented.

CHAPTER SEVEN

CONTEXTUAL DETERMINANTS

7.1 INTRODUCTION

The study findings are presented in Chapters Five to Eleven. An overview of the findings and the Basic Social Psychological Problem were discussed in the two previous chapters. Contextual determinants that influenced the participants' self-management are discussed in this chapter. The elderly people in this study used a variety of methods to self-manage their chronic pain. Influences affecting this process are categorised into four contextual determinants: *living in rural isolation, living in poverty, availability of support,* and *the quality of relationships with practitioners*. The elderly people who suffered chronic pain lived in rural communities and were relatively poor, which both contributed to their limited ability to access pain treatments. The support available had a great influence on their pain management, whereas relationships with practitioners were also the major consideration when choosing treatment.

7.2 LIVING IN RURAL ISOLATION

The villages in which participants resided were considerably isolated from the capitals of their respective districts and provinces.[64] In this study, rural isolation resulted in the participants being isolated from health care resources for management of their chronic pain. The only services close to the study villages were health centres with primary care services responsible for people in sub-districts. However, these centres provided only basic medical care and had no medical staff. Furthermore, as public hospitals, private hospitals, and private clinics were all located in the district or provincial capitals, the participants were forced to rely on expensive transport to access them. This was because public transport in rural and regional areas in Thailand is organised mainly by private operators. For example, Villages A and B had no public transport to their respective district capitals. Instead, villagers were dependent on personal or

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[64] See Section 4.4 'Overview of villages' Chapter Four 'Methods of data collection,' for more information.

rented vehicles to commute. In Village C, private buses provided only infrequent and unreliable transport to the district capital. Therefore, most villagers going to the district capital had to use their own transport or rent a vehicle from neighbours. Added to this, transport from district capitals to provincial capitals in the three districts was managed by private operators. Although there were state operated trains running between Village C district capital and its provincial capital, minimal transport connections were available at the train station. As a consequence, commuting by road was the preferred method for travelling from the district to the provincial capital. Although some participants' families owned motorcycles, for health related reasons some participants were unable to use them to visit the health settings.

> Previously, I could ride a motorcycle [as a passenger], and I could go [to see the doctor]. Now, I feel numbness; I am afraid of falling from the motorcycle … I don't know where to put my legs [to maintain balance and to experience less pain]. When the motorcycle is moving, my feeling of numbness is up to my buttocks … I can only ride a motorcycle for short distances such as within my village. For longer distances, it is difficult for me to ride because of my legs. If I go by [rented] car, it is okay, I can go to see the doctor [but the car rental fee is expensive for me].
>
> (I: 5)

Overall, apart from local transport to the health centres, the participants relied on a variety of often unreliable forms of transport. "There is no public transport to go there [so it is quite inconvenient for me to go]" (I: 6).

7.3 LIVING IN POVERTY

In addition to rural isolation, poverty was a major problem for people living in rural north-east communities (Office of the National Economic and Social Development Board Thailand, 2004).[65] Although all needy Thai elderly were eligible to receive a 'Bia Young Cheep,' a monthly payment of 500 baht from the government,[66] not all of them actually received this.[67] The payment was a means-tested benefit for elderly

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[65] See Section 2.2.2 'Socioeconomic' Chapter Two 'Literature review,' for more information.

[66] The 'Bia Young Cheep' was introduced by the Department of Public Welfare 1993 to provide a monthly allowance for needy elderly in rural areas (Knodel, Chayovan, Graisurapong, & Surraratdecha, 2000). The Thai Elderly Act states that all Thai elderly people have a right to receive a monthly payment, as required (Ageing Thai Organization, 2007b; Ministry of Social Development and Human Security Thailand, 2005).

[67] In 2009**,** the monthly allowance was provided to 3.5 million elderly people (National News Bureau of Thailand, 2009), but this is considerably less than the estimated number of elderly people (7.3 million)

people; however, several factors influenced the distribution of the payment in different districts, including financial plans of the district administration organisations and the numbers of elderly people in the district.[68] In the present study, half the participants received ‘Bia Young Cheep.’ One-third claimed that it was their only income source, and was helpful to them. Several indicated that they had no income from their own work or from the government, and relied on their families to cover their expenses.

> I do not receive a monthly payment from the government [all my income is from my family and ‘relatives’]. Some people who also face more problems of shortage of money are older than me and do not receive the payment either.
>
> (I: 7)

Not only were participants’ incomes low or nonexistent, but the household incomes of most of their families were also meagre, with an average of 6,219 baht per month, and where the number of family members ranged from one to ten. Most participants’ income was obtained from the Thai government, and amounted to only 500 baht per month (less than 20 Australian dollars) (National News Bureau of Thailand, 2009). Some had no independent income[69] and were dependent on their already poor families for financial support.[70]

Moreover, as a consequence of inadequate provision of public health services, most participants sought treatment for their chronic pain from private health agencies. Service fees for care from these agencies combined with transport costs and the financial difficulties of participants had a compounding effect. High expenses related to pain relief exacerbated most participants’ financial situations; similarly their

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in the country in mid 2009 (Institute for Population and Social Research, 2009). This information is consistent with the report of the Ageing Thai Association, that only 53.8% of elderly people reported receiving the monthly allowance (Ageing Thai Organization, 2007a). During the study period, all elderly were eligible for the ‘Bia Young Cheep’ payment. However, only approximately half of the elderly people throughout the country receive this payment due to limited funds (Ageing Thai Organization, 2007b).

[68] At the time of the study, the allowance was based on a regulation from the Ministry of Interior in 2005 (Ministry of Interior Thailand, 2005). The District Administration Organisation may provide its own budget or seek support from the Provincial Administration Organisation. The selection process in this regulation includes registration of all older people in the areas and community agreement for eligible older people (Ministry of Interior Thailand, 2005). However, some participants in the present study with insufficient income report they do not receive the allowance.

[69] Some participants with insufficient income in this study report they have not received this allowance.

[70] See Section 4.6 ‘Overview of the participants’ Chapter Four ‘Methods of data collection,’ for more information.

financial problems made it difficult for them to receive or maintain therapy for their chronic pain. Most used Western-oriented treatments in private settings and spent a great deal of money doing so. “I went to the … private hospital. I spent over 10,000 baht[71]” (I: 10). Some stated that they were forced to stop seeking Western treatment for their chronic pain because they did not have enough money to pay for the services. “The reason I stopped going to see the doctor … is not because the pain is gone … I don’t have enough money” (I: 7).

The cost of transport was another factor contributing to difficulties in accessing health care services for chronic pain relief. Because all public and private health care facilities with medical staff were located a considerable distance from the participants’ residences, transport was necessary to access these services. With limited public transport available[72] if they did not have their own transport, they depended on private transport which cost more money. “Renting a car costs a lot of money. It costs 400 to 500 baht” (I: 7).

In addition to transport costs, they also needed to pay for expenses such as food while away from home receiving therapy. Such costs were apparent through dialogue with some participants as well as through this researcher’s observation.

> I accompanied a participant on the day she went to the second clinic.[73] A couple of her cousins who lived next door and had a pick-up car took us to the clinic. We (the participant, her two daughters, her six month old niece, her two year old nephew, her cousin, a couple of her neighbours, and I) left the village around 5 pm … I went into the consultation room to see the doctor together with the participant at around 7.30pm …. On the way back, we stopped at a market to buy some food for dinner because it was too late to cook when we arrived at the village at around 9pm.
>
> (O: 31)

While most pointed out that the main way to reduce their chronic pain was to reduce or stop performing physical activities, such as working, they were forced to maintain these activities due to poverty. However, physical activity exacerbated their chronic pain.

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[71] This is an enormous amount of money compared to their income.

[72] See Section 7.2 ‘Living in rural isolation,’ for more information.

[73] The elderly woman consulted health centre staff in the village for a period of time. After that she went to see a doctor in another private clinic located in the district capital before visiting the private clinic that the researcher observed, which was the second clinic she visited.

> [The doctor said] “If [you] want to recover, you need to stop working.” I said to him, “If I do no work, then will I have food to eat, doctor? I am just a rural person [and if I don’t work I] won’t have food to eat.”
>
> (I: 7)

Therefore, without sufficient money to pay for pain remedies, transport, and expenses while away from home receiving treatment, participants were unable to obtain treatments that could reduce their pain. At the same time, inadequate money for living made it necessary for participants to maintain activities (such as carrying heavy objects, walking long distances, and working) even though stopping those activities could reduce their pain.

7.4 AVAILABILITY OF SUPPORT

The participants who had adequate and satisfactory support stated that they had greater flexibility in managing their chronic pain. However, sometimes this support made them reluctant to make decisions about their pain management. The sources of support that affected the way they managed their chronic pain included family members, ‘relatives,’ community, health personnel, and the government.

7.4.1 Family support

The most useful support for participants’ self-management of chronic pain was from immediate family members. Families played a vital role in supporting participants to manage their chronic pain and fulfil their daily living needs. Those who received greater family support articulated that they had less difficulty in dealing with their pain than those who received less support. Most reported that they did not have to ask for support, but instead family members offered help to them in self-managing of their chronic pain. This support was categorised into three main dimensions: fulfilling individual needs, providing support regarding remedies for chronic pain management, and facilitating role adjustment.

First, in fulfilling individual needs, family members executed four responsibilities in relation to the participants’ basic physical, psychological, social, and spiritual[74] needs. Physical support included assistance with their Activities of Daily Living (ADLs). Most expressed appreciation of the excellent care provided by their children.

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[74] Spiritual needs refer to particular sets of beliefs and values that primarily are constituted from religions and have an influence on individuals’ practices (Brooker, 2006; Martin & McFerran, 2008).

Psychological support helped reduce their worries and encouraged them to be hopeful and optimistic.

> "Take it easy, grandma, there are so many people who are in greater difficulty than you. Nobody wants it to happen, but it happens. Be patient," they say. They do not say that I want to be like this. They do not blame me. "Nobody wants to be [in this condition], grandma; be patient, other people also have some illnesses. It is an individual illness, your illness and their illnesses."
>
> (I: 1)

Family support to help them meet their social needs included helping them visit friends or 'relatives,' and taking them to join in social activities. Spiritual support was mainly assistance in performing or joining in religious activities at home and at local temples. All participants had a strong belief in Buddhism and took part in religious activities regularly. This included giving offerings to the monks at their homes, when the monks walked around the villages to receive offerings from the people, or at the temples. Most felt unhappy when they could not perform these religious activities. Instead, they enlisted family members' assistance to undertake the activity on their behalf, or to accompany them to the temple. Despite family members providing good physical and social support, such support was neither available for all participants nor available all the time when needed, and this affected their self-management of chronic pain.

Second, family support in relation to chronic pain management also included taking them to health care services for chronic pain and providing care to them at the treatment settings, delivering information about remedies, and providing remedies. Most indicated that family members provided them with information about remedies for chronic pain, such as simple exercises, and instructions on how to use particular remedies: for instance, how to use and store a hot compress. They expressed appreciation of family members for providing pain relief remedies. These included: practising activities that help relieve pain, in particular giving a massage; making or preparing remedies, such as making a homemade hot compress; and obtaining remedies and helping to administer them. In contrast, some participants reported they were unable to obtain their preferred remedies for chronic pain because they did not have anyone bring the remedies to them.

> I took some holy water and I felt better … I did not feel pain very much …. When my family members did not bring it for me to take, I have to live with the complications from not having the holy water.
>
> (I: 28)

Third, family members facilitated participants' role adjustment, primarily by taking over their duties and, in most instances, providing financial support.

> One of my daughters [who lives far away] came to take care of me for two months. My children who live in Khon Kaen come regularly …. My son takes the role of making steamed rice [which was done by me every morning before I had this pain] now. Other children of mine told him to stay here to take care of me …. My children give me [money to go to see doctors]. They share [every child gives some] money to send me, 4,000 [or] 5,000 [or] 6,000 baht each time, so that I can have money for medications. There is some money left over, and I use it to buy food. A month later, they send me money again.
>
> (I: 11)

In contrast, some indicated they received inadequate support from their families. They felt they were on their own and were responsible for managing their own pain. As a consequence, they had limited resources to help them self-manage their chronic pain. Some pointed out that lack of support from their family members, especially when they required help to obtain a particular treatment, contributed to the delay in obtaining treatment and to them developing chronic symptoms.

> As I observe, if people hurry to go to see a doctor or drink sacred water,[75] they might not have symptoms for a long time. But my children are not interested in [accompanying me to see the doctor or finding sacred water for me]. I told them about my symptoms but they did not pay attention to them.
>
> (I: 28)

Some pointed out that due to their children's work commitments to earn sufficient money to cover their families' living expenses, they did not have anybody to stay with them and to take care of them when they were in treatment settings for prolonged periods of time, such as being hospitalised for treatment of their chronic pain. As a consequence, they decided not to visit these settings.[76]

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[75] Sacred water or 'Nam Mon' is water that is believed to be blessed by god or have Buddhist power and healing powers (Phongphit & Hewison, 2001).

[76] The elderly people explained that it was necessary to have someone stay with them if they were admitted to hospital. As many activities in the hospital were not familiar to them and they might need help when hospital staff were not available.

> If I go to the hospital and they [health care staff] tell me to stay at the hospital … I will have nobody to look after me at the hospital …. If not so [if I have someone who can look after me at the hospital], I will go [to the hospital].
>
> (I: 5)

In addition, some who were concerned about causing too much trouble to their families hindered their own pain management by not disclosing their pain. Sometimes good family support led participants to avoid complaining about their pain so that family members would not experience negative effects through worrying about them.

> I do not say anything else that makes them [family members] feel uncomfortable; do not say that I'm severely ill [or] have severe pain. [I tell them that] I'm still the same. But actually, in my mind I feel that it [my illness] is gradually getting worse …. I do not say such words that might make them unable to concentrate on their work or their study. They will think that I am suffering badly, so I do not say such words. Little things, I hide them and keep them secret to myself. However, I really think that as I have had the pain for four to five years, maybe I am near death.
>
> (I: 1)

7.4.2 'Relatives' and community support

Similar to people living in other rural communities in Thailand, participants had close relationships with others in their communities. Almost all considered these others as 'relatives'[77] to some extent. Support from these 'relatives' resembled support from their immediate and wider family circle. 'Relatives' provided assistance primarily in relation to self-management of chronic pain, as well as delivering other support, in particular, assisting them to manage other health problems, giving them psychological encouragement, and supporting them financially.

Regarding chronic pain self-management, 'relatives' helped participants by taking them to service settings, informing them about remedies or other treatments, being around them, and providing remedies. Some participants indicated that 'relatives' who were traditional practitioners made remedies and provided them without charge. Some articulated that their 'relatives' went to collect the remedies and gave some of these to them.

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[77] All participants call helpful and supportive neighbours 'relatives' even though they do not have genetic or marital relationships.

> [The herbs of Doctor Phi], when I have no more left, I go to ask for the herbs. He [Phi] brought them for other people [for free] … He sends them to his younger sister to keep to give to other people for free many times … He is a traditional practitioner. He has already studied and passed the test for Traditional Medicine.
>
> (I: 18)

Communities supported participants indirectly to manage their chronic pain through cultural expectations and groups or organisations, in particular district organisation administrations in the study villages and an older people's group in one village. An important part of Thai culture is to provide support to elderly relatives. Being grateful, especially to parents and senior relatives, for being looked after in childhood is valued highly by Thais. A sense of responsibility for taking care of elderly parents is a dominant feature of Thai culture (UNESCO Bangkok Office, 2007). Similarly, people in the study settings were encouraged to respect their older citizens and provided the best care for their parents and senior relatives in return for their taking care of them in the past. Support from community organisations was similar in all study villages. During the Thai New Year holidays,[78] the district organisation administrations of the three study villages, like other local community organisations throughout Thailand, conducted activities to pay respect to senior citizens. Several participants were invited to join in the activities and were given gifts such as a bar of soap, a bath towel, and a powder bottle. In addition, Village A had a group of older people who conducted several activities, such as group exercises and study tour activities. Two study participants were members of the group and found it helpful. However, they stopped attending the group activities, one because of difficulty in getting around due to her chronic pain, the other because she was unable to follow the steps in the group exercises. The group's activities ceased prior to the commencement of the present study.

> When I see the car [bringing elderly to the Technology College to join in the exercise activities], it reminds me of the time I could get into it unaided. Now, I cannot get into it [the car] …. My legs are not the same as before. I just go to some closer place. I cannot go far away.
>
> (I: 12)

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[78] The Thai New Year Holidays are on 13–15 April every year. The 13th April is also the 'National Day for Older Persons' (The Government Public Relations Department Thailand, 2005).

7.4.3 Health personnel and governmental support

The participants who obtained better care from health personnel experienced less difficulties dealing with their chronic pain. Health personnel helped them manage chronic pain directly by providing pain-related treatment. The treatment was mainly the provision of several forms of painkillers: oral and injectable painkillers, and an analgesic balm. The most common types of painkillers were paracetamol and non-steroidal anti-inflammatory drugs (NSAIDs), in particular Diclofenac, Ibuprofen, Piroxicam, and Naprosyn. This indicated that more attention was given to relieving the symptoms of pain rather than treating the underlying causes. Another common prescription for participants was a calcium supplement.[79]

Health personnel also supported chronic pain self-management indirectly in two main ways: caring for other illnesses, and promoting health. More than two-thirds of the participants had other health problems, and the four most common chronic illnesses requiring continuing care and follow-up appointments were hypertension, diabetes mellitus, heart disease, and thyroid disorder. Those who suffered these illnesses had their follow-up appointment with their district hospitals every one or two months. Some who had good control of these conditions were referred to health centres for maintenance care. Apart from providing care for chronic illnesses, health personnel also delivered care for acute illness. Some participants had a favourable impression of the support they received from these personnel.

> I went to the health centre to see Nan, the health centre staff member. But I go to see Nan only when I am in a very serious condition. When I had a very serious condition that I cannot explain, I ran to see Nan … She made me recover. She has saved my life three times already.
>
> (I: 16)

In promoting the health status of the participants, health personnel focused mainly on exercises. Several reported that they were encouraged to do exercises by, or learn

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[79] Calcium supplementation is recommended widely for older people to prevent osteoporotic fractures (Tang, Eslick, Nowson, Smith, & Bensoussan, 2007). Osteoporosis is associated with a reduction in bone strength and increases the risk of fractures which have a consequence in pain and a decline in quality of life. Prevalence of this disease is higher in older age groups and is continuing to increase in the older population (Reginster & Burlet, 2006).

exercises from, the health personnel. “Nan, the health care staff, went to train [people how to exercise] at the temple. So, I remember [what she said], and do it myself at home. She trains [people] about these [exercises] annually” (I: 12).

The Thai government has several strategies to support senior citizens (Jitapunkul & Wivatvanit, 2009), in particular the proclamation of The National Day for Older Persons, which began in 1982.[80] The Thai Elderly Act 2003 (Ageing Thai Organization, 2007b; Jitapunkul & Wivatvanit, 2009; Ministry of Social Development and Human Security Thailand, 2005) stipulates the rights of seniors, for instance, to have access to convenient and rapid health care services, obtain education and useful information for living, have appropriate work, gain self-development and join social activities, and be given a payment as necessary. In addition, the Act declares that children who take care of their older parents can obtain tax benefits (Ageing Thai Organization, 2007b). The data from the interviews and observations revealed that government support to the participants was provided in two key areas: access to a health scheme,[81] and financial support in the form of a monthly payment as mentioned previously in this chapter.[82]

All participants had access to a health scheme which enabled them to receive health care services from allocated public health care settings with no cost for standard services. A quarter of participants whose children worked as government officers were covered by the Civil Servant Medical Benefit Scheme, while three-quarters had the Universal Health Coverage Scheme[83] in which the closest primary health care settings

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[80] On the Thai New Year public holidays on 13–15 April (Thai Holidays, 2009), the country celebrates National Day for Older Persons on 13 April and Family Day on 14 April (The Government Public Relations Department Thailand, 2005). During this time, most Thai people who work in other places return to their home town to gather with other family members. The ‘*Rod Nam Dam Hua’* ceremony is traditionally performed by younger people who bring traditional perfume water for their seniors to take a bath, because this day is in the middle of summer, and the seniors in return make a good wish for their younger relatives.

[81] See Section 2.2.3 ‘Thai health care system’ Chapter Two ‘Literature review,’ and Section 4.6 ‘Overview of the participants’ Chapter Four ‘Methods of data collection,’ for more information.

[82] See Section 7.3 ‘Living in poverty,’ for more information.

[83] An Elderly Health Scheme was initiated in 1989 to provide free health services for destitute elderly, and was extended to cover all elderly in 1992. Under this scheme, elderly who have the ‘elderly card’ receive free services from public health care settings, which operate on a referral system from lower level to higher level health facilities. After the Universal Coverage Health Scheme was introduced in 2001, free health services for elderly were continued under the new scheme (Kespichayawattana & Jitapunkul, 2009).

(health centres) in the administrative areas of residence were the first point of service. A referral letter from the primary care setting to the higher level health care facility was required to receive more advanced services than could be obtained at the primary care level. Additional payment was required for some services, in particular, other medications that were not recommended in the national list of essential drugs.[84] The participants had to pay for care from health care settings other than the primary care settings, if they had no referral letter from the health care staff. They found that the health scheme facilitated partial management of their chronic pain. “The government does not help with anything except giving the Universal Health Coverage Insurance Card, which covers payments for me [when I receive services from selective government health care settings]” (I: 5).

Some claimed that they rarely received health care services covered by the public health scheme. Instead, they sought services from private clinics for various reasons, such as inconvenience in accessing public health services, and a belief that private health agencies provided more effective treatment than public services. “Since I have pain, I haven’t been to the [public] hospital at all … I prefer to go to [the private] clinic where I feel comfortable. It is more convenient” (I: 26).

In summary, three key dimensions of care that the health personnel provided to the participants were: helping relieve chronic pain, managing other illnesses, and promoting well-being status. The participants who obtained support experienced fewer difficulties in dealing with their chronic pain. However, support was not always available. The Thai government provided support for elderly people in general by motivating younger people to show concern for senior citizens, and enforcing The Thai Elderly Act 2003, which encouraged better well-being for older people. Government support was provided directly to individual elderly people through the two health schemes (Universal Coverage Health Scheme and Civil Servant Medical Benefit Scheme), which enabled them to receive health care services from the public settings responsible for them.

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[84] Medications covered by the Universal Coverage Health Scheme are based on the national guideline, which provides the list of medications that can be covered by the government health scheme (Food and Drug Administration Thailand, 1999; Kespichayawattana & Jitapunkul, 2009).

7.5 QUALITY OF RELATIONSHIPS WITH PRACTITIONERS

The relationships with practitioners influenced how elderly people managed their chronic pain; the closer the relationships, the more chance for mutual understanding, and the better information and treatment the elderly people received. Some indicated that they obtained more concise information about their chronic pain, and the services they received, because of the close relationship they had with health personnel.

> They [the doctors] do not omit any information [They tell me all information about my illnesses and prognosis]. I also do not omit any information either [I tell them all about my pain management openly] … They said that for a familiar person, they explain everything.
>
> (I: 27)

Another participant reported that health personnel expressed concern and provided suggestions regarding her health wherever they met, because the health personnel had known her during her husband’s long period of hospitalisation.

> Whatever is good [for me], the health care staff suggest me … I mean health care staff at the Chatu Hospital. I know many of them because I go there often. Since I accompanied my husband to go there, I know many of the staff there.
>
> (I: 30)

Others reported that having good relationships with a health centre staff member in their village made their chronic pain management less difficult.

> [I go to have an injection] with Nan [the health centre staff]. She always buys the medications to keep with her. People go to have an injection from her.… When the symptoms are severe, I go to see Nan at the health centre. I can walk there. If my pain is very severe, I cannot get up and go to the health centre. When I feel like I am starting to have severe pain, I hurry to go [to the health centre before my pain becomes more severe]. After she give me an injection, I feel better in a very short period of time.
>
> (I: 18)

However, others who did not have close relationships with their health personnel complained about having only short consultation periods with their physicians. Some reported that the personnel seemed to be friendly to them and had very detailed information about their activities related to pain, but the information provided was not ‘consistent’ with their situation nor could they negotiate for the treatments for their chronic pain.

> When I feel extreme pain, I go to the health centre … I met the male staff member at the health centre. I told him, “Could you give me an injection? I have extreme pain.” He replied, “Would you like to have an injection? Just take some oral medication; I will give some to you.
>
> (I: 5)

Some articulated that their relationships with the personnel were not good because they had to consult a different person every time they visited for treatment of the same problem.

> They gave me appointments for many doctors. I never see the same doctor for any day of appointment. One appointment for one doctor; other appointments for other doctors, a different doctor came to visit me.
>
> (I: 7)

7.6 SUMMARY

In this chapter, an analysis and discussion of the contextual determinants that influenced elderly participants’ self-management of chronic pain were presented. Four key determinants simultaneously promoted and hindered the ways participants managed their pain: *living in rural isolation, living in poverty, availability of support,* and *the quality of relationships with practitioners.* Living a considerable distance from the district and provincial capitals, together with their impoverishment, contributed to difficulty in self-managing chronic pain, whereas a great deal of support could help their management. However, support was not available for all participants or all the time. Those who had a good relationship with practitioners found it less difficult to self-manage their chronic pain. In the three following chapters, the three categories ─ *making sense of pain, seeking the most suitable treatment,* and *integrating treatment into everyday life* ─ will be presented.

CHAPTER EIGHT

MAKING SENSE OF PAIN

8.1 INTRODUCTION

The findings of the present study are provided in seven chapters. An overview of the findings, Basic Social Psychological Problem, and contextual determinants were presented in Chapters Five, Six, and Seven respectively. In this chapter, the first category, *making sense of pain*, which explicates the way elderly participants living in rural villages in north-east Thailand attempted to understand their chronic pain, is presented. *Making sense of pain* refers to the strategies they used to comprehend their chronic pain. Through this process they tried to clarify everything about their symptoms. The process gave them some information about and guidance on how to manage the condition. It commences with a discussion of the contextual influences that affected the way they made sense of their pain. It is followed by an examination of the strategies they used to attempt to understand their symptoms.

8.2 CONTEXT

Once elderly people experienced chronic pain, they responded to this situation in various ways. Some concentrated on their individual pain and tried to comprehend their situation, whereas others paid more attention to completing other non-pain related activities in their lives. The way they made sense of their pain was influenced by two contextual themes: *pain experience* and *personal life philosophy*.

8.2.1 Pain experience

The pain experience of elderly people influenced how much attention they paid to their pain. This experience included characteristics and effects of the pain.

8.2.1.1 Pain characteristics

The characteristics of the pain that affected the way elderly people made sense of their pain included severity, persistence, and duration of pain. All had localised pain[85] and their pain severity ranged from minimal to severe, with most experiencing moderate

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[85] See Section 4.6.3 ‘Nature of pain,’ Chapter Four ‘Methods of data collection,’ for more information.

pain (an average pain score of 6.3[86]). Some suffered pain all the time, whereas others experienced it from time to time. For those who had intermittent pain, most reported that they still experienced pain frequently (Table 8.1).[87] The duration of chronic pain ranged from thirty years to six months, with an average of seven years.

Table 8.1 Pain experience

Type	Localised pain	Generalised pain		
	32	0		
Frequency	Very often/all the time	Often	Sometimes	Rarely
	14	17	1	0
Severity	Minimum	Maximum	Average	Median/mode
	1	10	6.3	6/10
Duration	Minimum	Maximum	Average	
	6 months	30 years	7 years	

Most who suffered persistent or severe pain expended much effort on making sense of it, while those with intermittent or less severe pain expended less effort exploring their symptoms. Those with a longer duration had a greater understanding of their chronic pain compared to those who had it for a shorter period of time.

> It's numbness; it's difficulty. The pain disappears only when I sleep. The pain comes again as soon as I awake. It's hot-burning. The pain is not severe. I always have a sense of pain, [and I] never forget [that I have pain]. I still feel hot-burning … on this side, in my left leg. My right leg doesn't feel as painful as the left. But in the left leg, I never forget the pain .... This is the fifth year of my pain; [it has] never gone. [I] still feel pain whatever I do, such as eating or drinking water.
>
> (I: 1)

On the other hand, those who suffered intermittent pain and for a shorter period expressed less understanding of their symptoms. Most explained that the pain occurred randomly and unpredictably.

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[86] All elderly participants were asked to rate their pain intensity from 0 (representing no pain at all) to 10 (indicating the worst pain imaginable), based on the Numeric Rating Scale (NRS) (Bruckenthal & M., 2007; Flaherty, 2008). See Chapter Four 'Methods of data collection,' for more information.

[87] All elderly participants were asked to rate how often they felt pain from a choice of four items: all the time or very often, often, some of the time, and rarely. See Appendix 3 Socio-demographic questionnaires for more details.

> When I sit, I feel like something is moving in my leg. I feel numbness and a gnawing pain …. The pain comes sometimes. It looks like I pretend to have pain [my pain sensation occurs unpredictably. It makes me worry that people will think I do not really feel pain but am pretending for some reason, such as seeking attention from others].
>
> (I: 4)

8.2.1.2 Effects of pain

Another consideration was the effect the pain had on their lives. Most pointed out that it affected them physically, psychologically, socially, and spiritually.[88]

Physical effects

When referring to the effects of their chronic pain, the most common physical effect was 'Lambaak' (which means it was physically difficult to live with), reduced comfort, decreased ability to work, greater dependence on others, and increased sleep disturbance. Most reported that their lives had become very difficult as a result of the pain.

> Yes, I cannot work. I work for a little, and then I feel pain. When I bend down, and then straighten up, I feel pain. [I feel pain] every time I bend down. I cannot bend down to wash some clothes. When I bend down and straighten up, then I cannot walk. I feel tense in my legs and it is difficult to walk. I cannot work. I have to sit down like this most of the time. I cannot walk smoothly. I am in difficulty so much.
>
> (I: 10)

Some expressed a strong desire for greater comfort and felt that there was no such thing as comfort at all because the pain made them uncomfortable all the time. "It's always painful. It makes me wonder where the feeling of being comfortable can be. Does the feeling of being comfortable really exist, even a little bit?" (I: 1).

Several indicated that after experiencing chronic pain they could not carry out their domestic, farming and other work as before. Prior to having chronic pain, some used to earn money by finding food in the paddy fields or forests and then walking around

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[88] Spiritual effects of pain refer to its impact on elderly people's beliefs and values that primarily were developed from their religions. See Section 7.4 'Availability of Support,' Chapter Seven 'Contextual Determinants,' for more information.

the village selling it to other villagers, while others used to be responsible for preparing food at homes and then delivering it to families who were working in the paddy fields. However, after suffering the pain they could no longer do this type of work.

> Previously, I often went to the southern part of the village. I took something to sell there very often. When I had small frogs, I took them there to sell. This year, I could not go. [Now I can only] stay at home .... I have got the pain which prevents me from working and earning some money.
>
> (I: 5)

Some reported that they had become more dependent on others to carry out their Activities of Daily Living (ADLs),[89] such as moving, bathing and/or toileting, after experiencing chronic pain. Others who were independent in their ADLs indicated that they relied on others to meet their Instrumental Activities of Daily Living (IADLs).[90] They required assistance to prepare meals, do their laundry and other housework, prepare their pain remedies, accompany them to travel around the village or to other places, and were dependent on their family for money. “When I want to go [get around the village], I have to be accompanied by somebody so that I am able to go” (I: 5).

Sleep disturbance was another physical effect of chronic pain. Some stated it caused them to be unable to sleep at home. Others had pain problems when they were at the temple practising Dharma. “While I stayed at the temple to practise Dharma .... I lay down and sat up repeatedly .... I felt pain very much, and I could not sleep” (I: 7).

Psychological Effects

‘Tor-ra-maan,’ meaning torment or long suffering, was the main psychological effect of pain mentioned by the elderly people. “I have had the pain for a long time, 9–10 years already. I have been tortured by this condition for years” (I: 10).

Other mental effects reported included disappointment, hopelessness, mood change, fear of moving, feeling unsure, worrying about illness progression, and feeling their life was being threatened. Several indicated that they felt disappointed because of their

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[89] Activities of Daily Living refers to the activities that individuals usually perform in the course of their normal daily life, such as moving, eating, toileting, dressing, or bathing (Harris, Nagy, & Vardaxis, 2009).

[90] Instrumental Activities of Daily Living refers to activities which are more complex than activities of daily living commonly carried out by individuals living in community settings, such as meal preparation, housework, shopping, and travelling away from home (Harris et al., 2009; Stedman, 2005).

chronic pain. They wished they could do something, such as getting around unaided, but could not do these activities any more. Others reported experiencing a range of negative emotions frequently, including sadness, agitation, irritation, anger, and hopelessness.

> If sometimes the pain had gone, I would have been patient to fight [persistent pain makes me feel hopeless] … When we feel pain, we feel sad ... It makes my mind not peaceful ... Sometimes I worry ... Some days I feel irritated and angry with my pain ... I feel unhappy ... For me, I have no hope that I can go anywhere in my life. I will die like this.
>
> (I: 1)

Several indicated that their mood had deteriorated progressively since suffering chronic pain. Some stated that they were now more sensitive and became angry more easily than before. “[My mind] is not the same as before [I got the pain]. I feel irritated. I become moody easily …. My time of dying is nearly here” (I: 7).

Most mentioned their readiness to die as a consequence of having chronic pain. Some pointed out that death was an easier alternative and they feared the pain more than dying. Others indicated their pain happened suddenly without warning. It made them think that their life could end anytime, without warning. “When it [the pain] happens, it happens instantly. If I will die, I will die quickly” (I: 4).

Feeling unsure and worrying about their illness progressing were also psychological effects of their chronic pain. Some, especially those who had intermittent pain, expressed uncertainty about their future. Others who suffered constant pain indicated that they were worried that the underlying cause would lead to further deterioration and more disability. Most reported that they felt insecure about moving, getting around, or travelling long distances. “I fear walking; I am afraid that I will fall [if I walk]” (I: 1).

Social and Spiritual Effects

Being unable to join in social and/or religious activities and visit ‘relatives’ were the most common social and spiritual consequences of chronic pain that were observed and reported. Some stated that their pain forced them to sit in a particular position, such as extending their legs, which was considered offensive culturally when seated with other people or joining in religious activities.[91] As a consequence, they felt embarrassed and avoided joining in social and religious activities with others.

> I worry about going to other places. It is difficult. When I join social activities and sit with other people, they sit normally but I sit and extend my legs. I feel uncomfortable too. I feel shame in front of other people. My legs are not normal.
>
> (I: 23)

Some who could not get around independently were unable to visit 'relatives,' which adversely affected their relationships.

> I cannot go to visit them [my 'relatives' who do not live with me]. If they have to come to visit me too often, it will interrupt their work. Before this, I [could] go to visit them when I missed them …. But now, I cannot go to visit them; only wait for them to visit me. They cannot come too often because they are also busy with their work.
>
> (I: 1)

8.2.2 Personal life philosophy

Elderly people's personal life philosophy also affected the ways they made sense of their chronic pain. This belief, which influenced their attitudes towards pain, was about how long they wished to live. Some wished to have a long life so they could be with their families for a long time. Others were concerned less about how long they had to live; instead they stated their readiness to die because they were not worried unduly about their offspring. These beliefs influenced the attention they paid to understanding their pain. Those who expressed a desire to live longer tried harder to make sense of their pain, and often offered more detailed explanations of it.

> I said to the health care staff who gave me the medications, "Let me live for 10 years more," … When I have much pain, my joints are swollen …. When I have a lot of pain, I have knotty bones all over my body [I feel many small knots around the bones all over my body] …. When I touch the swollen parts, I feel like I am touching a shell attached to a stick. The swollen parts are in an upward direction along the 'line' [nerve], the knotty parts are seen clearly, for this 'line,' the swelling is up to this part and this part [Both my legs are swollen at the lateral parts

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[91] Thais consider that the foot is the lowest part and the head the highest part of the body. Their legs should not be extended and pointed at other people. When individuals are sitting on the floor, their legs should always be folded under the body, especially while sitting in front of seniors, monks, or images of Buddha (Cornwel-Smith & Goss, 2005; Hoare, 2004).

> from my feet to my waists, and when I palpate my legs I can easily feel many small knots along the lateral sides of my legs].
>
> (I: 27)

In contrast, others were less concerned about how long they would live. They were preoccupied less about their illnesses, including pain, and made less effort to understand it. Some viewed this as living for the moment.

> If something severe happens to me and threatens my life [including the cause of my chronic pain], I will let myself die. All my children have grown up already and have their own families. I have stopped worrying about myself. Let’s say I have already made up my mind. It doesn’t matter if I am alive or dead …. I don’t know why I should go to see the doctor [I don’t think it is necessary to seek diagnosis and treatment for my pain]. When they [my children] ask [me if I want to go to see the doctor], I tell them that I do not have a severe condition [pain].
>
> (I: 14)

8.3 STRATEGIES

The initial reaction of most elderly people was to try to make sense of their pain. They used three strategies to comprehend their pain: identifying pain-related influences, asking questions, and making causal assumptions and predicting prognosis.

8.3.1 Identifying pain related influences

In attempting to make sense of their chronic pain, they identified several influences associated with their symptoms, including precipitating factors that stimulated pain (in remission) to reoccur, intensifying influences that caused a mild degree of pain to be more severe, and alleviating factors that helped reduce the severity of their pain.

Precipitating factors that stimulated the pain

They reported that intermittent pain reoccurred while doing or following certain activities, such as moving their bodies into distorted positions, doing physical work, and carrying heavy things in a particular manner.

> After I work hard, the pain comes again …. While I am walking, if I turn my body in the wrong position, then it [the pain] happens. When the bones crash together then they split apart [after I feel the bones hit other bones inside my body, I feel like all affected bones are smashed into many small pieces]. My legs feel split too …. When my knees crash [against each other], I feel pain a lot …. When the knee

> joints crash, the pain moves quickly along this 'line' [nerve extending from my legs to my waist]. When the knee joints do not crash, I feel no pain.
>
> (I: 29)

They reported that several warning signs and co-existing symptoms were associated with their chronic pain. They noticed particular sounds prior to the onset of the pain.

> Something ran very fast in this part [I felt that something inside my body hit my hip quickly] and made a sound, 'Puad' [before I had this pain] … I feel pain since there was the sound 'Puad' in my bone while I was pulling a bag of rice bran from there to the pigsty.
>
> (I: 29)

Several noticed some swollen parts just before they felt pain. "They [the joints of my legs] are swollen when I started having pain …. When they [the joints of my legs] are swollen, the pain just comes suddenly" (I: 14).

Intensifying factors that increased pain severity

Some stated that their pain severity was mild or moderate. However, several factors contributed to increasing their pain severity, including doing activities such as housework or working to earn money; walking, especially long distances; being in a particular position, such as sitting cross legged[92] or sitting with their legs folded back to one side;[93] and consuming certain kinds of foods.

> When I walk for a long time, my legs cannot feel anything. One of my sandals drops off my foot, but I do not realise this [because my foot is numb]. I have lost many single sandals because of this.
>
> (I: 5)

Foods that commonly intensified their pain were bamboo shoots, fermented noodles, and pickled foods. Whilst they could not explain why eating these foods increased the severity of their pain, they claimed frequently that their pain increased in severity immediately after consuming these products. A study by Aree, Tanphichitr, Suttharangsri and Kavanagh (2004) reported that northern Thai elderly people accumulated beliefs about food taboos from their own experiences and through story-telling that had been passed down from their ancestors. This included the belief that

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[92] Sitting cross legged is a common position Buddhists adopt when meditating on the floor (Keown & Prebish, 2007; Masyk-Jackson, 2009).

[93] In Thai culture, sitting with legs folded to one side is regarded as a polite sitting position in front of images of Buddha, monks or seniors (Cornwel-Smith & Goss, 2005; Hoare, 2004).

bamboo shoot consumption could cause knee pain (Aree et al., 2004). Some literature reports that bamboo shoots are regarded commonly as an unhealthy food for Thai elderly (Meesarp, 2009). This may be attributable to a high prevalence of gouty arthritis[94] among elderly people (Saag & Choi, 2006; Singh & Torralba, 2008). Individuals suffering this condition are encouraged to have a low purine diet, meaning they should avoid eating foods containing large amounts of purines, such as bamboo shoots (Goutpal.com, 2009; Joint Care Organization, 2009a; Smith & Smith Enterprises, 2010). In addition, there is a high prevalence of peptic ulcer in north-east Thai elderly (Ageing Thai Organization, 2006), and fermented foods, such as pickled vegetables and fermented noodles, may have acid inducing properties that can exacerbate pain (Premgamone, Maskasem, Thamrongwarangoon, & Ussavaphark, 2010). It is also claimed that some Thais with rheumatoid arthritis feel more pain after consuming fermented noodles, but the mechanism for this pain intensification is unclear (Thai Rheumatism Association, 2010). "I have abdominal pain right away after I eat 'Khalum food,'[95] such as fermented bamboo shoots, fermented rice noodle, [and] fermented food" (I: 18).

Alleviating factors that decreased pain severity

Factors observed and identified by elderly people that decreased the severity of the pain included stopping physical activities, being in particular positions, and having a massage. Many reported that the severity of their chronic pain was reduced when they stopped doing many activities, including housework, and working to earn money. When they rested, their pain was reduced. "When I just sit down and do nothing, I can tolerate the pain" (I: 10).

Several pointed out that adjusting their posture helped relieve some of the pain and enabled them to continue or complete the activities they were doing. Most perceived that postural adjustment minimised their chronic pain, including raising their legs and extending their knees. Some indicated that when the pain increased gradually while

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[94] Gouty arthritis is related to a defect in uric acid metabolism, with an increase in production or a decrease in excretion of uric acid. The defect leads to an increase in blood uric acid levels, which in turn contributes to the deposit of intra-articular crystals. These cause individuals to have a sudden onset of pain and swelling of joints (Harris, 2009; Joint Care Organization, 2009b).

[95] 'Khalum' is a common north-east Thai dialect term, referring to something that should not be done by people such as doing some activities or eating certain foods (Sasen & Krongkaew, 2004).

walking, adjusting the position of their legs helped relieve the pain and enabled them to continue walking.

> When I walk, I bend my body down intermittently … When I walk for a distance from here to Ray's house [around 500 metres], I have to bend my body down again to pull up my big toe … I use this side of my hand to touch this part [uses her left hand to touch her right big toe]. After I bend my body down to pull up my big toe and stretch to a normal position, then I can walk normally. After I walk for some distance, I feel stiffness again.
>
> (I: 30)

Others reported that if they lay down on a bed in the same manner as they did prior to suffering the pain, they would feel much pain. Changing position in a particular way, step-by-step, enabled them to lie down with less pain.

> When I [want to] lie down, first, I have to lie down on my side for 15 minutes before I can change to another position …. My vertebra is curved. I have to be in that position for 15 minutes before I am able to lie down on my back. The mattress is very soft but I cannot lie down on my back easily. I have to flex my body, and then extend one side of my legs. After that I extend the other side of my legs … and then put one side of my legs on the knee of the other side. I do this to make my vertebra equal, and then I can lie down on my back.
>
> (I: 16)

Many claimed that their pain was reduced when they gave themselves a massage. Some reported that they self-massaged with their hands without using anything or applying any treatment. Others stated that they massaged themselves while applying treatments, especially a herbal balm. Most indicated that they always had a particular balm at their bedside so that they could apply it and massage themselves to facilitate sleep, before bedtime or when they awoke as a result of pain. Some also had the balm nearby to apply when massaging themselves during the day. Sometimes, they also adapted furniture, such as their beds, to assist massaging. They did this by pressing the body parts in which they felt pain onto the hard part of the bed, and this helped, in part, to relieve their pain.

> I only massage myself to relieve pain. When I feel pain a lot, I apply the [herbal] balm and then massage. I just sit down and massage myself for a long time. I feel better to some extent [after having a massage]. It is slightly better than not having a massage at all.
>
> (I: 10)

8.3.2 Asking questions

The strategy *asking questions* was used by elderly people to make sense of their chronic pain. They sought answers to questions about their pain. They were curious to know what caused it, which approaches helped to relieve it and eliminated the cause, if the cause could be removed completely, and if the cause was life threatening. They were also curious to know why the pain occurred, which part of their body had defects and caused them pain, what kind of abnormality/ies they had, and what was the next stage of their illness.

> I ask myself, "Which point [part] of my body [is wrong]? Where is the [defect in the] tendon?[96] Or what's wrong? I wonder which point of my body is wrong. Why does this thing happen? [Why do I have this pain?] Why does it cause me trouble? … [Why do I have] pain all the time? [Why do I feel] hot-burning all the time? ... Why does the pain happen to me?"
>
> (I: 1)

They asked themselves questions about how to respond to their pain, such as whether they should go to see a doctor and have pain relieving injections, and how they could receive effective treatment that might help relieve their pain and eliminate the cause. "I lie down and think, "Where can I find the effective treatment? How can I get medications that can cure my waist pain?" (I: 10).

They wondered about the persistence of pain and the underlying illness that caused it. They asked if the pain could be relieved temporarily or permanently, and if they could have comfort without it for a period of time.

> I will ask if I can recover. If the answer is, 'Yes, you can recover,' I will ask if it is absolute recovery. Please tell me if my illness can be cured. Please tell me if the symptoms can only be reduced but cannot be cured completely.
>
> (I: 16)

Several were concerned that the cause of their pain might be harmful and life threatening. They questioned whether they would die shortly because of the illness that caused the pain. "Why do I have pain so much? Will I die [soon]?" (I: 11).

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[96] Most elderly people in the study believed that illnesses affecting body sensory and motor movement were related to a defect in the 'line' (nerve) and/or tendon.

Apart from questioning themselves, some asked questions of others, in particular family members, ‘relatives’ and neighbours. Questions were primarily about the cause of their pain.

> I said to my neighbour, “Koran, what’s wrong with me? Why do I have so much pain?” I met Miss Kate, Miss Kaye, and Miss Tout one day. I asked them, “Why do I have so much pain in my waist and my legs?
>
> (I: 10)

8.3.3 Making causal assumptions and predicting prognosis

Elderly people also use the strategy, *making causal assumptions and predicting prognosis*, to comprehend their chronic pain by making comparisons with others and reflecting on the past. First, elderly people compared their pain with other people’s pain to hypothesise their pain’s underlying cause and prognosis. Many compared their pain characteristics with their neighbours or family members. Second, they reflected on their past to consider what might have caused their pain, which in turn guided them to predict their pain prognosis. “My father was dead. What was his illness? He suffered a hereditary disease. He had leg pain. Seeing him suffer from the illness, I prayed that I would not have it. And I have it now” (I: 10).

After their chronic pain commenced, elderly people made assumptions about possible causes. They compared their pain with other people’s pain to hypothesise their prognosis or assess its impact on their life. Most related their pain characteristics, in particular its location, to their neighbours’ or other family members’ pain. Some compared their abnormal appearance and functional limitations with those of their neighbours.’

> Miss Kane’s [condition] is better than me [mine]. She is a hunchback [her spine is curved], but she can walk actively and rapidly [but I can only walk slowly within a short distance].
>
> (I: 10)

The causal assumptions they presumed from making comparisons with others were related primarily to the ageing process, cancer, and heredity. Most linked their pain to their fellow villagers and, together with information from others, they assumed that their pain was caused by their advanced age.

> People say that it [my pain] is related to being elderly ... When people get old, the joints are defective. They [joint pain and being elderly] are together for a long time. When we are old [the pain comes].” They [the pain, the joint defect, and being elderly] come together …. I told my children when they came [to visit me], and they said, “Mum, it is normal … You are at this age and it is normal for you to have pain.”
>
> (I: 12)

Some reported that their neighbours had the same pain location as they did and the neighbours had died because of cancer. This made them assume that their pain might be cancer related.

> Mr. Saran has already passed away. Before he died, he had the same condition as me. I have got the pain like him, and I think of him … he had the pain from his leg to his waist [which was similar to my pain] … he was sick for a very long time, and cancer made him die.
>
> (I: 4)

Several compared their pain to other family members with similar ailments and assumed that it was attributable to inherited health problems. Some indicated that their parents and siblings suffered the same type of pain.

> I will tell you my story. It [the pain] might be because of heredity. My mother had to stay home for many years [because of pain]. My younger brother cannot walk normally, Mr. Ping … Yen’s father [my brother] also has a leg disease … When he walks, he walks abnormally because he cannot raise his legs normally. Another one of my siblings, Mr. Kane, cannot go for a walk. He is bedridden now. He cannot walk. He’s got leg pain, too.
>
> (I: 5)

In addition to comparing their pain with others, they also reflected on their past. Many thought about situations or events in their life prior to the onset of pain, primarily to provide causal assumptions for their pain. Most reflected on their earlier lives, especially about doing heavy physical work or a particular job. Many assumed that this type of work had contributed to their present chronic pain. Some recalled and assumed that particular actions had brought them chronic pain.

> I have had it [the pain] for a long time already. It started happening when I went to cut grass using a scythe on the earthen dyke. I placed my legs on the bottom of the paddy field. I knelt on the upper pathway, then I felt [heard] a sound ‘Kued’ but I did not pay attention to it …. as I did not have a lot of pain. I slowly started having

> severe pain. Now, when I walk to the grocery shop [around 500 metres], I feel pain a lot.
>
> (I: 30)

Other assumptions about causality were mostly related to 'Pradong.'[97]

> I felt pain a lot. I think the medication [the bird's nest] might be 'Khalum'[98] food for my Pradong. But I also have Pradong. When I touch [or eat] something [that is] 'Khalum,' I will feel pain in my waist and hip.
>
> (I: 28)

After making causal assumptions, the elderly people predicted prognosis about their pain. Predicting prognosis was based on their opinions accumulated from life experiences and opinions of others, especially family members, 'relatives,' and neighbours. As the prediction was based on assumptions about the cause of their chronic pain, which was mainly incurable ('Pradong,' heredity, old age, or cancer), their perceived prognosis was mostly unfavourable, such as the pain being incurable or life threatening. Some reported that their pain was caused by an illness based on traditional beliefs, which could not be cured. "It ['Pradong,' which causes my pain] cannot be cured. It ['Pradong'] is as big as a buffalo [the cause of my pain is large]" (I: 27).

Elderly people related an advanced age to pain prognosis in two ways. First, they considered that human life had a fixed end-date and old age was close to this end-date. Their pain was a reminder for being close to their end of life; therefore, the pain and its underlying cause were incurable.

> People say that my illness cannot be cured. I am listening to what people say. "It cannot be recovered totally. We are in this old age … [I am in the age of] a tree near the river bank [which can fall over any time]. Death is coming to me soon … My time of dying is nearly come.
>
> (I: 7)

In addition, several predicted that they would only live for a short time because their advanced age caused their pain.

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[97] 'Pradong' is a disease appearing in popular belief, whose symptoms are wide ranging, the most common of which is muscular pain (Sringernyuang, 2000).

[98] 'Khalum' is a common north-east Thai dialect term referring to something that should not be done by people, such as doing some activities or eating certain foods (Sasen & Krongkaew, 2004).

> Yes, I have the symptom … I don’t feel so much pain in my waist … But I don’t know why [this thing happened to me]. It may be because I am already old. I think it is possible for me to die this year.
>
> (I: 24)

Second, they considered that ageing made it less likely for them to recover from illness. They explained that being at an older age exacerbated the underlying cause of pain and contributed to a bad prognosis, “I also get older. I still have the illness, and get older at the same time. The illness might gradually get worse, I think” (I: 1).

8.4 SUMMARY

In this chapter, the first category *making sense of pain*, which was underpinned by two themes: pain experience and personal life philosophy, was presented. Elderly people whose pain was permanent, severe, and of long duration had a greater understanding of their symptoms than those whose pain was intermittent, mild and of short duration. The way they made sense of their pain was also underpinned by the effect of the pain on their lives, physically, psychologically, socially, and spiritually. In addition, for some, a desire for longer life motivated them to try to make sense of their pain, whereas, for others, a lack of desire for a longer life prevented them from seeking further understanding of pain.

Three strategies utilised by elderly people to attempt to understand their pain were: *identifying pain-related influences*, *asking questions*, and *making causal assumptions and predicting prognosis*. They identified influences that stimulated, intensified, and alleviated their pain and signs and symptoms that occurred before or together with the pain. They asked questions of themselves and others in order to make sense of their symptoms. They made causal assumptions about their pain by reflecting on their past life and comparing their symptoms with others who experienced pain such as family members, ‘relatives,’ and neighbours. Moreover, predicting the pain prognosis was also a strategy they used to make sense of their chronic pain. The second category, *seeking the most suitable treatment,* will be discussed in the next chapter.

CHAPTER NINE

SEEKING THE MOST SUITABLE TREATMENT

9.1 INTRODUCTION

The findings of the study are presented in seven chapters, and the first category was outlined in the previous chapter. In this chapter, the second category, *seeking the most suitable treatment*, is discussed. This category involves elderly people exploring various ways to self-manage their chronic pain, examining and obtaining resources required to gain access to methods of treatment of their pain, utilising their chosen treatments, assessing whether or not the adopted treatments suited their current situation, and evaluating the practitioners who administered the particular treatments. It commences with a discussion of the context of the category, and is followed by an examination of the strategies used by elderly people to seek the most suitable methods to self-manage their pain.

9.2 CONTEXT

Elderly people responded to their chronic pain in a variety of ways. The strategies to seek the most suitable treatment for self-management of chronic pain were underpinned by six contextual themes: priority given to pain; information and resource seeking skills; reflective thinking skills; access to pain-related information; access to pain relief treatment; and satisfaction with, and preferences for, practitioners and treatments.

9.2.1 Priority given to chronic pain

Some elderly people concentrated mainly on their pain, while others placed greater emphasis on attending to other matters in their lives. Those who placed a higher priority on dealing with their symptoms responded immediately after they experienced the pain. They did their best to find information and resources for the most effective ways to self-manage their pain. For example, one elderly woman attended promptly to her pain by asking her children to take her to see the doctor in the early morning, just after she woke up with pain. Its onset was sudden compared with her feeling of wellness before going to bed the previous night.

> I went to bed at night [I felt well]. When I woke up [in early morning] …. I could not get up from my mattress …. He [my son] asked me, “What happened to you?” I told him, “I have severe pain in my waist. I cannot walk” … “Mum has waist pain. Accompany me to go to see doctor at the private clinic in Phon district.” [That morning] I went to see Doctor Channahon in Phon district.
>
> (I: 11)

In contrast, those who placed greater emphasis on attending to other issues in their lives delayed exploring methods and resources to manage their pain. For instance, one elderly woman delayed seeking treatment for her pain in order to care for her daughter, who was seriously ill and subsequently died.

> I had the symptom [pain]. One of my daughters had a serious illness during my first period of having pain … My condition has become worse and worse. After she passed away, after [I] had finished looking after her and managing her funeral ceremony, then I began to seek treatment for my own illness.
>
> (I: 2)

9.2.2 Information and resource seeking skills

Elderly people’s information and resource seeking skills were other factors that influenced their self-management of chronic pain. Those who had good skills were likely to have more information and flexible strategies for managing their chronic pain. For instance, two elderly people indicated they had good information and resource seeking skills. One reported that she had obtained accurate information about her health problem: “I asked him lots of questions … He always explained to me … I asked him many questions. When I went to [Maha] Sarakham [Province], the staff explained things to me very well” (I: 27). Another articulated that she received more convenient health service treatment after discussing difficulties in scheduling follow-up appointments with her physician. She could also continue having her preferred treatment after discussing with her husband about its benefit.

Others expressed reluctance about asking for assistance. They did not discuss their personal difficulties in managing their pain with health professionals they consulted. Some reported that they did not discuss their pain symptoms with health professionals whom they visited regularly for other health problems. They also indicated that they had no idea about what other people could do to help them with their pain.

> I do not tell them [the health care staff at the Chatu public hospital where I go regularly to have a follow-up appointment for hypertension] about my hip

> [pain] problem …. I don't know who can help me with my pain. I will live my life in this pattern [suffering pain] until I die.
>
> (I: 30)

Some stated that they wanted to have pain management support from the national and local governments, but did not know how government or health personnel could help them. "I want it [the government] to help [me], but I don't know how they can help? The government may have medications or doctors [that can help me manage my pain]" (I: 5).

9.2.3 Reflective thinking skills

Even though all participants in this study had the same level of primary school education, they managed their chronic pain differently. Some were eager to try uncritically every pain treatment that was claimed to be effective, whereas others were more cautious and asked questions before making a decision. Some explained how they examined information about recommended treatments. Retailers tried to persuade them to take particular treatments, claiming that many people had recovered from similar conditions after taking the treatments. These elderly people reflected that if there were such 'miracle' treatments, then everyone who could afford them would recover from their illness. However, they saw many people still suffering from their illness, and concluded that the retailers' claims were unreliable. As a result, they did not want to be deceived and decided not to purchase or try these treatments.

> Mr. S's wife, who lives in Chan village … She came last year and asked me, "Grandma,[99] do you want to take this herbal medication?" She said, "Many people in Chan village have recovered now" … Then I asked myself, "How good is it? If it's effective, why have many people still got the illness? If they recover from taking it, there will be many people who have recovered." I thought, "People who have more money than me will have more chance to take [this herbal medication]. Why should I let her lie to me? I have never believed [people's claims]. Why should I believe her now?"
>
> (I: 1)

Some were curious to know more about formal and informal practitioners[100] who were reported to be skilful in treating pain. They visited these practitioners and reflected on

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[99] This pronoun is used commonly to address an elderly lady, irrespective of whether or not she is a relative.

[100] Rural Thai villagers visited several practitioners to treat their illnesses, including health professionals, local practitioners, such as spirit healers or herbalists (Lyttleton, 1996); and

information gathered about the practitioners' qualifications,[101] the treatment setting, and the ways treatments were delivered. On the other hand, some reported that they tried, uncritically, almost every treatment method available that was claimed to be effective. Sometimes, they paid people who claimed to have an effective and expensive treatment, even though they had only limited information about the product.

> I went for treatment everywhere, both to traditional therapists and private clinics …. There are many famous places where people guarantee effective treatment. They say many people go there and recover …. I went to see the quacks. Many people went to see them. Some people said that they recovered because of the quack doctors. I went to see the new quacks all the time. The quacks that I had seen already, I did not go to again [because their treatment did not work for me] …. San took my money, 1,800 baht. He said that the price was more than 3,000 baht …. He told me that the medication was effective. I wanted to take effective medication; I wanted to recover, so I gave him the money. I haven't received the medication at all [and I know very little about this medication].
>
> (I: 10)

9.2.4 Access to pain-related information

Access to pain-related information influenced the way elderly participants self-managed their chronic pain. The primary sources of information were lay people in their villages, some healers and retailers of treatments from other places, radio programmes, and health care providers. The participants had less access to pain-related information from health personnel than from non-health personnel.

9.2.4.1 Access to pain-related information from health personnel

Health personnel at public and private institutions, such as health centres, district hospitals, provincial hospitals, university hospitals, private clinics and private hospitals were potential sources of information for elderly people. These personnel included health centre staff, nurses, doctors, and pharmacists. "When I went to see Doctor Praveen to discuss the operation, he told me, 'There are many people [who have taken the black and red herbal tablet] who have died already'" (I: 27). "Whatever is good, the health care staff recommended to me" (I: 30).

"injectionists" or "injection doctors," referring to lay, unlicensed practitioners who gave injections to treat people (Cunningham, 1970; Staa & Hardon, 1996; WHO, 1994).

[101] According to the Thai Hospital Law 1998, health agencies are required to provide public information about their health practitioners, including their licenses to practice (Ministry of Public Health Thailand, 1998).

Possible methods of obtaining pain-related information from health personnel included listening to suggestions while having consultations, and indirectly from other sources such as the mass media. However, there was limited access to information from health personnel due to short consultation times, compounded by inadequate access to other kinds of information from health personnel. The limited health care services for participants not only influenced their opportunities to receive therapeutic procedures for their chronic pain, but also their chances of obtaining accurate pain-related information from health personnel. This made them uncertain about the cause of, and ways to relieve, their pain. “They [the doctors] did not tell me [what my illness was] …. He did not tell [me what I should do to reduce my symptoms]. He just told me to see him regularly” (I: 5).

Another possible source of pain-related health information provided by health personnel was the mass media, in particular published, electronic, and broadcast media. However, the participants lived in rural areas, had low incomes, and only primary school education, which limited their access to published media. A Thai national survey revealed that elderly people who lived in rural areas read less than those who lived in cities (National Commission on the Elderly, 2007). Several studies have also indicated that a lower educational level is associated with poorer reading skills and negative attitudes towards reading (Carsello & Creasor, 1982). Visual problems are common among elderly people (Kespichayawattana & Jitapunkul, 2009) and have a negative effect on reading and writing skills (Backman, 2002). As a result, the study participants was less likely to purchase or read published materials. For instance, only one reported reading pain-related health information. Observation by the researcher also revealed that while public hospitals, private hospitals, and pharmacies provided some booklets or pamphlets about pain, none of the participants reported having read these printed materials.

The electronic media provided some pain-related information, but this source was not accessible for the study participants. A Thai study reported that a very low proportion of older people accessed the Internet: only 0.5% in the whole country, and 0.1% in the north-east region had access to the Internet in 2005 (National Commission on the Elderly, 2007). In the present study, none of the participants had access to the Internet or knew how to use it, even though numerous health education websites had been set up by health institutions throughout the country.

Compared to published and electronic media, broadcast media was more accessible to elderly people with low incomes and educational levels. In a study conducted by Weiss, Reed and Kligman (1995) in the United States elderly people with low incomes reported that their primary source of health information was broadcast media, especially television. All participants in the present study had television in their homes but there are limited health television programmes accessible to them. None mentioned seeing any television programmes about pain-related issues presented by health organisations. Media Monitor Thailand (2008) reported that only 15 hours of health programmes were broadcast per week on free-to-air television in December 2008.[102] The programmes focused on basic knowledge about diseases, in particular symptoms, prevalence, transmission and severity (Media Monitor Thailand, 2008), but did not highlight self-care issues. Rather, they emphasised dependence on health providers, hospitals, Western-oriented medication, and supplementary products (Media Monitor Thailand, 2009a).

Radio was another key source of information for participants. A Thai study by Krutchaiyan (1986) reported that people with a primary level of education listened to radio while working. This is consistent with the present study where most participants listened to radio programmes while engaging in outdoor activities. However, none reported hearing about pain-related information presented by health personnel on the radio. Only one reported hearing an announcement by the provincial health office that the herbal pain remedy she was taking could be harmful, which resulted in her ceasing to take the herb. “People said on the radio that ‘If you take this herb, you will die from cancer. There is a large amount of toxin in this herb. Stop taking it.’ Then, we stopped taking it all over my village” (I: 7). This finding was confirmed by several Internet reports, indicating that staff of the provincial health office in particular settings warned people against taking this herb because it might be harmful (Bureau of Information, 2008; Institute of Thai Traditional Medicine, 2008c; The Information and Public Relations Office, 2006).

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[102] There are six free-to-air television channels in Thailand (Media Monitor Thailand, 2009b).

9.2.4.2 Access to pain-related information from other sources

Participants had greater access to pain-related information from non-health personnel. The information, mainly about traditional remedies, was more accessible by word-of-mouth and mass media than that from health personnel. Various sources of word-of-mouth information were used, including the participants' own family members, neighbours, 'relatives,' and retailers. These sources were located in the study villages, nearby villages, or at a distance from the participants' villages. Family members were the first sources of information. Most married participants obtained information about treatments primarily from their spouses, children and grandchildren, whereas those without offspring received information mainly from siblings, nephews, nieces, and cousins. For example, one widow indicated that her late husband had suggested that drinking a small amount of alcohol could help relieve the pain, so she had drunk it since then: "My husband said that drinking alcohol could get rid of my pain …. Twenty baht's worth of alcohol, I drink four times a day and I can then tolerate the pain for the whole day]" (I: 21).

All had obtained information about pain management from neighbours, 'relatives' in the community, and other 'relatives' who lived far away. They also received information from healers and retailers of herbal and other treatments who came to villages to advertise and sell their products.

> Many people come straight to me, including people who come to sell medications … They carry their bag of medication on one side of their shoulders and come straight to me …. I am very famous in that I have pain [many people know that I have pain] … The products that they offer to sell me include boiled herbs[103] from Chonabot district and liquid medicine.
>
> (I: 19)

Some traders arranged transportation for the participants to pre-arranged locations to listen to information about their remedies, which they claimed were effective in relieving pain and were recommended to the participants.

> Yes, it was Lingzhi[104] … The company [staff] … came [to the village] to train [advertise their product to] people [for a long time] until late evening … Tee ...

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[103] People in the study setting commonly call a herb that is taken after boiling for a period of time as 'a boiled herb' or in the Thai word, 'Ya Tom.'

[104] Lingzhi is a Chinese medicine mushroom with the scientific name of *Ganoderma lucidum* (Wasser, 2005). It is claimed to have many medicinal effects, including analgesia (Minghua, Chung, Xiang,

> came to sell me [Lingzhi] and asked me to go. He gave me a lift to the district organisation administration office [where people came to give information about Lingzhi].
>
> (I: 5)

The information was distributed in ways that related closely to the participants' usual activities at many different times. In other words, distribution of information occurred during almost every activity of daily life of the elderly people, such as buying food at markets, and working in paddy fields. Unlike that from health personnel, information from non-health personnel was not restricted to normal office hours. Most participants indicated they received information about remedies for pain relief at home or while engaged in daily activities in places such as at their local temples. "Then, there are lots of people who come to give me suggestions from many villages … They used to come every three or four days" (I: 1).

> While I stayed at the temple to practice Dharma ... Wi asked me, "What's happening to you grandma?" I told her that I felt pain very much, and I could not sleep. She gave me the balm and said, "Let's try this balm" … "Who wants to buy this balm? Have a look at its brand," she said [to me and others at the temple].
>
> (I: 7)

Similar to the access to pain-related information from health personnel, another possible means for obtaining this information provided by non-health personnel was mass media. Much published and electronic media distributed information on various pain-related health issues, in particular the high risk to health of particular herbal tablets and sets of medications ('Ya Chud')[105] containing steroids.[106] The information suggested people should avoid taking these kinds of remedies (ASTV Manager Online Thailand, 2009; Thai Health Promotion Foundation, 2008). However, due to insufficient income, low education levels, and the rural place of living, published and electronic media were inaccessible to participants. During the study period, some took

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Yongsheng, & Mori, 2008), immune modulator, and a general tonic (AlternativeComplete.com, 2008; Wachtel-Galor, Tomlinson, & Benzie, 2004).

[105] Over-the-counter medications are known as '*Ya Chud*,' which means a 'set of (Western-oriented) medication,' comprising different tablets or capsules packed as a set in a small transparent plastic container (Sringernyuang, 2000). In the present study, several participants reported that they purchased these medications from grocery shops in the villages, districts, or directly from retailers.

[106] A group of Western-oriented medicines that contain corticosteroids, which are hormones from adrenal glands. These medicines are used to relieve inflammation but have many side effects when misused (Webster's New World Medical Dictionary, 2004).

harmful remedies, which they claimed were more effective in relieving their chronic pain than physicians' prescriptions.

Radio programmes were the main mass media sources for pain-related information from non-health personnel. Most listened to radio programmes while engaging in outdoor activities. Information distributed to them was mainly in the form of advertisements or promotion of particular remedies. These were mostly traditional remedies, especially several manufactured herbal juice products that were advertised frequently. Several participants from all three study villages spoke about the types of traditional remedies advertised on radio programmes and reported that they were interested in taking them. "The radio programme on BP radio station … The fruit juice … can get rid of leg pain. There is an advertisement everyday around 5 am" (I: 17).

This frequent radio advertising led to a high likelihood of people gaining access to the information. The student researcher also heard the advertisement on several occasions, as documented in her field notes.

> I listened to the radio this afternoon. It was a music programme but many people from many provinces phoned in to this live radio programme. They claimed how wonderful the advertised fruit juice was. They claimed it relieved pain that they had been suffering for a long time.
>
> (Field notes 33)

Overall, helpful information from published and electronic media was not accessible to participants, while word-of-mouth and radio programmes were the main sources of pain-related information from non-health personnel. The information from radio was delivered frequently in the form of advertisements and promotion of specific remedies. However, the accuracy of this information was questionable and regulated inadequately by the government. Insufficient surveillance of such advertisements was also reported by Kittisopee, Anantachoti and Tangcharoensathien (2005) who claimed that seven of the top ten pain relief remedies most frequently advertised on radio were Traditional Medicines. Two of the three most frequently advertised medications were analgesics: paracetamol and piroxicam (Kittisopee et al., 2005). Furthermore, more than half (56.4%) of the advertisements' claims were exaggerated, incorrect or misleading according to the drug advertisement regulations of Food and Drug Administration (FDA) standard criteria (Food and Drug Administation Thailand, 2009). In the present study, some participants stated that the remedies should be proven prior to being promoted in the mass media. “Too much advertising is not very good. The remedies should be experimented on [to ascertain] their effectiveness before being advertised” (I: 20).

9.2.5 Access to pain relief treatments

Access to pain relief treatments had a great influence on the way the participants managed their chronic pain. The most accessible approaches were more likely to be adopted for managing pain even though they might not be as effective as less accessible approaches. Interview and observational data indicated three main treatment styles used commonly by elderly people to relieve their chronic pain: Western-oriented medicines; Traditional Medicines or Complementary and Alternative Medicine;[107] and lay-informed approaches,[108] such as avoiding exacerbating factors, and adjusting posture. However, they had limited access to Western-oriented treatments provided by health care providers, whereas some over-the-counter Western medicines[109] were more accessible, and there was greater access to traditional remedies. This situation resulted in participants using more traditional than Western-oriented remedies for pain management, and over-the-counter medication approaches were used by some participants. Lay-informed treatments were also choices adopted for their pain management.

9.2.5.1 Access to Western-oriented treatments

Two interrelated factors exacerbated inadequate access to health care to obtain pain relief for elderly participants in rural areas: (i) inadequate health care resources generally for people in rural areas, and (ii) limited health care services for elderly people in particular.

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[107] Traditional Medicine refers to the knowledge, skills, and practices used for health maintenance and illness prevention, diagnosis, improvement or treatment based on the theories, beliefs and experiences native to different cultures (WHO, 2005). Various forms of Traditional Medicine include pharmacological treatment such as herbal medicines, animal parts and/or minerals; and non-pharmacological therapies such as acupuncture, manual therapies, and spiritual therapies. In countries where Traditional Medicine has not been incorporated into the national health care system, it is often termed “complementary,” “alternative,” or “non-conventional” medicine (WHO, 2002).

[108] Treatments the elderly people learned mainly from lay people or their own experience that cannot readily be categorised as Western-oriented or Traditional Medicines.

[109] Over-the-counter medicines are those that can be purchased without a physician’s prescription (WHO, 2005).

Key indicators of inadequate access to health care resources included the relatively low ratio of health care providers to the general population, low ratio of health care settings to the general population, and limited health care resources from other pathways. The ratio of health care providers (physicians, pharmacists, nurses, and health centre personnel) to the general population in the study settings was very low. The ratio of physicians and nurses to population in the north-east region was half that of the whole country (Ministry of Public Health Thailand, 2007b). In addition, there was a low ratio of health centre staff to population in this region (Ministry of Public Health Thailand, 2005).[110] Roi-Et and Maha Sarakham had a similar low ratio of nurses per population in the region (1:1,200), whereas the ratio was higher (1:650) in Khon Kaen (Ministry of Public Health Thailand, 2007b). Even though the ratio of physicians per population in Khon Kaen was slightly greater than in the country as a whole, in Roi-Et and Maha Sarakham the ratios were less than one-third of those in the whole nation. In addition, these two provinces were among the ten provinces with the lowest number of physicians per population in the 76 provinces in Thailand: Roi-Et was ranked ninth and Maha Sarakham was ranked tenth in 2004 (Ministry of Public Health Thailand, 2007b).

Not only was the ratio of health personnel per population in the study settings low, there was also a relatively low ratio of health care settings to the general population. Health care settings included all levels of health care delivery services such as health centres, district hospitals, and provincial hospitals.[111] The ratios of health centres per population in the north-east region (1: 5,440) and in the three study provinces (1: 5,697 in Roi-Et, 1: 5,343 in Maha Sarakham and 1: 7,023 in Khon Kaen) were lower than those in the country overall (1: 4,985) (Ministry of Public Health Thailand, 2005). The ratio of hospital beds per population in the north-east region was 1: 759, which was the lowest proportion when compared with the other three regions in the country (Ministry of Public Health Thailand, 2005). Moreover, the ratio of public hospital beds to

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[110] In 2005, the ratio of health centre staff to population was 1: 2,097 in the north-east compared with 1: 1,511 in the south, 1:1,552 in the central region, 1:1,713 in the north, and 1: 1,762 in the whole country (Ministry of Public Health Thailand, 2005).

[111] In Thailand, health care services are provided through a hierarchical system of primary, secondary, and tertiary care. Primary care services are provided by health centres and community hospitals, which are located in sub-districts and staffed mainly by community health officers. Community hospitals are situated in districts or sub-districts and have 10 to 120 in-patient beds, and provide for a population of at least 10,000 people. Secondary and tertiary care is provided in provincial, regional, and university hospitals, which range from 200 to over 2000 beds (Kespichayawattana & Jitapunkul, 2009; Lee, et al., 2003).

general population in two of the three study provinces was lower than that for the north-east region (1: 1,138 in Maha Sarakham, and 1: 913 in Roi-Et), although the ratio in the other study province was higher (1:522 in Khon Kaen). The district hospitals serving villages A, B and C were responsible for populations of 78,361, 88,994, and 115,765 respectively (The National Statistics Office Thailand, 2009). The provincial hospital serving Village A was responsible for the provision of public health care to a population of 1,307,686 people in the whole province, while Village B's provincial hospital delivered health services to 937,972 people, and the provincial hospital for Village C provided health services to 1,759,172 people (Bureau of Policy and Strategy, 2010).

Several participants spoke about the problem of limited provision of public health care resources, resulting in long waiting times when they accessed these services. "At the public hospital … I waited there for 2–3 hours … I fell asleep [while waiting] one or two times .… This made me bored [fed up with the public hospital]" (I: 4).

In addition to having to wait for a long time, several indicated that these services were time wasting for themselves and their caregivers who accompanied them. Most avoided wasting time at the public health services by seeking treatment from private health services even though they had to pay for these services. "My child told me that going to the public hospital took too long, so she accompanied me to the private clinic instead" (I: 23).

However, there were also shortcomings in services provided by private clinics. Most participants accessing these clinics also complained about lengthy waiting times and then being seen by providers for a very short period of time. There is no formal referral system to the private health sector in Thailand (Kespichayawattana & Jitapunkul, 2009). Clients of private health services in the three study provinces could simply walk into the services without a prior appointment.[112] All participants who had received public and private health care services pointed out that the waiting time for services in

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[112] There was limited possibility to make appointments prior to visiting public health clinics in Thailand. Most required clients to attend the clinics without an appointment initially. An appointment date was then provided for the subsequent visit. However, the appointment time was not specific; for example, 9.00 AM for all patients who were expected to visit in the morning.

private clinics was shorter than that in the public health care services; however, it was still a considerably long time.

> I went there, [and I had to wait a long time]. When he [the doctor] came … he ran [was hurrying] to the examination room and his staff told each person to go to see him in the examination room. [When I went into the room], he … just used the stethoscope to touch my body, and then he gave me an injection and told me that I would recover soon … [He said,] "just take these oral medications" … There were many patients waiting to see him.
>
> (I: 23)

The student researcher also observed the situation of long waiting and short consultation times when she accompanied one participant to a private clinic. The participant, her caregivers and the researcher arrived at the private clinic around 6 pm and had the consultation around 7.30 pm. It then took about five minutes for the doctor to provide a diagnosis and complete the consultation.

Apart from inadequate health care resources in general, the participants encountered additional difficulties accessing health care services. Four factors contributed to this problem: (i) limited provision for elderly people in particular, (ii) a social belief that pain was a normal phenomenon in older age, (iii) a higher risk associated with treatment of elderly people, and (iv) a higher risk related to co-existing health problems.

Elderly people suffer greater health problems than younger people and require specific health services and systems (Kespichayawattana & Jitapunkul, 2009). The Thai Ministry of Public Health encourages the establishment of specialised clinics for elderly people in public and private health sectors. However, specialist provision for elderly people is still rare in public health settings, while those in the private sector are expensive and contributes to limited access (Kespichayawattana & Jitapunkul, 2009). None of the participants in the present study reported that they received elder specific health care when they accessed public or private health services for their chronic pain. Moreover, several commented that many people believed it was normal for older people to experience pain and other symptoms. Therefore, it was unnecessary for them to seek treatment for these symptoms considered as a normal part of aging.

> People say that it [my pain] is because I am elderly. It might not be cured. At the hospital a doctor said …. "They [joint pain and being elderly] are together for a long time. When we are old [the pain comes]."

(I: 12)

In addition to a social belief that pain in older age was a normal phenomenon, the limited provision of health care services for elderly people with chronic pain was accompanied by a higher risk of adverse treatment effects compared with treatments for younger people. Several elderly participants reported that some treatments for chronic pain, especially operative procedures, were refused outright, cancelled, or not seriously considered by health care providers, because of their older age.

> The doctor said, "Grandma, let me ask you, how old are you now? ... "Will you dare to have an operation?" Previously, I insisted to have an operation. The nurses said to me, "Grandma, will you dare to have an operation? If you have the operation and are under anaesthetic, you might not wake up. What do you think about this prospect?"
>
> (I: 7)

Having co-existing illnesses was another barrier to treatment of chronic pain. Most had one or more chronic illnesses such as heart disease, hypertension, diabetes mellitus, kidney disease, and thyroid disorder. These illnesses resulted in them being declared ineligible by doctors to obtain some therapeutic procedures for chronic pain. The following participant, who had been diagnosed with a herniated intervertebral disc,[113] indicated that she could not have an operation for her pain as a consequence of her other chronic illness. "I know I've heart disease …. He [the doctor] said it's risky to have an operation" (I: 1).

9.2.5.2 Access to traditional treatments

The participants had greater access to traditional remedies than to Western-oriented approaches. Factors that contributed to the greater likelihood of accessing traditional remedies included the abundance of available remedies and their considerably lower cost compared with Western-oriented treatments, and a greater range of sources of information.[114]

Similar to the sources of information, the supply of traditional remedies was also considerable, varying from the participants' home gardens to imported goods. Frequent delivery, or offers of it, was made to the participants' residences.

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[113] "Protrusion of a degenerated or fragmented intervertebral disc into the intervertebral foramen with potential compression of a nerve root or into the spinal canal with potential compression of the cauda equina in the lumbar region or the spinal cord at higher levels" (Stedman, 2005, p. 663).

[114] See Section 9.2.4 'Access to pain-related information,' for more details.

> They [people who sell traditional remedies] come very often … The herbs to be boiled for treating leg pain. They come to the village. Once they hear that a person [such as me] has leg pain, they will come straight to sell to me.
>
> (I: 5)

Most sources of the remedies were also related closely to the participants' daily activities. For instance, when they went to the market to buy merchandise they were also able to purchase traditional remedies. The remedies were available not only in fixed-location stores but also in many temporary trading markets where the purchaser might not have any information regarding the salespersons.[115] "We don't need to buy [traditional remedies] in the store. They are also sold in the open market on the 4th and 24th of every month" (I: 19).

The sources of traditional remedies could also be participants' home gardens, grass fields beside their residences, paddy fields, nearby forests, or fields some walking distance from their homes: "There are many kinds of herbs that could help me relieve my pain [growing] around my house. One is in front of my house; others are in the grass fields next to my house" (I: 15).

They could also obtain traditional remedies on the way to work in their paddy field.

> [I was on my farm truck[116] on the way to paddy field] I told my husband to buy it [the traditional remedy] for me …. I gave money to him, and he went to buy it at the intersection [where the mobile traders stop their cars to sell their products].
>
> (I: 23)

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[115] In temporary trading markets, the salespersons come from different places to sell their products. Some sell their products in these markets just once and never visit the place again; therefore, people who buy their products might have been given limited information about them.

[116] Thai style farm machinery that is used commonly by villagers to carry materials to paddy fields. It has a slow speed and loud noise (Teakdoor, 2007).

9.2.5.3 Access to over-the-counter medication

Apart from Western-oriented medication provided by health care staff, and traditional remedies distributed by natural healers and lay people, another option available to participants to manage their pain was to purchase over-the-counter Western-oriented remedies. A study by Sringernyuang (2000) revealed various sources of western pharmaceuticals in rural Thailand, such as pedlars, traditional practitioners, grocery shops, and general wholesale shops. The author also indicated that more than one-third of over-the-counter medications purchased in rural Thai villages were pain relief related remedies (analgesics 23%, non-steroidal anti-inflammatory drugs 17%, and steroids 1%) (Sringernyuang, 2000). Several participants in the present study had a preference for particular over-the-counter medications (‘*Ya Chud’*) for their chronic pain. They reported different sources for obtaining over-the-counter remedies.

> I got information about the herbal medication tablet because my cousin was there near the border [of Thailand and Cambodia].[117] He took the medication from the monk at Prakhonechai district [Burirum province] …. After he took the tablet, he recovered. And he suggested me to take the tablet. So, I have taken the tablet since then. I had to go to there [Prakhonechai district] to buy it for a long time and they felt pity on me. They let me make a phone call [to buy it]. They sent the tablet to me. I received the tablet here and sent the money to them. After that, they stored some medication in Roi-Et [province], [and I went there to buy it]. Currently, I buy it from [a villager in] Buarabue district [Maha Sarakham province] … he gives me the same herbal tablet.
>
> (I: 27)

Others who regularly took a particular ‘*Ya Chud’* reported that they bought them for pain relief from grocery shops in the villages or the district capitals. This researcher took samples of these medications to be analysed in Khon Kaen University’s pharmaceutical laboratory, where it was established that the samples contained a considerable amount of steroids.[118]

Overall, limited access to Western-oriented health care services was compounded by inadequate health care resources generally for people in rural areas and limited health care services for elderly people in particular. The numerous sources of traditional remedies had contributed to abundant access to these approaches. There was also

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[117] This tablet contains a considerable amount of steroids even though people consider it a traditional remedy (ASTV Manager Online Thailand, 2009; Sukhsamran, 2007).

[118] See Appendix 8 ‘The results of pharmaceutical analysis of samples of participants’ over-the-counter medication from the central laboratory of Faculty of Pharmaceutical Sciences, Khon Kaen University.

considerable access to some over-the-counter Western oriented medicines to relieve pain.

9.2.6 Satisfaction with, and preferences for, practitioners and treatments

Satisfaction with treatment already received influenced how the elderly people sought treatment. Analysis reveals, overall, that the participants were somewhat dissatisfied with Western-oriented treatments received from public and private health care services. This contributed to their decision to seek alternative services such as traditional remedies and over-the-counter medications. Some also preferred to have a specific method for their pain relief and tended to seek treatment from the settings that provided it.

Dissatisfaction with pain relief treatment from health personnel was reported in three main ways: the provision of impractical suggestions about management; inadequate provision for pain relief; and unclear information at consultation. Apart from obstacles to accessing pain information and treatment provided by professional health personnel, some of those who could access them found it difficult to follow the suggestions given by the health personnel. For example, the instructions given were not feasible for their living conditions. They articulated difficulties in dealing with their pain, even though they received services from health personnel, because the health personnel only suggested to them what they should avoid doing without offering any better alternative (such as the suggestion of not taking the herbal tablet without a provision of any other effective medication). The participants sometimes found that the most effective treatment for their pain was discouraged by health personnel who offered no other effective remedies. They reported experiencing more obvious adverse effects from the treatment of the health personnel than from those remedies that they were being instructed to avoid.

> When I went [to see Doctor Pra to discuss] for the operation, he told me, “Stop taking the black and red herbal tablet, grandma. There are many people [who have taken the tablet] have died already.” … When I stopped taking the herbal tablet, I felt pain a lot. There was much swelling [in my joints] … He explained to me and wanted me to stop taking it. Then he gave me some oral medications. I took his medications, and I vomited a lot … I felt that I was near to dying.
>
> (I: 27)

Some indicated that the services they received from health personnel did not meet their needs for self-management of chronic pain, making it necessary for them to find other ways of dealing with their pain.

> When I asked for the ointment [from the health centre staff] I received only one tube. I think one tube can be applied for one time only because I apply it from my feet up to my waist now [And I have to buy the ointment from other places to apply for my pain].
>
> (I: 27)

Some felt that the treatments given by health personnel were not consistent with the cause of their chronic pain. They expected the personnel to provide more specific treatments for the underlying cause of their pain.

> If I have kidney disease, I want them [the doctors] to give me the medications for kidneys. If they said that I have calculi, I want to take the medications for calculi … I want them to give me the right medications, not only the medications for peptic ulcer. I know the medications [I receive from them]. I have taken the medications many times. Don't just only give me the same medication for all different illnesses I suffer.[119]
>
> (I: 25)

In addition, preferences for a particular method of treatment affected the way elderly people sought pain treatment. A Thai study by Nuntaboot (1994) reported that injection was very popular among Thai villagers because they believed that an injection was more effective than other methods of medication administration. They frequently requested an injection if possible when visiting practitioners. In the present study, several elderly participants reported that they preferred to have an injection when consulting with practitioners. They were more satisfied with, and tended to return to, practitioners who gave them injections. Observations by the student researcher also revealed that some private practitioners offered to give injections to elderly people who were visiting their clinics. "I prefer to have an injection. I am bored [tired] of taking oral medications. I want to have an injection. I want to have the pain relief soon. Wherever I go, I want to have an injection" (I: 11).

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[119] Observations revealed that the doctor's prescriptions to this participant were ciprofloxacin, buscopan, and antacid gel. The purpose of prescribing 'the medication for peptic ulcer' (antacid) may be to reduce adverse effects of other medications. Side effects of ciprofloxacin include symptoms of gastrointestinal irritation such as nausea, vomiting, and heartburn (Skidmore-Roth, 2008).

9.3 STRATEGIES

Elderly people used five overlapping strategies to seek the most suitable treatment to relieve their pain: *gathering and responding to information, accessing resources, using trial and error, evaluating treatment,* and *evaluating practitioners*. These strategies contributed to their decision making about which methods of pain management they eventually adopted.

9.3.1 Gathering and responding to information

The ways in which elderly people gathered and responded to information about the various methods of pain management varies from those involving very little effort to intense searching for information. There were variations in the types of information, the methods used to gather it, and their responses to it.

Types of information

The information was related to the types, application, availability, providers, effectiveness, and cost of treatment. They gathered information primarily about the types of treatments that were likely to be effective for similar painful conditions. Information was obtained about Western-oriented medicine, Traditional Medicine, and lay-informed treatment. The range of Traditional Medicine treatment recommended for pain was much more varied than that available from Western-oriented medicine.

The information about traditional treatments for pain commonly acquired by elderly people was mainly about herbs to be boiled and taken as liquid after boiling. Most indicated that they acquired this information after they experienced chronic pain.

> I bought the medication for 'Pradong.' They [the traders] sell this medication at an open market on 4th [of every month]. I bought a medication of 'Hua Khau'[120] to combine with it [the herb which is boiled and its liquid is then drunk]. Also, [I take] the herb available in our village, 'En-On Ivy,'[121] [to boil with other herbs and take as a liquid]. I combine them all together. The [traditional] doctor told me [to do this].
>
> (I: 19)

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[120] A herb with the Thai name 'Kao Yen Tai' and Latin name *Rhizoma smilacis glabrae* (Jiang, Wu, Lu, Lu, & Xu, 1997; Sunthornthanasart, 2009).

[121] A herb with the scientific name *Cryptolepis buchanani Roem* in the 'Periplocaceae' family (Northern Research Center for Medicinal Plants Chiang Mai University, 2009).

Information about the use of non-medicinal Traditional Medicine therapies for chronic pain was also collected widely. Many obtained information about massage, while several received recommendations about acupuncture.[122] Some were persuaded to adopt these therapies, "People told me to have acupuncture" (I: 13); whereas others were advised not to use them, "My daughter asked people to tell me not to have a massage [from traditional practitioners]" (I: 18).

They also gathered information about storing and applying treatments, especially Traditional Medicine treatments.

> The medication in that small bag is called 'the medication of kindness,' Korn [my younger relative who lives in Bangkok] said …. She also said, "Before taking the medication, make your wish to get rid of your symptoms [by saying that] you are having these symptoms and you wish to recover."
>
> (I: 7)

Information about the availability of treatments was also collected. Most were informed about where they could find the treatments, especially herbal treatments. "People went to pick it [a flower that helped my neighbour to recover from pain and be able to walk again after being bedridden for a long time] from paddy fields" (I: 29).

In addition, elderly people also received information from others about Western-oriented and Traditional Medicine providers. Some were encouraged to visit a private clinic, "Many people said that a female doctor at a private clinic in Kud Rang district gives an effective treatment. People who went there before told me to go there [because it worked for them]" (I: 11); whereas others were persuaded to see a natural healer.

> My uncle who lives in Nong Song village also made a phone call, "Teun [my daughter], accompany your mum to go [to see the traditional practitioner]. Dan [my son], accompany your mum to go [to see the traditional practitioner]. [Take her to] go to Sakholnakorn province. Many people in my village have recovered."
>
> (I: 2)

Details about the effects of treatment were commonly obtained while collecting information about types of treatment. Most indicated that they received strong

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[122] A traditional Chinese method of treatment, inserting fine needles into the skin along a specific series of lines on the body (Harris, et al., 2009). Some degree of pain relief can be achieved by placing an acupuncture needle in or around areas of local pain (Lewith, 1998; Mole, 2008).

recommendations regarding Traditional Medicine treatments from many people in their communities.

> It [the herbal tablet] is the one that Mrs. Tonga takes regularly … and then Mrs. Prang takes it …. Then it has been distributed to other people, to many people, from person-to-person …. Everyone said that it’s effective. “If you do not dare [are reluctant] to take it, you will not be able to walk,” many people said to me.
> (I: 1)

Alternatively, some were urged to stop taking Traditional Medicine treatments, such as a particular herbal tablet, claiming that while the treatments may have immediate benefit in relieving the pain they could be harmful in the long-term.

> I took a herbal tablet [and it helped relieve my pain], but many people told me not to take it too much [because it could adversely affect my health after taking large amounts of it or taking it for a long time] …. [I] took it [the herbal tablet] around a year [and I stopped taking it due to other people’s urgings].
> (I: 7)

Other information gathered by elderly people included details about (a) the cost of pain relief treatments, “San [my ‘relative’ who lives in another province] said that the price was more than 3,000 baht” (I: 10); (b) providers’ services, “People told me that this doctor charges [his clients] a lot of money” (I: 25); and (c) transportation “The cost for just renting the car was 600 baht. [The total cost] each time, including the medications [and the doctor’s] fee was a thousand baht” (I: 11).

Ways of gathering information

Generally, there was limited written information available about how to relieve pain. The most common ways of gathering information from lay people were by face-to-face conversation, “Wira told me that she had pain. She went to see doctors in many places, but they could not relieve all her pain. She applied this balm and she felt no pain” (I: 7); by telephone “My uncle who is living in Nong Sang village also made a phone call [to tell me to visit a traditional practitioner at Sakhol Nakorn Province]” (I: 2); and by listening to radio programmes.

In addition, some collected information about pain treatments by observing their effect on other people.

> My eldest sister, Chan, she said she felt pain if she stopped taking it [the herbal tablet]. When she took it, she could go to the temple, and she did not stop taking it. [And she has already died from side effects of it].
>
> (I: 7)

Similar to the channels for obtaining information from lay people, the elderly people obtained information from health personnel by listening to suggestions provided by them, asking questions, listening to discussions between health personnel, and interpreting their gestures. However, passive one-way communication, as in listening to suggestions by health personnel, was the most common channel for obtaining information from these personnel. “They [the doctors] told me, ‘Grandma, take this medication. You cannot recover whatever you do. You can only relieve your symptoms to some degree’”(I: 10).

Some gathered information from health personnel by asking questions but the responses did not always enhance their understanding of pain management.

> I asked, “Why will doctors only cut [amputate] my legs?” [The doctor did not answer my question but said to me], “So, take a rest and wait grandma. Take a rest like this. Wait until the legs are not swollen. Then we will do what we will do.”
>
> (I: 2)

Listening to health personnel while they were having a discussion about elderly people’s conditions was another way to obtain information about different methods of pain management. “They discussed in their team, ‘We don’t have to [should not] give her an operation. She is already old. She will not awake from the anaesthetics’” (I: 11).

Observing the health staff’s non-verbal gestures, while the staff were talking to them, was another technique utilised to collect information about pain treatment. They also reported that verbal communications of health staff sometimes had other implied meanings.

> Three doctors came [to visit me] and shook their heads. [I guess that the illness that caused my pain might not have any treatment because its prognosis was bad] …. Jitr [health centre staff] came to visit me and I asked her, “How am I? Am I near to dying? Will I still alive?” Jitr said, “No, you are not dying. You will be alive for 3–4 years more. Do you want [to be alive] for 3–4 years more? The longest time might be 5–6 years. Do you understand what I mean by year?” I said, “No matter if it is 2–3 days. I don’t care. I understand what you mean [by year]. The word ‘year’ actually means ‘month.’ You don’t want to scare me by telling me that I will live for only 3-6 months.
>
> (I: 2)

Responding to the information

After gathering information about the methods of treatment, elderly people responded by examining its reliability; assessing the feasibility of the suggestions given; and identifying further action, such as deciding whether or not to follow the instructions, and consulting other people. They scrutinised the information they obtained in order to decide whether or not to believe in and follow the suggestions. Some information they considered unreliable, some they felt it was unlikely to help relieve their condition or to be as effective as claimed.

> I told him [the health centre staff], "Could you give me an injection? I have extremely painful [legs]." He replied, "Does your pain come because you walk too much? .… I haven't walked to any place far away from my house [the health centre staff told me not to walk too much in order to relieve my pain, but I do not walk too much and I still have pain].
>
> (I: 5)

After gathering information, they also considered the feasibility of these suggestions in their situations. Several implied that the suggested treatments were unsuitable for them or were difficult to consume or use. Some stated that the suggestion to have an operation was unacceptable for them without giving an explanation for their decision. Others spoke of different reasons, in particular their old age, and financial difficulties, as the basis for declining to accept certain treatments.

> The doctor at Thonburi [private] hospital said such words as "It [your pain] cannot be cured if you do not have the operation." I do not have money to go [for an operation] …. They suggested me to have an operation, but I thought I am already old; I would just let it go [not have the operation].
>
> (I: 30)

Some indicated that they were advised not to use a particular treatment because it was harmful and were given another treatment. However, they found that the new treatment caused them more immediate adverse effects than the original one. Others pointed out that the recommendation to stop doing work in order to recover from the pain was impractical because they lived in rural communities and needed to work to fulfil their basic needs for life, such as having food to eat. "[The doctor said], 'If [you] want to recover, you should stop working.' I said to him, 'If I stop working, then will I have food to eat, doctor?'" (I: 7).

They also examined the information they gathered and decided on further action to manage their pain. Some articulated that they, and many people in their communities, took a particular herb for a period of time after being informed about its pain relieving properties, and then stopped taking it after being told about its toxic effects.

> Many people said that when they take the herb ‘Mok Bua Ian,’[123] they recover. So, I took the herb. My pain was better after taking the herb … Then people said on the radio, “People having this herb will die because of cancer. There are large amounts of toxins in this herb. Stop taking it.”[124] Then, we stopped taking [the herb] all over the village.
>
> (I: 7)

One elderly woman was told by health care staff at a hospital that she needed to have her legs amputated to relieve the pain. She decided that she wanted to keep her legs rather than have the operation, irrespective of what would happen to her life. She asked her children to take her away from the hospital.

> The staff said that they would give me an operation [to amputate my legs]. I left [the hospital without telling the staff]. [I asked my son to], “Bring mum home.” …. I said, “Whatever happens, I prefer to have my legs with me until I die.”
>
> (I: 2)

Another response to the information obtained was to consult with other people, especially family members, before deciding whether or not to take the pain treatment.

> He said “It’s a herb.” He fermented it. It has to be fermented for three months. In 15 days it will be three months, then he will bring it for me to be the first person to try it. Then I called my grandchildren to ask their opinion. They said, “Even the experts [doctors] say that the chance [of recovering from your pain] is 50/50, grandma. Please do not take it. Medicine that we have never seen [before], we never know. We have never seen this tree [from which the herb was extracted]; if it was some herb like Fatalaijone[125] or Bau-ra-phet ivy[126] in our village, people can take it without experiencing any harm,” they said.
>
> (I: 1)

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[123] A herb with the scientific name *Drosera indica L* in the Droseraceae family (Institute of Thai Traditional Medicine, 2008c).

[124] This information was confirmed by data obtained from the Ministry of Public Health Thailand website (Happy Station FM, 2008; Thai National News Bureau, 2008)).

[125] Scientific name: Andrographispaniculata, Family name: Acanthaceae (Chuakul, Soonthornchareonnon, & Sappakun, 2006; Institute of Thai Traditional Medicine, 2008b).

[126] Scientific name: Tinospora tuberculata Beaumee, Family name: Menispermaceae (Institute of Thai Traditional Medicine, 2008a).

9.3.2 Accessing resources

In addition to information resources, elderly people accessed other resources to help them self-manage their chronic pain, including treatments, financial support, and transportation support. They accessed these other resources from the same sources that they obtained information resources, in particular from lay people and health professionals. Sometimes, they received information and resources simultaneously; for example, when people suggested that particular treatments may be effective, these individuals also gave the treatments as 'gifts' or sold them at the same time. Family members, 'relatives,' healers and treatment retailers normally offered information and treatments at the same time.

> The mother of my son-in-law takes it [a herbal tablet] … She gave it to me and said, "Try it. If you will die, you will die. If you will live, you will live." [She encouraged me to take it and] expressed her good wishes to me. "Take it, I am giving you one and a half tablets [here are the tablets]. I bought them at 100 baht per tablet. I have already taken half a tablet. I will give you one to taste [try] it."
>
> (I: 1)

The ways in which they obtained resources to self-manage their pain ranged from being offered assistance by others, which involved very little effort, to intense seeking of resources by themselves requiring a great deal of effort. They commonly accessed pain management resources, including Western-oriented and Traditional Medicine treatments; however, Traditional Medicines were much more likely to be offered to them. Some sought treatments by themselves from the places close to their residences, including their home gardens. "The other day, in the evening, I felt hot—burning a lot. I cut some stems of Aloe Vera sedge to apply [to my hot-burning skin]" (I: 30).

Others searched for the treatments along with other people in their communities who had similar symptoms.

> People all over the village [who suffered pain] drank it [the herb's liquid after boiling]. We went to find it no matter how far away it was. We prepared some meals to take with us while picking the herb. I dry it and keep it in this big bag [demonstrates the size with her hand] now.
>
> (I: 7)

Several asked for assistance from others, such as family members, to obtain treatments or to enable them to use treatments. One articulated that she asked her spouse to prepare a home-made hot compress to relieve her pain and she insisted on continuing to have assistance with the compress when he asked to stop preparing it for her. Some indicated that they always asked their children to take them to obtain treatments.

> I always ask my children [to accompany me] to go [to seek pain treatment] … "Let's accompany me to go [to see doctors]. [let's take mum to] go to this place, go to that place," I said to my children …. Wherever people say it's good, I ask my children to take me [there].
>
> (I: 2)

While they sought the pain relief treatments by themselves and/or had to seek assistance to obtain the treatments, many people in their villages also offered them various types of herbs for free.[127] Some reported that they faced situations of having others vigorously offer these treatments to them. Many traditional healers and retailers of herbal and other treatments came to villages to sell their products. These sellers were often persistent in trying to persuade them to purchase and take their treatments. The same woman who favoured a particular kind of traditional approach to treating her chronic pain indicated that while she had to make a strong declaration to have her preferred treatment, she also had to repeatedly refuse other treatments being offered by her 'relatives' and retailers.

> I said [to my relative who gave me a strong recommendation to take a herbal tablet], "I have too many illnesses; I am afraid that it will affect my illnesses." …. I said [to people offering other treatments], "If the products are not good for my heart disease, I might die because of the products. Who should I blame then?" So they went away. This year I haven't seen them at all. They used to come every three or four days and persuade me vigorously to take treatments they brought to sell [till last year].
>
> (I: 1)

Financial support was another resource sought by elderly people. Most asked for money from their children to enable them to obtain treatment for their pain, "If [I] have no money, I ask for [some] from him [my son]" (I: 13); whereas others waited for money to be given because they were concerned about their children's financial difficulties.

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[127] See Section 7.4 'Availability of support,' Chapter Seven 'Contextual determinants,' for more information.

> I don’t have enough money for my expenses [and pain treatment] … my children gave me money a long time ago. They also have [money] problems, too. It is not very good to ask for their help too much.
>
> (I: 20)

They also sought assistance with transport in order to access pain treatments, particularly when providers were located a long distance from their residences. Because of their immobility or difficulty walking, some also required transport to the venues situated within walking distance of their homes. “My husband accompanies me to go [to the health centre] in a wheelchair” (I: 1).

In obtaining transportation, some asked for it by themselves, “When I go to see doctor, they [my children] accompany me to go [there]. They ask me if I [want] go to see the doctor” (I: 14); some had other people request it on their behalf; whereas others were offered it without having to make a request. Sometimes, they shared transport expenses with other people in order to get to the treatment settings. “I rented a car with other people, including Mrs. K, Mrs. Ta, Mrs. Khi …. Mrs. Ta [has the condition] same as mine. We went [to see the doctors] together” (I: 5).

9.3.3 Using trial and error

Once elderly people considered that the particular treatments were likely to be effective for their chronic pain, and acquired the necessary resources required for obtaining the chosen treatments, such as money, transport, and individual support, they used trial and error to evaluate the treatments until the most appropriate pain management for that particular time and context was identified. When the time and/or the context changed, some would revert to trial and error.

Elderly participants adopted different trial and error sequences with the treatment styles (Appendix 7). Western-oriented treatments were the first choice for self-managing chronic pain for more than half of the elderly participants. Most of those who tried initially only Western-oriented treatments reverted to using traditional treatments and/or their own lay-informed approaches. Two who began their pain treatments with Western-oriented Medicine continued to use this style of treatment only but varied their treatments within that style. For example, they visited different Western-oriented practitioners at several private clinics; or visited practitioners at public and private health care settings, and then consulted only with practitioners at private clinics after encountering some unsatisfactory outcomes from the public ones.

> I went to see Doctor Chaing [at his private clinic] …. Then I went to Pho [public] hospital ... I went to Khon Kaen [public hospital] …. Now I go to see the doctor only at the private clinic in KR district [a district in an adjacent province], ... I also went to Pho [public] hospital before ... I wanted to have an injection so that my pain could have some relief. But after I had the injection, I felt pain a lot. I had to crawl to get around …. I got some oral medications from Pho Hospital, too. I took them but my pain did not decrease.
>
> (I: 11)

Many also used Traditional Medicine when they first experienced pain. Most used it in combination with Western-oriented treatment and/or lay-informed approaches. Initially, some tried only traditional treatments and changed to using only Western-oriented medicines when they learned that the traditional ones did not work for their pain. They then reverted to using traditional treatments again after the Western-oriented medicines were not effective or were unsuited to their situation. All others who tried traditional remedies as an initial response progressed to using lay-informed approaches as a supplement to other treatments in combination with Western-oriented medicine, and/or Traditional Medicine, whereas some progressed to adopting lay-informed approaches as their primary treatment. For example, some combined lay-informed approaches with over-the-counter medications.

> At the beginning of my pain, I went wherever I heard that there was good management for pain ….. I went to see only traditional therapists … I went to ChiangYuen, Khon Kaen, and KanLeung village …. Only the person in ChiangYuen district told me to avoid eating the forbidden foods. He told me, "Grandma, this disease cannot be cured no matter who has it" … I took the 'medications of Doctor Daeng' [the medications that are provided by 'Doctor Daeng'] …. So, I just live my life in this pattern [having chronic pain, avoiding some foods, and taking over-the-counter medicines to relieve pain].
>
> (I: 14)

Lay-informed approaches were used the least when elderly people began suffering pain, but later became the most common approaches during the final trial and error steps. All who initially combined lay-informed approaches with traditional pain management, such as exercising and/or adjusting their positions in combination with using some herbs, had a shorter trial-and-error experience than those who used other styles of pain management.

> I boil many kinds of herbs that I can take from around my house and drink their liquid. I also do exercise regularly. These two things help relieve my pain and I haven't used any other type of pain treatment.
>
> (I: 15)

Some had their own lay-informed approaches as their primary approach to pain management and used Western-oriented treatment only to relieve their pain when it became severe or during participation in special activities. For example, one exercised regularly to relieve her pain and visited the health centre for pain killers when she wanted to join social or religious activities.

> I only do my exercise at my house. I have particular ways of exercising ... Nang, the health care staff member, trained us at the temple. So, I remember [what she told us], and now do it myself at home …. I take the medications from health care staff [at the health centre] ... I keep the medications to take only when I feel stiffness or when I plan to go somewhere.
>
> (I: 12)

9.3.4 Evaluating treatment

Elderly people used interconnected criteria for assessing treatments. They assessed the treatments in relation to their effectiveness, cost, cost-effectiveness, discomfort/presence of side effects, and convenience in accessing and using them. Most evaluated effectiveness of the treatments and reported that while they helped relieve their pain for a short time, it reoccurred after the analgesic effect diminished.

> I decided to stop taking the medications [because] I did not recover after taking them. After the [analgesic] effect of the medication had gone, my pain returned …. The doctor's treatment did not work for me. The same thing occurred when I had injections from the doctors. I went to Srinagarind Hospital, too. I went there until I had no money and I just stopped going …. [I] took [the medication people brought to sell me at home, but they] did not work for me …. The pointing 'line' [nerve] and tendon [did not work for me].[128]
>
> (I: 19)

Some found that the medication did not make any difference to the severity of their pain. Several stated that their favourite remedies made them feel better than other treatments, whereas most reported that the treatments helped reduce their pain severity from intolerable to tolerable.

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[128] The elderly person went to see a traditional practitioner who treated illnesses by touching firmly on patient's body with a finger or stick.

> I take this kind of medication [Ibuprofen] and it helps my pain to be tolerable …. [After taking the medication from the health centre], I feel the pain is tolerable. I feel better. The feeling of stiffness in my joints also decreases.
>
> (I: 24)

Some stated that the treatments from public and private health care practitioners were equally effective. Alternatively, some pointed out that treatments received from private health care settings were more effective than those from public ones.

> People said, and I think it is true: when people have a mild illness and go to see the doctor there [at the private hospital] .... they recover. [Doctors in] the private hospital give effective medication to get rid of the disease. No people have died in the private hospital, but people die in the public hospital every day …. I notice that there are some differences in medications [between the public and the private hospitals]. The differences are not the doctors, but what I notice is medications .... If people who go to the private hospital do not recover from their symptoms, the hospital would not get any money from the people. The hospital has to treat in time [rapidly and not too late] to show people effective treatment in order that people will come there. (I: 5)

The cost incurred in obtaining treatments was another evaluative criterion used. Some treatments, although effective, were discontinued because of the high cost.

> The cost per month will be many thousands or tens of thousands, if people take it everyday ... It is expensive … If the price is 50–60 baht per bottle, it would be okay for me. But, it is 500 baht a bottle. The bottle had 50 tablets. I took four tablets a day. You can calculate how many days the tablets will last. It will cost many thousands per month. If I paid 500 baht and it lasted for a month, then it would be okay for me.
>
> (I: 5)

It was not only the effectiveness and the cost of the treatments that they investigated, but also the cost-effectiveness. They reported that while some remedies were expensive, they were willing to pay for them if they were effective in managing their pain. For example, some expressed willingness to sell their paddy fields to pay for expensive treatment if its effectiveness justified the expenditure.

> I thought [I bought it for] 500 baht [for taking] would make me feel better and recover. If I felt better ... I would find some money [mainly borrow from other people] to take the medication even though I don’t have money myself. But I feel the same as before. I say so due to the fact that I don’t feel better [after taking the medication].
>
> (I: 5)

Discomfort was another criterion they used to decide whether to continue using a treatment.

> One kind of herb with small leaves is over there [beside the fence]. It can help relieve leg pain .... It is called 'Tai Bai Tree.'[129] Previously, I took it ... It was very bitter. Sometimes I vomited while I was taking it ['Tai Bai Tree'].
>
> (I: 19)

Treatment-related side effects were also evaluated, especially in relation to tolerability and severity. While intolerable and severe side effects led some elderly people to discontinue using treatments, others persevered using particular treatments with severe side effects if they were informed in advance that these intense adverse effects would diminish after a certain period of time.

> I haven't felt pain in my waist before either. I just started feeling pain after taking this medication [Leishi]. I feel that my pain moves around my whole body .... I felt pain a lot …. I feel heavy in my bottom and find it difficult to stand up. My bottom is flaccid. When I stand up, I feel like my bottom is pulled down. This one [Leishi] causes me pain in my muscles …. People said that I will have side effects for six days after starting to take it.
>
> (I: 24)

Convenience in using and accessing treatments was another criterion used. Some effective treatments were discontinued as a result of inconvenience in using them. "I boiled and took its [a flower villagers obtain from the paddy fields] liquid to relieve pain two times … I stopped taking the flower. I am not diligent. Yes, I am lazy to boil the flower" (I: 29). They also assessed the convenience of accessing treatments, comparing accessibility of different treatment settings and general user friendliness, including waiting time. Many emphasised that it was more convenient to go to private health care settings than to public ones due to the problem of slow service and long waiting times at the latter.

> The private hospitals are different from public hospitals. What is the difference? …. Why do people go [to private hospital] even though they have to pay much money? It is convenience .... For the public hospital, [when people] go to this room, [they] have to wait for two hours, in Roi-Et hospital ... I went there once with Tue [my son]. I waited there for two or three hours .... I fell asleep one or two times; I hadn't been called to see doctor. This made me bored [with public hospitals even though] I don't have to pay.
>
> (I: 4)

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[129] A herb in the Phyllanthus urinaria L. family (Advances in Orthomolecular Research Incorporation Canada, 2009; Chuakul et al., 2006; Thailand Herbal Repository Access Initiative (THRAI), 2009).

9.3.5 Evaluating practitioners

Apart from evaluating the treatments they used for their chronic pain, they also evaluated the practitioners who provided them. Their evaluative criteria included practitioners' knowledge about and skills in using treatment, behaviours while delivering treatments, concerns about their well-being, and moral principles. They assessed the Western-oriented and traditional practitioners' knowledge of the treatment, including their qualifications and sources of knowledge, and treatment procedures.

> I looked around there [the practitioner's clinic] … I just wanted to know from where he graduated. There was nothing [a certificate of qualification] there. There were only bottles of medication, a bed, and a wide floor. He gave injections [while people were lying] on the bed. He used only hot water [to clean the needle]. And I thought, "[He was a] sub-standard doctor!"
>
> (I: 26)

> He [the person who gave a massage at the Phan village] had trained in Bangkok. His daughter is a doctor who went abroad. He went abroad for 3–4 months … so he went to be with his daughter and he learned how to massage from people who were abroad.
>
> (I: 29)

They evaluated how skilful the practitioners were. Some believed that, in their opinion, practitioners' suggestions about the causes of their pain were inaccurate, indicating that the practitioners lacked assessment skills. Some indicated their favourable impression of Western-oriented practitioners who could diagnose their problems in a very short time; likewise, others reported that they were impressed when the traditional practitioners could tell them quickly about the cause of, and the way to treat, their pain.

> The [Western-oriented] doctor touched this part of my body. He told me, "Your bone has moved to compress the 'line' [nerve]. He just used his hand to touch. I asked him, "Oh! How do you know so quickly?" He replied, "I know."
>
> (I: 11)

> Previously I could not move my legs as the same as I do now. The first time I went there to see the traditional practitioners, [I had to be] carried inside [because] I could not flex my legs. Now, I can flex them .... "I will take a rest for a moment. I feel that I am able to walk," I said when I was with the traditional therapist after receiving his treatment .... He told me that my tendon

> had collapsed and was stuck in my legs. They [my legs] were swollen. He touched and took it [the ‘collapsed tendon’] out [and my pain became better since then].
>
> (I: 2)

Practitioners’ behaviours while delivering treatment were also assessed. Some indicated that their practitioners had unorthodox behaviours and seemed to be unreliable. Others noted how polite and friendly the practitioners were to them, especially through their conversation styles. For example, one said that her traditional practitioner spoke candidly, “He said things in a slightly impolite but frank way” (I: 2). Another pointed out that some Western-oriented doctors at private clinics were polite to them whereas others were not.

> Doctors speak quite well. Some do not speak very well [politely]. Previously, the doctor at the place of Doctor Siri did not speak very well [politely]. But Doctor Attha and Doctor Sawin, whose clinics are at Tu’ shop, speak quite well.
>
> (I: 7)

Apart from assessing practitioners’ knowledge, skills, and behaviours while giving treatments, they also examined how much concern the practitioners showed about their well-being. Some assessed health practitioners in general, whereas others appraised the practitioners from different treatment settings. Many compared the concerns of practitioners in private and public health settings. They stated that private practitioners were more earnest in responding to their requests than those in public settings. For instance, some pointed out that when they visited a private hospital and asked to see a particular physician, the hospital attempted to facilitate their request. In contrast, several indicated that when they visited a public hospital, they could not see the doctor they wanted and had to see a different doctor each time they attended for the same problem.

In addition to comparing public and private practitioners in general, elderly people assessed how much an individual practitioner was concerned about their well-being. They reported some practitioners’ concerns about them, such as the practitioner reminding them about their diet when meeting them in the hospital’s cafeteria, and practitioners’ expression of pleasure when seeing them visiting at regular follow-up appointments.

> The nurse there [at the hospital] also treats me well. When I go to receive the medications, she holds my hand to go and said to me, “I afraid that you will forget to come.” She is also nice to me …. The hospital gave them [antilipidemic][130], to me and I took them. After I took the lipid medication [antilipidemic] my body was swollen a lot. So, I stopped taking the medications and gave them back to the hospital. The female doctor said to me, “Let take them even you are swollen.” I said to her, “If they cause me to be swollen, I don’t know for what to take them. Please have them back from me. So, I do not take them.”
>
> (I: 27)

The last criterion elderly people used was to assess the moral principles that guided the practitioners’ practices. Based on their cultural beliefs, they presumed that some traditional practitioners had good moral integrity and provided treatment with the intent of helping others. Many who visited these practitioners reported that they paid a small amount of money for expressing recognition of the ‘khru,’[131] not as a treatment fee. This claim was confirmed by some elderly people when they visited traditional practitioners and were charged a small amount of money. These practitioners also sometimes refused to take more than a modest payment, explaining that obtaining money from clients was not their main priority, but to provide treatment to help people.

> There are so many people who would come to see him [the traditional therapist] and he had a bowl for these people to put the money [in to pay] for his treatment. The amount of money given was up to clients. He told me to pay me 20 baht after giving me a massage on the day we went. I asked him, “Did I have to pay only 20 baht? Why is it so little?” He replied, “Only this amount of money [per person], I will be rich very soon [because lots of people come to receive my treatment]” …. Why do I have to charge you much money? Your travelling costs are already expensive,” he said.
>
> (I: 2)

Alternatively, some expressed disappointment with certain practitioners. For example, one reported being upset with a private Western-oriented practitioner. He visited a private clinic located at another province, a considerable distance from his residence. He was satisfied with the medication he received from the clinic. However, it was inconvenient for him to travel there. His daughter-in-law went to a private clinic

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[130] This elderly person has hyperlipidemia and hypertension. She is prescribed an antilipidemic. The drug’s action is to inhibit biosynthesis of very low density lipids, decrease triglycerides, and increase high density lipids (Skidmore-Roth, 2008).

[131] A ‘khru’ is a person who has taught knowledge, wisdom and skills in a traditional village culture. At the beginning of a traditional healing process, it is essential to pay respect to the ‘khru.’ Clients offer flowers, joss sticks, candles, and some money as a sign of recognition and gratitude to the ‘khru.’ The amount of money is small and is determined by the ‘khru’ (Phongphit & Hewison, 2001).

located in the provincial capital to buy the medications. She asked a doctor at a private clinic if he had the medications. The doctor told her that the medications were available at the clinic but would be given only to patients who came to the clinic. However, when the elderly man eventually visited the clinic, the medications received were different from the sample (that he and his daughter-in-law showed the doctor). He believed that the doctor wanted him to visit the clinic so that the doctor could charge him a doctor's fee in addition to the cost of medication. He concluded that the doctor did not have moral integrity.

9.4 SUMMARY

The data shows that elderly people sought treatment to manage their chronic pain in various ways, from utilising their own information and resources to using those made available by others, especially lay people. Those who placed a higher priority on obtaining treatment for their pain had more opportunities to explore the methods and resources to self-manage their pain. Those with better *information and resource seeking skills* also had greater opportunity to explore pain management. Furthermore, those who had more *reflective thinking skills* were more cautious and asked more questions about information obtained, whereas others accepted the information provided without questioning its accuracy. *Access to pain-related information* and to pain relief influenced the way they sought treatments, although there were limitations on access for the participants. *Satisfaction with, and preferences for, practitioners and treatments* also affected how they sought their most suitable treatment.

The elderly people used five strategies to seek the most suitable treatments for their chronic pain. They gathered pain management information from lay people and health professionals about types, application, availability, providers, effectiveness, and cost of pain management. There were various responses to the pain management information, including examining its reliability, assessing its feasibility, identifying further action, and consulting other people. Accessing pain management resources was another strategy used by elderly people. They experimented with their selected treatments to determine the suitability of each treatment for managing their chronic pain and their situation. Another strategy was assessing the treatment by determining its effectiveness, cost, cost-effectiveness, the comfort obtained, and convenience in, accessing and using particular treatment. The final strategy, *evaluating practitioners,* encompassed their evaluation of the practitioners’ knowledge of and skills in using the treatments, their behaviours, and their moral principles. The study findings are presented in Chapters Five to Eleven, and the second category was outlined in this chapter. In Chapter Ten, the third category, *integrating treatment into everyday life,* will be presented.

CHAPTER TEN

INTEGRATING TREATMENT INTO EVERYDAY LIFE

10.1 INTRODUCTION

Presentation of the study findings commenced in Chapter Five, and an outline of the first two categories was provided in the two previous chapters. In this chapter, the third category, *integrating treatment into everyday life*, is discussed. The category refers to the ways elderly people tried to use pain treatment as part of their daily living. A discussion of the context of the category is provided, followed by an examination of the strategies they used to incorporate the treatments into their lives.

10.2 CONTEXT

Two contextual factors that influenced the category were availability of support and elderly participants' self-care ability. Those with limited support found it more difficult to integrate pain treatment into their lives than those with greater support. As availability of support also influenced overall chronic pain self-management, discussion about this factor was provided in the chapter on contextual determinants; therefore, the context highlighted in this chapter is primarily on self-care ability.

SELF-CARE ABILITY

The ways elderly people integrated the treatments into everyday life were underpinned by their self-care ability. Those who could get around unaided were more likely to have a greater variety of treatment options at their disposal. They could access practitioners independently for treatment of their symptoms, including pain. They were also able to seek and/or prepare some treatments, such as traditional pain relief treatments, by themselves. "I went [by myself] to Chaturapak phiman [district capital] by motorcycle and parked my motorcycle at the police booth, and then I took the bus to see doctors at several places" (I: 4).

Alternatively, some had difficulty with mobility, which prevented them from accessing all their preferred treatment options. They pointed out that they could not travel independently to see pain treatment practitioners as before.

> Everyday, I call my relative who always passes by my house and says to me, “I see you sit down on this outside day bed every time I pass by.” I said, “If I do not sit down on this day-bed, can I walk to other places? [I always sit there because I cannot go anywhere].” …. Before this we had a bus to take passengers from the village to the Roi-Et provincial capital everyday … I went with him [the bus driver] two or three times per month. He never asked me where I went to. I never went to buy anything. I only went to see doctors who were specialists in bone disease at their clinic everywhere, such as clinics that were close to the central lake in the provincial capital.[132]
>
> (I: 10)

10.3 STRATEGIES

Elderly people adopted three interconnected strategies to integrate the treatments into their lives. The first strategy, *incorporating treatment into daily activities,* highlights the ways they made the treatments part of their daily activities. The second strategy, *minimising adverse effects of treatments,* explicates how they attempted to reduce side effects of their chosen treatments. The final strategy, *maintaining optimal health status,* highlights how they promoted their general well-being, and managed other co-existing symptoms in order to maintain the highest health outcome possible. They also refined their pain-related goals in terms of pain relief and work, as well as modified their involvement in work, family, social and religious activities.

10.3.1 Incorporating treatment into daily activities

As the elderly participants needed to use their selected pain treatments regularly for a long period of time, they incorporated them into their daily activities. Those who used Western-oriented medicines used particular events, such as meal times, as reminders to take their medications. Those who selected Traditional Medicines allocated time to prepare and apply particular treatments such as herbal compresses and ‘boiled herbs.’ Similarly, those who employed lay-informed approaches, such as exercising, wearing stockings, and drinking alcohol, also set aside time to perform these activities.

> After watching a TV programme and preparing dinner in the evening, my husband steams the herbs ... [My husband or my children] take the herbs from the steaming pot for me to use as a compress on my legs, after dinner … [I] use a compress on both of my legs, then go to bed ... My husband asks me whether I want to continue using a compress [while I am in bed], I say, “Yes I want to.” [He] steams the herbs one more time if the herbs have already cooled down. Before I fall asleep, I put the

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[132] The lake, which is a symbol of Roi-Et province is called ‘Bueng Phalan Chai’ (Tourism Authority of Thailand, 2010). Several private clinics are located around the lake, including two private orthopaedic clinics.

> herbs on one leg for around the same duration as we have talked [20 minutes], then put them on the other leg.
>
> (I: 1)

> I put them [the stockings] on from 8 o’clock [in the morning]. I take them off at 5 pm. At the beginning I wear them until dark and take them off only at shower time.
>
> (I: 20)

10.3.2 Minimising adverse effects of treatments

Pain treatment that elderly participants identified as the most suitable treatment still had a range of adverse effects, which they attempted to minimise. They took steps to reduce side effects to enable them to continue using particular treatments. For example, one used a hot compress as her main pain management method. She had burnt her legs many times previously due to applying the hot compresses. She realised that she felt numbness in her legs because of an impaired sense of feeling from having diabetes mellitus. She tried to minimise the problem by using a piece of cloth to cover the hot compress instead of applying it directly to her legs. She also reminded herself to move the hot compress more often so that it could not burn her skin again. Another man chose to decrease the prescribed dose of his medication.

> My wife cannot take this kind of medication [Ibuprofen]. She has a peptic ulcer after taking it previously. I take it and it helps keep my pain level tolerable. I take one tablet each time [The instruction recommends that two tablets should be taken each time] …. But I do not take it as frequently as the health centre staff told me. [If I took it as frequently as the health centre staff told me to take it], I would be too weak ... But it still works for me ... I had tried to take as much as they told me, and I found that I felt very weak.
>
> (I: 24)

10.3.3 Maintaining optimal well-being

Elderly people attempted to maintain their best possible well-being in addition to managing their pain directly. Most could not obtain complete pain relief, instead they could only achieve pain relief some of the time by using their selected treatments; therefore, they eventually set more realistic goals. They modified their roles in various activities to adapt to their pain conditions. They took care of their general health to slow down the processes that may adversely affect their health, and to prevent undesirable health conditions that might exacerbate their pain indirectly. Simultaneously, they also managed other co-existing illnesses that may have indirect effects on their pain or pain management.

10.3.3.1 Setting realistic goals and adjusting roles

Initially, most wanted to relieve their pain completely, but later refined this goal to achieving tolerable pain levels. They commonly expressed the phrase ‘stay in this pattern’ or ‘living day by day’ when talking about their pain. This indicated they accepted that the pain was with them permanently. As a consequence, most only tried to do something to relieve their pain if it became intolerable. “I think my pain might remain like this [forever]” (I: 30); and “If I feel pain, I will tolerate it …. When my pain is severe …. I just take a tablet; I take it infrequently” (I: 1).

In a similar manner to adapting their pain relief goals, they also modified their aims in terms of work, often in consultation with family members, because they realised that the pain compromised their ability to work and it could not be removed completely. Many who previously could work now just wanted to achieve a satisfactory quality of life that included being with their families.

> I worked very hard before …. I want to find effective medications for me so that I can recover. If I recover, I will be able to be with my children and grandchildren longer. I will sit down in my house and stop working.
>
> (I: 10)

> “Free from your pain is already good enough, mum. Don’t do anything. [We want you] just sit down in the house. [You] cannot walk straight; it doesn’t matter. Just as long as you can walk and are free from pain. [We are satisfied with it],” my children said ... [They told me] that they will not let me do anything. They just want me to sit down in the house. They will work for me.
>
> (I: 11)

After experiencing chronic pain, selecting their pain management methods, and setting more realistic goals, the elderly participants modified their family and social roles and their involvement in certain religious activities. They found that their ability to perform routine activities was compromised because of pain. As a consequence, they adjusted their roles or duties, which were dependent upon availability of support.[133] They modified their family role from being independent to becoming more dependent on others, such as asking family members to carry out routine activities that they were no longer able to perform. They also adapted to accepting assistance from family

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[133] See Section 7.4 ‘Availability of support,’ Chapter Seven ‘Contextual determinants,’ for more information.

members to get around. Most, who used to prepare meals for themselves and their families, changed their role to having other family members cook for them.

> My children went to pick the mushrooms in the forest. Before they went, while I was sleeping, they came to wake me up to have lunch. I told them that I was not yet hungry. Before they left, they told me that the food was in the pot.
>
> (I: 5)

In addition, they changed their work-related roles, which were consistent with their realistic goals. Most had family members take over their work in the paddy fields and they stayed at home to look after their grandchildren and/or made simple meals, such as preparing steamed glutinous rice.[134]

> My children told me not to do anything …. I want to go to [the paddy field to] do some work. My children don't want me to go. They said that I am already old. My daughter told me, "Mum, do not go. Just stay at home and take care of your grandchild."
>
> (I: 3)

They made social role adjustments after experiencing pain, including reducing contact with 'relatives' and participation in social and religious activities. These adjustments were facilitated by support from others, such as families and 'relatives.'[135] Most reported that the pain affected their mobility, directly or indirectly, and they changed their role from visiting 'relatives' to waiting for 'relatives' to visit them. They also modified their involvement in Buddhist activities. Many formerly went to the temples regularly to give food offerings to the monks. After experiencing the pain, some gave food offerings to the monks at a nominated place closer to their residences instead of going to the temples. In addition, others also had the monks visit them rather than having to walk for a long distance to take part in these activities. Several were accompanied by others to go to the temples to maintain these activities.

> If today I walk to the temple and walk back home, the next day I will not be able to walk because of pain …. Sometimes, I can do it [put food offerings into the monks' bowls when they walk around the village to let people give food offerings]. The monks are very kind to me. When I walk where they are waiting for people, they walk to me and bring their bowls for me to fill [because] they know that I cannot walk very well [due to my pain]. (I: 27)

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[134] Steamed glutinous rice is a staple meal for north-east villagers, and is consumed with other dishes. Most elderly participants are responsible for preparing it for their families.

[135] See Section 7.4 'Available of support' Chapter Seven 'Contextual determinants,' for more information.

Those who were able to go to the temples also modified the way they participated in religious activities to avoid exacerbating their pain, such as not taking part in certain activities, resting their legs, and adjusting the way they sat while engaging in activities.

> When I sit, I have to use my elbow pressed onto the floor until it seems to turn black. When I sit with my legs folded back to one side, I have to press my elbow on the floor [because] I have much pain, I feel extreme pain …. When I put my offerings into the monk's bowl, I have to press my hand on the floor to help me to sit down. When I stand up, I also have to press my hand on the floor to help me to stand up.
>
> (I: 23)

In addition, some who found that pain compromised their ability to get around their village and to go to the temple resorted to taking painkillers to enable them to join in these activities. Some who were unable to place food offerings by themselves adjusted their participation in religious activities in other ways; for example, some had family members offer food on their behalf. Others made an 'Anumodana'[136] by performing 'Wai'[137] and expressing gratitude to other people who were giving food offerings to the monks or doing other religious activities.

> I went to the temple on the Buddhist holy day. I went to give some food to the monk in the morning. The monk came to receive food offerings from people. I went to give some food to the monk every morning. On the Buddhist holy day, I went to the temple regularly to give some food to the monk for breakfast and lunch. However, after I got the pain the most I could do was to raise my hand [performed 'Wai' when other people were giving food offerings to the monks for making an 'Anumodana'] … I raised my hand ['Wai'] to make merit with other people.[138]
>
> (I: 11)

Apart from modifying the way they gave food offerings, they also adjusted their way of practising Dharma. Those who used to go to practise Dharma in the temples before they experienced pain modified their involvement in these activities in several ways. Some went to the temple only at the beginning and on the last day of Buddhist Lent, and practised Dharma at home in the interim. Many stopped joining Dharma practice at the temple after experiencing chronic pain. "I stayed at the temple to practise

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[136] A Buddhist word referring to being happy, giving approval, or encouraging people to do good deeds (Bhavanaviriyakhun bhikkhu, 2009).

[137] A Thai way of greeting and giving respect by raising both hands with palms close together (The Government Public Relations Department Thailand, 2009).

[138] She made an 'Anumodana' to people who were giving food offerings to the monks for making/ sharing merit because she could not do it by herself anymore.

Dharma regularly [every year during the period of the Buddhist Lent] … I do not go anymore” (I: 12).

10.3.3.2 Preserving health/ promoting general health status

In addition to setting realistic goals and modifying their roles, they also preserved their health status in various ways. Many made sure they had sufficient rest and avoided doing too much physical activity regardless of whether or not these activities intensified their pain.

> I take some rest and also do some exercise. After taking a bath and getting dressed, I take a rest. I lie down and watch a soap opera or some other TV program. After doing some work, I take a rest.
>
> (I: 12)

Several reported that they fell or were afraid of falling and tried to prevent falls. They reported that they always walked and performed their work slowly and carefully. . “When I walk, I walk slowly [because] I am afraid that I will fall again, and I might break my legs again. My legs have been broken before” (I: 22). Others were careful with certain foods they consumed because they felt uncomfortable after consuming them. They stated that they avoided taking too many medications because they were afraid that the medications would be harmful to them or would be less effective when the medications were required for more severe problems.

> I had pain (from toothache) very much ... My husband told me to take some painkiller and gave it to me. I said to him, “I cannot take it; I have taken a lot of medications already” .... I said to myself, “Why should I take this medication. If I take it, I will get used to it (it will not be effective for me when I really need it).
>
> (I: 29)

Some had physical check-ups occasionally. One who had taken a pain remedy for a year reported that she intended to stop taking it after discovering that it was harmful to her health. “I force myself, [and said to myself] ‘what will happen, [I] will let it happen. Be patient. I will not take it’”(I: 7). Some added various food supplements to their diet.

> One thing that I do not stop having is bird's nest [soup].[139] [I eat it in order] to enhance my energy. Once I have it, it makes my other food taste delicious. I also drink Anlene Milk [milk high in calcium]. I drink it every day.
>
> (I: 1)

10.3.3.3 Managing co-existing symptoms

Three-in-four elderly participants suffered other chronic health problems.[140] As a result, they managed other co-existing symptoms in addition to dealing with their chronic pain. Management of these symptoms together could be more complicated in some instances and could also be more convenient in other situations. Elderly people with certain co-morbidities experienced severe adverse effects when they used some pain treatments. Those with peptic ulcers experienced intolerable side effects when they used NSAIDs to treat their pain: "I had severe abdominal pain after taking this pain [Diclofenac][141] … I have a problem with peptic ulcer, too" (I: 31). Similarly, for those diagnosed with heart disease, there were higher risks associated with undergoing surgery to treat the underlying causes of their chronic pain. As a result, they decided not to undergo this treatment. Many also reported that they could not make follow-up appointments for their co-existing illnesses as before. However, they managed to maintain a regular check-up and took medication prescribed by their physicians. For example, one was less mobile and found that it was very difficult to go to a physician for her co-existing illnesses because of her chronic pain. She spoke of having tried very hard to make arrangements for more convenient follow-up appointments at the district hospital.

Conversely, the management of co-morbidities could facilitate chronic pain self-management to some degree. Having an appointment on a regular basis for a co-existing illness provided them with access to consulting health personnel for their pain problem. Several participants made the most of their co-existing illness follow-up appointments by asking for painkillers when they were having these appointments.

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[139] In Chinese Traditional Medicine, bird's nest soup is believed to have a high nutrient level and provide good health benefits, such as slowing down the ageing process and enhancing immunity (Chan, 2004).

[140] See Section 4.6.2 'Self-reported chronic health problems,' Chapter Four 'Methods of data collection,' for more information.

[141] The elderly woman showed the prescribed medication for her pain treatment to the researcher. The name on the package was diclofenac, which was a pain medication in the NSAIDs group (Skidmore-Roth, 2010).

> When I go to follow up for my diabetes mellitus, they [the health centre staff] give me some [painkiller] medications, too. I keep the medications and take them only when I feel stiffness or when I plan to go somewhere.
>
> (I: 12)

10.4 SUMMARY

In this chapter, the third category, *integrating the treatments into everyday life*, was presented. The way elderly people integrated the treatments into their everyday lives was influenced by their self-care ability. Those who had a higher level of self-care ability had greater choice of treatment options. They applied three interconnected strategies to integrate the treatments into their lives. They incorporated the treatments into their daily activities. They minimised the undesirable effects of the treatments to enable them to continue using these treatments. At the same time, they also tried to maintain their optimal well-being. To achieve this, they reduced their pain relief goals from achieving complete relief to maintaining a tolerable level of pain. They minimised their goals regarding work, thus becoming less physically active, and modified their family and social roles, and level of involvement in religious activities. They also tried to preserve their general health status and manage other co-existing symptoms well. In the next chapter, the core category is discussed.

CHAPTER ELEVEN

CORE CATEGORY

STRIVING TO MAINTAIN WELL-BEING:

ADAPTING TO CHRONIC PAIN

11.1 INTRODUCTION

The findings chapters of the study were outlined in the six previous chapters, providing an overview of the findings, basic social psychological problem, contextual determinants, and the three categories. In this chapter, the core category is presented. In response to the basic social psychological problem *uncertainty about pain self-management,* elderly people adopted the basic social psychological process *striving to maintain well-being: adapting to chronic pain.* This core category overarches the existing processes embedded in the three categories: *making sense of pain, seeking the most suitable treatment,* and *integrating treatment into everyday life*. Four contextual determinants identified in the study were *living in rural isolation, living in poverty, availability of support,* and *quality of relationships with practitioners*. These determinants affected the way participants self-managed their chronic pain, and contributed to the theoretical framework that seeks to explain the processes involved in the core category *striving to maintain well-being: adapting to chronic pain.*

In this chapter, the core category, which overarches each of the other categories, is presented. Three transitions that represent a continuing process of change, and which are embedded in the core category, are also discussed. The dynamic feature of the transitions encompasses constant change in forward and backward directions along continuums. A particular response of elderly people may involve aspects of more than one transition at any given time. The transitions include:

(i) undergoing wellness–illness change,
(ii) coming to terms with chronic pain, and
(iii) modulating autonomous–dependent pain management.

The following discussion presents an overview of the core category and an explanation of each of the transitions.

11.2 STRIVING TO MAINTAIN WELL-BEING: ADAPTING TO CHRONIC PAIN

Striving to maintain well-being: adapting to chronic pain was elderly people’s response to their chronic pain. The intrusion of pain led them to adjust their lives to obtain an optimum level of wellness. The terms “striving to maintain well-being” and “adapting to chronic pain” denote processes. They interact with each other where one builds on and maintains the other, and together they comprise the core process identified in the study. In order to demonstrate this process, these two interrelated terms are discussed separately.

Strive is defined as to “make great efforts to achieve or obtain something” (McKean, 2005). *Maintain* refers to “keep [something] at the same level or rate” (McKean, 2005). *Well-being* denotes “the state of being comfortable, healthy, or happy” (McKean, 2005), or “general health and happiness” (*Oxford Advanced Learner's Dictionary of Current English*, 2007). These terms were identified as parts of the basic social psychological process the elderly people exhibited in response to their chronic pain. It was evident from the data that they adopted a process of striving to maximise their wellness and attempting to minimise their chronic pain. They put considerable effort into adjusting many aspects of their lives in order to meet their basic needs and maintain wellness.

The second feature of the core category is *adapting to chronic pain*. *Adapt* is defined as to change one’s ideas/behaviours in order to deal with the new situation successfully (Sinclair, 2001). Adapting to chronic pain indicates that elderly people modified and/or changed various aspects of their lives to adjust to chronic pain, despite its undesirable nature. The adaptation included their personal behaviours, expectations, used of pain relief treatment, and involvement in social activities. In order to live with chronic pain, many aspects were adjusted independently by themselves or with assistance from others.

Transition refers to “the process in which something changes from one state to another” (Sinclair, 2001, p. 1664). It “requires individuals to incorporate new knowledge, to alter behaviour, and, therefore, to change their definition of self in the social context” (Meleis, 2010, p. 108). Transitions can be categorised into three domains:

developmental,[142] situational,[143] or health–illness.[144] They are not separate or distinct individually; therefore, people normally deal with multiple transitions simultaneously (Meleis, 2010). Health–illness transition, from a state of relative wellness to a state of suffering chronic pain, was prominent in elderly people in the present study.

Process and change are among the universal properties of transitions, including change in identities, roles, relations, abilities, and behaviour patterns (Chick & Meleis, 1986; Meleis, 2010). Elderly people in this study experienced three transitions. These transitions required them to incorporate new knowledge and to alter their behaviours. After experiencing chronic pain, they modified their expectations; roles or participation in family, social, and religious activities; relationships; self-care and working abilities; behaviours; and dependence on others.

According to Chick and Meleis (1986), transition leads to four possible health related outcomes: restoration,[145] maintenance,[146] protection,[147] and promotion.[148] The transitions the elderly people in the present study experienced led to three out of these four possible health related outcomes (restoration, maintenance, and protection), which were unique to each individual. At a certain point in time, a few may have felt that they had achieved restoration of wellness to the same level as prior to their experiencing the pain. However, Kralik, Visentin and Loon (2010) and Bridges (2004) suggest that in some circumstances the movement and adaptation of transition contributes to change rather than a return to the state prior to transition. Similarly, analysis in the study indicated that the outcomes most elderly people experienced were maintenance and protection, rather than restoration. In this context, maintenance refers to maintaining a stable state of wellness even though they were suffering chronic pain.

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[142] Developmental transition occurs in the stage of growth and development, such as the transition from childhood to adolescence, or from adulthood to old age (Meleis, 2007, 2010).

[143] Situational transition happens when a change in life circumstances occurs, such as change from a non parental to a parental role (Meleis, 2007, 2010).

[144] Health–illness transition involves change from a state of wellness to another state, such as from wellness to chronic illness (Meleis, 2007, 2010).

[145] Restoration indicates the resumption of at least the same state that people experienced prior to the transition (Meleis, 2010; Shaul, 1997).

[146] Maintenance represents a stable state in which people are able to maintain a level of wellness regardless of having chronic illness (Meleis, 2010; Shaul, 1997).

[147] Protection refers to the requirement that people be taken care of by others in order to prevent further compromise to their overall well-being (Meleis, 2010; Shaul, 1997).

[148] Promotion refers to the ability of people to become involved in activities that enhance well-being in general (Meleis, 2010; Shaul, 1997).

Protection indicates that they needed to be cared for by others to delay or prevent deterioration in their well-being.

Striving to maintain well-being: adapting to chronic pain is identified from the data as the core category or process and meets the criteria suggested by Corbin and Strauss (2008). The core category explicates the main phenomenon of the study. It is a process that appears frequently over time and under different contexts and situations for the elderly people. It is an abstract concept that links with and overarches the other three categories and their properties and accounts for maximum variation in the phenomenon studied. At some stage, several analytical themes may help to link all the data together; however, the core category best captures the whole set of circumstances (Corbin & Strauss, 2008; Strauss, 1987). As a result, the core category is identified as a process that explains the variation in the data and links the three conceptual health–illness transitions of *undergoing wellness–illness change, coming to terms with chronic pain, and modulating autonomous–dependent pain management*. These transitions are interconnected and may occur in a series of sequential steps; however, there is a greater tendency for their responses to represent more than one step simultaneously, as illustrated in the following exemplar:

> Previously, I had no pain. My joints were swollen and painful … I felt pain a lot … I used various types of compresses, but I did not recover. My joints were in a severe condition. I could hardly move because of pain in the swollen joints, and I became bedridden. I used compresses because I stopped taking the herbal tablet ... Then I was told to try taking the herbal tablet [again]. After taking it [again], the swelling in my joints went down. I continued to take it [the herbal tablet] … I felt my body had got a high temperature, and I didn't know whether it was daytime or night time … I took one more tablet in the evening. Then my fever went away … The following morning, I could walk …. Since I have pain ... I question why I always have pain a lot …. "I'm just this old [not very old], I should be able to walk. Other people who are older than me, why are they still able to walk to many places? Why can't I do the same?"
>
> (I: 27)

This exemplar illustrates that the effect of pain is not static but can change, and the transitions are interrelated. For elderly people *striving to maintain well-being: adapting to chronic pain* entailed considerable effort to maintain their wellness. In the first transition, *undergoing wellness–illness change*, they recognised that the pain adversely affected their well-being to varying degrees. Their wellness changed abruptly or progressively from a state of wellness prior to suffering pain, to becoming very ill while having severe pain and other related symptoms. The change in need for treatment is also inherent in this transition. Their state of wellness then may change to being relatively well again after receiving effective treatment. In the second transition, *coming to terms with chronic pain,* they acknowledged that the pain affected their lives in general. It also motivated most of them to clarify their response to their pain and eventually accepted it as part of their life. In the third transition, *modulating autonomous–dependent pain management*, their autonomy in general and in pain management changed. The changes in their level of independence, in the efforts required to obtain pain treatment, and in decision making, reflect this transition.

11.2.1 First Transition: undergoing wellness–illness change

Experiencing chronic pain led elderly people to *undergo wellness–illness change*. Their state of wellness could change abruptly or progressively and was dependent on several influences, such as how much the pain affected their wellness, to what extent they could minimise the pain and its effect on wellness, how long it took for treatment to be effective, and to what extent they could access resources and receive support. On some occasions, they felt better than at other times, particularly when they achieved the best possible outcomes in striving to minimise the pain and its effect on their wellness. The maximum and minimum levels of well-being varied with each individual. The minimum level of wellness in one person may be higher than the maximum level in another. Some who suffered constant pain had comparatively less variation in their wellness status. Others experienced more variation in their wellness status: from relative wellness when pain free, to illness when pain was severe and persistent.

> When I got severe pain and cried out, she [my neighbour] ran to tell my younger brother [a school teacher] at school to come to see me. Then I got a painkiller injection. After I got the injection, all my pain had gone. I could stand up, have a conversation, and laugh. I could talk like how I am talking now.
>
> (I: 2)

In addition, *undergoing wellness–illness change* contributed to their need for treatment, and the pattern of need for treatment was unique to each individual. Those who perceived themselves as having severe illness needed treatment for their pain moreso than those who felt relatively well. Some faced a greater need for treatment at particular times and circumstances and less need for treatment on other occasions. However, some felt that their need for treatment increased gradually over time because the underlying cause of their pain was progressive. The need for treatment also changed within individuals. The type, dosage, and frequency of treatment required for a certain pain-related problem also varied, and was dependent on their state of wellness and other circumstances, as illustrated in the following exemplar.

> When I plan to go to the temple on the Buddhist holy day, [I take medications] so that I can sit down for the period of time to join in activities at the temple. When I am not going anywhere, I do not take medications.
>
> (I: 12)

11.2.2 Second Transition: coming to terms with chronic pain

The common approach, identified by most elderly people in the study, was to acknowledge the presence of pain and its effect on their lives, in general and in particular. They acknowledged that it was an unwelcome intrusion that adversely affected their physical, psychological, social, and spiritual well-being. The degree of acceptance varied within and between individuals and was dependent on several interrelated factors. On some occasions, many expressed difficulty in accepting the pain and its effect on their lives.

> My legs are not the same as before. I just go to some places close to my house. I cannot go far away. I cannot go everywhere I want like before. I have changed quite a lot. Previously, I had no symptoms … I did not feel different [unwell]; I could do everything easily. It is very hard to accept it [the change].
>
> (I: 5)

On other occasions, they were more accepting about their pain and its effects. For example, most associated the symptoms with dying and sought to come to terms with their chronic situation by being less intimidated by the threat to their life of the pain's underlying cause. Most convinced themselves that dying was a reasonable consequence of having pain.[149] They explained that dying was universal and an inevitable experience for all human beings. They also stated that life entailed suffering.

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[149] To some extent, Buddhist beliefs made the elderly people view their chronic pain as a normal part of life. Buddhists viewed human life and the world as 'Dukkha,'(suffering) (Dhamma Study and Support Foundation, 2009; Mahidol University, 2009). There are many sources of 'Dukkha,' including four stages of life: birth, older age, sickness, and death – that are universal and experienced inevitably by all human beings (Dhamma Study and Support Foundation, 2009; Mahidol University, 2009). The belief that older age and sickness are an inevitable part of life influenced the elderly people to accept their advanced age and chronic pain.

Individuals were born to deserve their own ‘karma’ from their previous life.[150] End of life meant that they had already paid back their ‘bad karma’ or sin; therefore, death was a welcome life event.

11.2.3 Third Transition: modulating autonomous–dependent pain management

As elderly people recognised that the pain compromised their wellness and began the process of coming to terms with their pain, they acknowledged that treatment was required to maintain their wellness, and this led them to enter the third transition *modulating autonomous–dependent pain management*. Similar to the other transitions, their autonomy changed along a continuum, and varied within and between individuals. These changes were related primarily to their overall level of independence; decision making; and effort required to obtain pain-related information and pain management resources, such as money, transportation, medicine and caregiver support.

After experiencing pain, their level of independence varied along a continuum, and it had a unique pattern of change for each individual. The state of wellness was the primary influence affecting these changes. Some who achieved effective pain relief and became relatively well were able to maintain their independence over time. Some became gradually more dependent on others because the pain’s underlying cause contributed to them becoming progressively unwell.

> The ability to move [my legs is gradually getting worse] …. Before this year, I could move [my legs] easily. This year, I have to use both my hands in order to be able to move [and I have needed more assistance from my children]. That’s why I think it [my illness] is gradually progressing … I think I’m getting older, and my illness continues to progress.
>
> (I: 1)

Generally, limited support and a preference to remain independent contributed to some maintaining or regaining their autonomy. Thus, some may be comparatively independent even though they were relatively unwell. They preferred to conduct activities on their own as much as possible, and were less dependent on others

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[150] Buddhists believe that individuals are born and reborn because of their bad deeds or sin. The ultimate goal for Buddhists is to be in ‘Nirvana’ or the Thai word ‘Nippan,’ where they are not reborn, but stay in the peaceful place happily (Keown & Prebish, 2007; Reynolds & Carbine, 2000). See Section 6.3.3 ‘Multiple illness belief systems’ Chapter Six ‘Basic social psychological problem: uncertainty about pain self-management,’ for more information.

regardless of their state of wellness. However, some who were relatively unwell became progressively more dependent on others, such as family members.

> When I carry a bucket of water, I feel pain immediately. I have water to drink now because I dragged the bucket here … I do not wait [for my children to do it for me]. Anything I [think I] can do, I try to do.
>
> (I: 10)

Similar to changes in level of independence, the ways in which the elderly people obtained pain-related information and treatment resources varied from intense seeking of pain treatment by themselves, entailing a great deal of effort, to receiving others' support, which required minimal effort. It was also evident that there was considerable difference in effort between individuals in obtaining, accessing, and using the same types of treatments. Some were more autonomous. They independently sought information, accessed treatment, and integrated treatment into their lives: "I went [by myself] to Chaturapak phiman [district capital] by motorcycle and parked my motorcycle at the police booth, and then I took the bus to see doctors at several places" (I: 4). Others were more dependent on other people, particularly family members, to obtain information and treatment: "[My children] prepare medications for me. They do almost everything for me, the only thing that they haven't done is taking a bath for me" (I: 2).

Apart from variations in the levels of independence and in efforts required to obtain pain treatment, decision making about pain management also changed. These decisions included whether to take, continue, or discontinue the treatments and what to expect from pain treatment. Most took others' opinions into account in making a decision about pain management. This ranged from making their own decisions, "My children call me to tell me that they want to buy something [for my pain], I do not take it. I told my children not to buy it for me" (I: 19), to accepting decisions made by others, "My children bought it (the herbal balm) and sent it to me. I apply it when I feel pain …. I do not have a massage. My children tell me not to have a massage during this period of time" (I: 18).

In addition, the level of interaction with practitioners varied from being active to passive. Some were actively involved in deciding their pain treatments, by requesting more information about their pain symptoms and the treatments. However, most were passive in these interactions, listening to and following practitioners' suggestions.

11.3 SUMMARY

This is the last of seven chapters presenting the findings of the study. In this chapter, the basic social psychological process or the core category, *striving to maintain well-being: adapting to chronic pain,* that elderly people used to self-manage their chronic pain was explicated. It described a process that represented the main phenomenon of the study and embraced other categories as well as contextual influences. They went through three categorical processes: *making sense of pain, seeking the most suitable treatment,* and *integrating treatment into everyday life*, in order to maintain their well-being. Four contextual determinants influenced their responses: *living in rural isolation, living in poverty, availability of support*, and *the quality of relationships with practitioners*.

Three transitions were embedded in the core category. Elderly people's responses to chronic pain reflected dynamic changes within and between the three health–illness transitions: *coming to terms with chronic pain, undergoing wellness–illness change,* and *modulating autonomous–dependent pain management*. The transitions were interrelated and could change in a forward or backward direction. Each pain experience compromised various aspects of their wellness. This required them to adjust various dimensions of their lives to maintain an optimum level of wellness by engaging in the process of *striving to maintain well-being: adapting to chronic pain*.

CHAPTER TWELVE

DISCUSSION

12.1 INTRODUCTION

In this chapter, an overall discussion of the study findings is provided and compared with other research findings and theoretical concepts. The overall theory is reiterated in the first section. Each category and its strategies are then discussed, followed by a discussion on the nature of self-management.

12.2 THE THEORY

The theory *striving to maintain well-being: adapting to chronic pain* explicates the study phenomenon of chronic pain self-management among elderly participants who lived in three rural communities in north-east Thailand. The theory illustrates the processes that the participants adopted to self-manage their chronic pain, through the inter-relationship of the defined categories: *Making sense of pain*, *Seeking the most suitable treatment,* and *Integrating treatment into everyday life*.

The categories' properties and dimensions make the explanation of the phenomenon possible (Strauss & Corbin, 1998). For example, *Seeking the most suitable treatment* represents the participants' attempts to identify the most effective treatment for their chronic pain that is feasible in their contexts at specific times. This category occurs frequently in the data and represents a component of the core category. *Seeking the most suitable treatment* is also linked conceptually with the core problem *uncertainty about pain self-management*. The properties of this category are underpinned by the participants' health seeking behaviours, which are influenced by their accumulated experience and beliefs. These properties include the effort involved in procuring treatment, with its dimensions ranging from minimal to exhaustive; the type of treatment, with its dimensions varying from traditional to Western-oriented; and the number of treatments sought, ranging from few to many.

The three transitions of the theory: *undergoing wellness–illness change, coming to terms with chronic pain,* and *modulating autonomous–dependent pain management* explain the varying responses of the participants. For instance, some adopt more independent roles in managing their chronic pain. Their decisions about, the search for, and the use of the pain treatment, are primarily self-initiated. Alternatively, others rely more on their caregivers regarding choice of pain treatment. This transition of the theory is also consistent with Kralik, Koch, Price and Howard's (2004) ascertain that self-management of chronic illness can be considered as structure and process.

The first transition *undergoing wellness–illness change* represents the effects of varying degrees of pain on elderly people's wellness, and is similar to Corbin and Strauss's (1992) *trajectory phasing*, which described different phases of chronic conditions, including *stable*, when the illness condition is under control, and *unstable*, when the illness is beyond control to some extent. It is also consistent with the findings of Douglas, Windsor and Wollin (2008), who reported 'pain is pervasive' and 'pain is always a factor in the equation' as two of the three themes emerging from a study of the phenomenon of pain experienced by individuals with chronic disabling conditions.

The second transition, *coming to terms with chronic pain* is consistent with Corbin and Strauss's (1992) chronic illness trajectory framework, which claimed that *coming to terms* is necessary to live with chronic conditions. The third transition *modulating autonomous–dependent pain management* is also consistent with Kralik et al.'s (2004) findings on chronic illness self-management, where one of their categories was 'managing the shift in self-identity.' The authors explain that the process of the shift in self-identity for a person with constant pain involved a change in their perception of self and included physical restrictions, dependence and control over pain management (Kralik et al., 2004).

These three transitional phases are consistent with Meleis' transition theory (Chick & Meleis, 1986; Davies, 2005; Meleis, 2010; Schumacher & Meleis, 1994) which describes transition as a movement from one life condition to another, involving process, ongoing within boundary, and its meaning to affected individuals. Elderly people in the present study experience a passage from having no pain to suffering chronic pain similar to Meleis's (2010) health-illness transition. Common properties of transition suggest by Meleis's (2010) include process, direction, and changes in identities, roles, relationships, abilities, and pattern of response. Similarly, the transition found in elderly participants involves a process of *striving to maintain well-being: adapting to chronic pain*, elderly people experience changes in their abilities, responsibilities, and interaction to others throughout this process in order to preserve their satisfactory level of wellness. In addition, this process requires elderly people to alter their behaviours and definitions of self.

According to Meleis's (2010) transition theory, conditions influence transitions are meanings, expectations, level of knowledge and skill, environment, level of planning, and emotional and physical well-being. In the present study, meanings of chronic pain and expectations to pain treatments are conceptualized as the contextual determinant of *quality of relationships with practitioners*. Level of knowledge and skill, level of planning, and emotional, physical and well-being, are discussed as the core problem of *Uncertainty about pain self-management* with a key contributing factor of *low health literacy*. Environment is indentified as the three contextual determinants: *living in rural isolation and living in poverty*. In addition, the elderly participants' expected outcome of chronic pain self-management is satisfactory level of wellness, which one of the three indicators signifying successful transitions (subjective well-being, role mastery, and well-being of relationships) suggested by Meleis (2010).

Limitations of Meleis's (2010) transition theory in the context of findings from the present study is that the theory describes mainly on the person who experiences transition with limited discussion about others who involve in these changes. In contrast to this, outcomes of the study reveals that availability of support is one of the four key contextual determinants and sources of this support are mainly family members and relatives.

The core problem *uncertainty about pain self-management* is consistent with Sofaer et al.'s (2005) findings in their study of chronic pain perception of elderly people, which reported that participants were uncertain about how to deal with their conditions. In the present study, the theory, which overarches the three categories, presents the process that elderly people use to solve the core problem. Their responses, highlighted in the three categories, are inter-related. The various properties of the theory provide a conceptual understanding of the chronic pain self-management processes adopted by participants. These properties include self-defined identity and wellness expectations, as well as levels of life adjustment, comprising that of self, of other people, and of life context.

The present theory possesses some degree of parsimony[151] in that it contains three categories overarched by one core process comprising three transitional phases. When elderly people encounter a problem (chronic pain), they try to resolve the problem within a certain context (*striving to maintain well-being: adapting to chronic pain*), by clarifying the problem (*making sense of pain*), finding the best solution (*seeking the most suitable treatment*), and applying the solution (*integrating treatment into everyday life*). These categories are similar to the three phases of illness management in north-east Thai villagers reported by Nuntaboot (1994), which comprised interpreting the illness situation, obtaining relatives' suggestions on prioritising multiple therapeutic methods and healers, and taking therapeutic action. The theory provides some precision of prediction[152] about the elderly people's response to dealing with their chronic pain. It may also explain self-management of similar chronic symptoms in persons with similar circumstances, in particular in socio-cultural contexts with limited information and resources because of residential isolation, financial difficulties, and low levels of literacy. This process provides guidance for health personnel to facilitate self-management of similar chronic symptoms in people within comparable contexts.

12.3 MAKING SENSE OF PAIN

The first category *making sense of pain* encompasses the way elderly people in this study tried to understand their chronic pain, and is influenced by pain experience and life philosophy. Attempts they made to understand their pain appeared frequently in the data. They sought to comprehend their chronic pain, using knowledge and skills accumulated throughout their lives. This is consistent with Corbin and Strauss's (1992) *trajectory projection* which suggested that each individual's insight towards chronic illness is unique and founded on their own knowledge, experience, word-of-mouth and belief. The strategy *asking questions* is also in harmony with the 'word-of-mouth' source of insight claimed by these authors. This strategy can be a key for self-management if helpful responses are obtained. For example, Gilbert and Hayes's (2009) study of communication and outcomes of visits between older patients and nurse practitioners showed that seeking more information about treatment by patients

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[151] Parsimony or power of theory is one property of theory, where a powerful theory consists of few assumptions or theoretical statements (Bacharach, 1989; Hage, 1972; Hubbard, 1995). See 'Chapter 3 Methodology,' for more details.

[152] Theory with greater precision of prediction provides better and more specific direction (Hage, 1972).

was associated with greater improvement in their mental health. However, elderly people in the present study received limited helpful responses from health personnel. It is evident in this study that some questions raised with health personnel were not addressed, and this is consistent with Pongsupap and Lerberghe's (2006a) report which showed approximately three-quarters of patients were successful in their attempts to ask questions of a physician but most responses were inadequate. This problematic situation occurred, in part, because of the short time provided for consultations, and perhaps because of inadequate numbers of staff in the study settings. In addition, the Thai traditional culture – which regards health personnel, especially doctors, as of higher status than participants – made them hesitant to ask further questions to clarify answers received.

Identifying pain related influences reflects the way participants self-monitor their chronic pain by observing it in relation to daily life. It may fit, in part, with the second category *seeking the most suitable treatment* if elderly people used this strategy to identify factors that made them experience less pain. However, this self-monitoring aimed to recognise these influences and clarify their condition rather than seek treatment.

McHugh and Thoms (2001) indicated that individuals with chronic pain wanted, but were not given, specific diagnoses for their pain symptoms. Similarly, the participants in the present study were unsure about the cause of their chronic pain. *Making causal assumptions and predicting prognosis* was a strategy used to understand their symptoms. The assumed causes were incurable, for example, the ageing process. This is similar to findings in the literature, which report widely that chronic pain is regarded as a normal part of advanced age by elderly and other people (Gignac et al., 2006; Hurley, Walsh, Bhavnani, Britten, & Stevenson, 2010; Sanders, Donovan, & Dieppe, 2002; Tse, Pun, & Benzie, 2005a). Several studies suggest that elderly people have fewer pain inhibition responses[153] than younger people (Edwards, Fillingim, & Ness, 2003; Riley, King, Wong, Fillingim, & Mauderli, 2010; Wijk & Veldhuijzen, 2010), which may help to explain the belief that pain in elderly people is normal. The association between older age and chronic pain is also reported frequently in the

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[153] Pain sensation can be reduced by pain inhibitory systems. Impairment or deficiency of these was found to be associated with chronic pain (Audette & Bailey, 2007; Wijk & Veldhuijzen, 2010).

literature and there is a link between chronic pain and the ageing process in the present study. Musculoskeletal pain was the most common type of pain described, and this can be explained by the ‘wear and tear’ theory of ageing introduced by August Weismann in 1882 (Aigner, Rose, Martin, & Buckwalter, 2004; Moody, 2006), which explained that body systems are damaged or ‘wear out’ after being used over time, contributing to defective functioning. However, many researchers claim that chronic pain is not a normal part of the ageing process (Forrest, 1995; Sofaer et al., 2005; Weiner, 2007) and health personnel should not simply regard chronic pain as a normal part of the ageing process because it may reduce their attempts to provide more effective pain treatment and will reduce chronic pain self-management among elderly people (Gagliese, 2009; Weiner, 2007).

The belief in an incurable cause for their chronic pain may compromise the effectiveness of elderly people’s self-management by delaying and/or preventing them from seeking treatment, which results in unnecessary pain and suffering, and/or deterioration of the condition. For example, Treharne et al. (2008) reported that the baseline perception of rheumatoid arthritis as being uncontrollable, predicted greater fatigue after one year of experiencing the condition. Sofaer (2005) suggested that elderly people desire independence and control over chronic pain while living with it. The perception that their chronic pain is incurable diminished their sense of control and belief in their ability to control the situation. Bandura (1994) used the term ‘self-efficacy’ to refer to an individual’s belief about his or her ability to control a situation. Several researchers also claim that self-efficacy promotes effective chronic pain self-management (Chaikul, Sucamvang, & Eamjoy, 2006; Gallagher et al., 2008). Moreover, social persuasion can enhance an individual’s self-efficacy, which in turn, helps reduce stress, negative emotions and misinterpretation of the physical condition (Bandura, 1994). Negative emotions from suffering incurable disease (perceived by elderly people and confirmed by social expectation) can contribute to low self-efficacy and reduce the effectiveness of self-management. In addition, self-efficacy is reported to be a key mediator in the association of life satisfaction with disease severity, and with social support (Pattayakorn et al., 2010). In other words, elderly people’s life satisfaction or well-being can be minimal if they have low self-efficacy, even though their chronic pain is not severe.

Assuming that the ageing process is a cause of chronic pain may help elderly participants in the present study maintain self-efficacy and sense of control over their symptoms. Numerous studies provide possible reasons for assuming chronic pain is a normal process in elderly people. For example, some individuals with chronic illness deal with the condition by viewing and accepting their condition as normal (Sanders et al., 2002). Elderly people prefer to present themselves as ageing well rather than showing a negative stereotype (Sanders et al., 2002), whereas those with chronic pain feel stigmatised when they attend pain clinics (Holloway, Sofaer-Bennett, & Walker, 2007). In Aldrich and Eccleston's (2000) study on making sense of everyday pain, participants tended to associate pain with negative meanings, in particular, malfunction, alien invasion and abuse. This is consistent with the present study where two statements mentioned about the pain were 'Lambaak,' meaning physical hardship in life, and 'Tor-ra-man,' implying long-term torment and where no participants reported positive experiences of pain such as self-growth or spiritual growth.

Rural north-east Thai villagers believe that illness can result from the 'Law of Karma' (Auitrakul, 1996; Nuntaboot, 1994). Similarly, sinful actions from the past are another belief about the cause of pain identified in the current study. This assumed cause of pain is different from the incurable assumed causes discussed previously in that it is believed to be amendable. Performing good deeds by, for instance, helping others and practising Dharma, can eliminate or minimise suffering from sin. The elderly participants who believed their pain was initiated by the 'Law of Karma' were more accepting about their pain and were hopeful that it could be diminished by following Buddhist practises. Many reported that they practised religious activities (prayer, meditation, practice Dharma, and helping others), in part, in order to recover from pain. Buddhist practices are reported as part of chronic illness self-management in other Thai studies (Bonadonna, 2003; Lundberg & Rattanasuwan, 2007). In addition, several Thai studies claim that individuals with stronger Buddhist beliefs gained better outcomes from chronic condition self-management than those with weaker Buddhist values (Ross, Sawatphanit, & Suwansujarid, 2007; Sowattanangoon et al., 2008), and researchers indicate that Buddhist practices increased self-efficacy (Salmon et al., 2004; Uga, Zilli, Scavelli, & Leonardi, 2010). Practising Buddhist activities might help increase self-efficacy of the elderly people in the present study, which in turn, may facilitate their chronic pain self-management.

Cultural influences on elderly people's beliefs about chronic pain can contribute to health personnel's difficulties in comprehending their condition. Patel, Peacock, McKinley, Carter and Watson (2008) show how general practitioners reported that it was complicated to make sense of chronic pain in South Asian people living in the United Kingdom because their understanding of the condition was connected with their cultural views. General practitioners sometimes thought that the cause of pain may be related predominantly to psychosomatic problems (Patel et al., 2008). In addition, the importance of knowledge about clients' cultural beliefs for the delivery of quality care for chronic illness has been reported widely (Inouye et al., 2011; Kleinman, 1978; Phutthikhamin, 2008; Sanders et al., 2002; Song, Lee, & Shim, 2010; Sowattanangoon et al., 2009; Sritanyarat, 1996; Swerissen et al., 2006). In the present study, traditional practitioners expressed greater understanding of people's cultural beliefs than Western-oriented practitioners. The latter showed their understanding to some extent; for example, some explained the cause of illness to participants in traditional terms. However, a few elderly people were reluctant to seek pain treatment from Western-oriented practitioners.

12.4 SEEKING THE MOST SUITABLE TREATMENT

The second category, *seeking the most suitable treatment*, illustrates the processes elderly people used to identify the treatment that best suited their pain and life circumstances. The study found three main considerations for elderly people when they sought treatment and made decisions about their choices of pain self-management: accessibility, affordability, and acceptability. These findings are consistent with a study by Goudge, Gilson, Russell, Gumede and Mills (2009) that factors moderating help-seeking in all age groups were affordability, availability and acceptability; and a Thai study by Petkong (2007) that suggested five factors as determinants of help-seeking from health services; namely, availability, accessibility, accountability, alternatives, and acceptability.

Choice of pain treatment may be whatever was accessible, rather than what was available for that particular condition. Some pain treatments, such as knee replacement surgery, were available in Thailand but were not accessible to these elderly participants. Accessible choices were limited because of their life context, in particular poverty and rural isolation, and these factors made this population vulnerable. The term ‘multi-faceted vulnerability,’ coined by Radley, Hodgetts and Cullen (2005), refers to vulnerability due to several factors that diminish autonomy and marginalise life (Liamputtong, 2007), and this may be representative of the elderly participants’ condition in the present study. Five factors contribute to this vulnerability: older age, chronic illness, rural residential location, region of the country, and poverty (Liamputtong, 2007). The participants’ rural living circumstances with its isolation from health services, combined with poverty and exacerbated by minimal education, contributed to limited access to pain-related information and treatment. Within these limitations, some used only Western-oriented or Traditional Medicine; however, most used more than one medical system. These combined approaches can be regarded as medical pluralism (Wade et al., 2008), which refers to “the co-existence in a society of differing medical traditions, grounded in different principles or based on different world-views” (Gabe, Bury, & Elston, 2004, p. 183). It is found commonly because there is no single treatment system that is suited completely to all social contexts (Chuengsatiansup, 2005; Johannessen & La'Za'r, 2006).

Traditional Medicine played a vital role in elderly participants’ search for suitable treatment. Several reasons can be proposed for the use of traditional treatment. First, Traditional Medicine is used globally for chronic pain (Cheung, Wyman, & Halcon, 2007; Kim, Han, Kim, & Duong, 2002; Rosenberg et al., 2008) and in Thailand (Kamonpech, Pathumanont, Mekprasaan, Phermphiphat, & Prachasraisauradech, 1998; Lundberg, 2007). Second, treatment in Thai health care had been performed mainly by using herbal remedies until Western-oriented treatment was introduced to the country in the late nineteenth century (Cohen, 2007). Traditional Medicine is still used widely especially in rural communities, and Thai cultural belief is based on spirit, Brahma and Buddhism which cannot be separated from each other (Chuengsatiansup, 2007; Society and Health Institute Thailand, 2005). It is evident that some elderly people in the present study were reluctant to seek Western-oriented pain treatment because they believed that the cause of their pain may be related to another cause, in particular, to spirits, and that it was more amenable to treatment by Traditional Medicine. Third, rural isolation combined with poverty resulted in limited access to Western-oriented pain treatment, whereas Traditional Medicine is an alternative choice with greater accessibility.

Elderly participants in the present study used Traditional Medicine, especially various kinds of herbs. Knowledge about their efficacy was passed on by storytelling, yet interestingly scientific experiments have shown that many of these herbs have analgesic effects (The Natural Medicines Comprehensive Database, 2010). It was also apparent that locally prepared herbs were much cheaper than Western-oriented treatment. Nevertheless, some manufactured Traditional Medicines were much more expensive, and a complete course of treatment could be costly. There has been growing encouragement for the use of Thai Traditional Medicine within the country's health care system, along with the establishment of a national policy and formation of an organisation for Traditional Medicine practitioners (WHO, 2005). However, there is evidence in the present study that some difficulties remain. For example, elderly people purchased manufactured herbal medicines for pain treatment instead of preparing these herbs by themselves or family members, which would be less costly. If practical instruction was available for them, it may be possible to plant the herbs in their land and use similar amounts to those in manufactured herbs instead of buying them. For example, if they could be informed that one piece of turmeric is equal to one tablet they could use it instead of paying for tablets. Promoting and guiding the use of these herbs by health personnel who have practical knowledge about them can facilitate self-management of chronic pain by elderly people living in rural communities.

Traditional Medicine tends to have fewer harmful effects than Western-oriented Medicine but is less controlled by the government than Western-oriented Medicine. Some herbal medicines have steroids (and/or other substances) added to enhance their potency which can be harmful to users (Sukhsamran, 2007; Thai Health Promotion Foundation, 2008). In the present study, considerable amounts of steroid substances were found in samples of herbal tablets used by elderly participants who also reported that some of their 'relatives' died from taking the herbal tablets for a period of time. Nevertheless, some persisted in using these herbal tablets as their main pain treatment even though they had been warned against using them by others. This is explained by the fact that they had no better pain treatment accessible to them.

Abundant access to Traditional Medicine also contributed to the difficulties of elderly people in self-managing chronic pain. It was evident that while major efforts were required to obtain pain treatment from health personnel, much effort was also needed to refuse traditional pain treatments offered to them. This is consistent with Liu and Doucette's (2008) findings that direct-to-consumer advertising in promoting prescription medications in the United States can complicate people's choice of pain medication, but also lead them to seek further information and more communication with their health care providers because they are cautious about the quality of information (Liu & Doucette, 2008). Conversely, participants in the present study had limited access to reliable information about Traditional Medicine provided in their homes or villages, despite the quantity of products and information offered to them via various sources (such as 'relatives' and direct sellers) and pathways (such as by face-to-face and radio broadcast).

Another alternative pain treatment for elderly people that is more accessible than Western-oriented Medicine is over-the-counter medication. A great variety of pain medication is accessible over-the-counter without prescription (Paninchukunnath, 2007). Researchers and practitioners also report widespread availability and utilisation of over-the-counter medication by rural North-East Thais (Bryant & Prohmmo, 2001; Panyawattananukul, 2003) and rural Thais (Sringernyuang, 2000). *Ya Chud* is one common over-the-counter medication used in rural communities that has a significant possibility of harmful side effects (Ampanwong, 2000; Auabandit et al., 2001). In the present study, some elderly people used *Ya Chud* as their major treatment for chronic pain, which when sampled was found to contain steroids. The most common cause of steroid abuse is associated with pain treatment (Ratchatanawin, 2007) and one study reported that patients with knee osteoarthritis always used *Ya Chud* as a common painkiller because they lacked knowledge about its harmful effects (Suppasan, Wannapornsiri, Suntayakorn, & Siripornpibul, 2007). The elderly people in the present study expressed awareness of *Ya Chud*'s potential to harm. Some showed bruises on several parts of their bodies that resulted from bleeding tendency and some mentioned that their neighbours experienced the same symptoms after taking *Ya Chud* but continued using these medications. This is consistent with Auabandit's (2001) report on a survey of musculoskeletal pain and management in a rural North-East community, which showed that most participants received information about the harmful effects of *Ya Chud* from broadcast media and health personnel, but they still persisted in taking it to relieve pain because of its easy accessibility, low cost, and convenience.

The affordability of treatments is a significant issue. Elderly participants lived in poverty and already found it difficult to meet their basic needs and were therefore very cautious about incurring additional expenses for chronic pain treatment. It was evident that many who had visited private clinics eventually stopped visiting them because of being unable to afford the fees, regardless of the effectiveness of pain relief received.

Na-Ranong (2005) reports that despite the Universal Coverage Health Scheme helping to decrease health expenses to some extent, some people accessed other health facilities that required payment, because of long waiting times and uncertain service quality at public health clinics. While the scheme helped to reduce the burden of chronic pain expenses for the elderly participants in the present study, there were often other considerable costs involved, particularly transportation fees. The time involved was also significant, with travelling and long waiting queues. Pongsupap and Lerberghe (2006a) reported that waiting times for consultation with physicians at public hospitals, private hospitals, and private clinics were approximately 83, 23, and 18 minutes, respectively. In the present study, however, waiting times were longer, with elderly participants reporting around two hours at public hospitals, and the researcher observing waiting times of almost two hours at a private hospital and around one hour at a private clinic. For adult children who accompanied them, this period of time represented a lost opportunity to earn money from work.

Many elderly people resorted to using other pain treatment, including Traditional Medicine, over-the-counter medicine, and/or lay-informed (self-initiated) treatment. Several high cost treatments, in particular surgery, were not considered. Other expensive treatments were scrutinised thoroughly in relation to their effectiveness. Paddy fields are regarded as essential for life and as property inherited from ancestors. Families are therefore expected to conserve these assets for as long as possible (Anurak, 2007). Because chronic pain had a great impact on their well-being, some were willing to sell paddy fields to fund pain treatments that were considered beneficial and could justify losing their heritage.

The aspect of acceptability involves satisfaction with the quality of treatment itself and with treatment providers. Elderly people tended to choose treatment that was effective for their pain in the short- or long-term; user-friendly; and with acceptable, tolerable, and/or manageable adverse effects. Some found Traditional Medicine more effective than Western-oriented Medicine and identified the traditional approach as their most suitable pain treatment. In addition, some treatments were regarded as unsuitable because they were too complicated to use, highlighting the importance of providing pain treatment with user-friendly properties.

Herbal tablets and *Ya Chud* that contain steroids were widely regarded as dangerous medicines (Methapatra, 2010), but the preferred pain treatment of some elderly people. This may be because the harmful side effects were acceptable given the medicine's effectiveness in reducing suffering from chronic pain. Some other pain treatments that produced troublesome side effects are more likely to be tolerated if elderly people know in advance that the side effects will occur and then diminish over time. This demonstrates the significance of distributing information about side effects of the treatments when giving prescriptions. Some severe side effects of pain treatment were considered to be acceptable, whether or not elderly people were informed in advance, because they were manageable. Participants who burned themselves many times after applying herbal hot compresses continued to view them as suitable pain treatment because the burned areas healed with prompt assistance from health personnel and caregivers. Advice from health personnel also helped them prevent this side effect. This highlights the importance of continuing care from health personnel in facilitating chronic pain self-management for elderly people.

Participants expressed appreciation of practitioners who could be trusted, and were reliable, sincere, and honest. They were more satisfied with treatment providers who expressed concern for them, listened to their problems about pain management, and facilitated their self-management. They expected practitioners to be friendly and to treat them with respect. Similarly, Lori, Yi and Martyn (2011) reported that provider characteristics desired by patients included demonstrating quality communication, providing continuity of care, treating them with respect, and delivering compassionate care. Respect from providers towards patients is an important feature of enhancing patients' satisfaction (Lori et al., 2011; O'Malley, Forrest, & O'Malley, 2000; Teh et al., 2009). While health personnel, in particular physicians, are traditionally held in high regard in Thai culture (Nuntaboot, 1994; Pongsupap & Lerberghe, 2006b), elderly people in the present study also expected to be respected, and expressed disappointment when personnel did not do so. This was more evident in the communication styles of personnel, where elderly people complained that some spoke to them impolitely.

Trust plays a vital role in patient–provider relationships and patient satisfaction (Benkert, Hollie, Nordstrom, Wickson, & Bins-Emerick, 2009), which is important in successful delivery of health care and effective management of chronic illness (Porter, Chuma, & Molyneux, 2009; Sheppard, Zambrana, & O'Malley, 2004). Sheppard et al. (2004) suggested that factors contributing to patients' trust of providers included continuity of the patient–provider relationship, effective communication, demonstration of caring and perceived competence. The major influences on mistrust of health personnel among elderly people in the present study were miscommunication, provision of inadequate information,[154] and/or lack of continuity of care in public health services. They also reported feeling they were being discriminated against when they saw health personnel provide more treatments to others.[155]

Clients also expect that practitioners will listen to and be concerned about them (Frantsve & Kerns, 2007; Matthias et al., 2010; Slade, Molloy, & Keating, 2009; Upshur, Bacigalupe, & Luckmann, 2010). Elderly people in the present study expressed satisfaction with practitioners who showed concern about them and who listened to their problems about pain management. However, these attributes were more evident in traditional than in other health practitioners. Research suggests that patient satisfaction with chronic pain treatment is not merely about pain relief (Hirsh et al., 2005), but also about patients feeling that treatment helps improve their participation in daily activities (McCracken, Evon, & Karapas, 2002). Several participants in the present study reported that their pain treatment needs were not fulfilled when practitioners advised them to stop or limit their daily activities.

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[154] See Section 9.3.5 'Evaluating practitioners' Chapter Nine 'Seeking the most suitable treatment,' for more information.

[155] See Section 9.3.5 'Evaluating practitioners' Chapter Nine 'Seeking the most suitable treatment,' for more information.

12.5 INTEGRATING TREATMENT INTO EVERYDAY LIFE

Holman, Lorig and Laurent (2006) identified three skills necessary for effective self-management of chronic illness, two of which were skills to deal with the illness and skills to continue normal life. The third category in the present study illustrates how elderly people used these two skills. *Integrating treatment into everyday life* highlights the ways in which they incorporated selected pain treatments into their usual daily living. While some found it difficult to integrate these treatments, others were able to do so. The factor required to perform this integration was self-care ability. A Thai study by Jitapunkul, Krungkraipetch, Kamolratanakul and Dhanamun (2001) reported that the proportion of elderly people who were dependent in relation to self-care abilities of daily living was 5.9%. In the present study, two elderly participants depended on others to carry out ADLs, such as moving around the house. These two did not report difficulties integrating treatment into their lives because they received good support from family members. Support influences all three categories and is therefore discussed in overall self-management, rather than as a factor affecting this category.

The strategy *incorporating treatment into daily activities* was used by elderly people to make pain treatment a part of their everyday life. Similarly, medication management and following physicians' recommendations are regarded as aspects of chronic illness self-management by researchers such as Clark et al. (1991; 1988), Barlow et al. (2002) and Holman et al. (2006). In the present study, elderly people who used Western-oriented Medicine for self-managing chronic pain usually took this medication in a similar way as for treatment of other chronic diseases, such as taking it at meal times, bed time, or when they experienced considerable pain. This is consistent with the findings of Branin's (2001) study on the role of internal and external memory strategies[156] in medication adherence among the elderly, which revealed that elderly people used internal memory strategies more often than external strategies and

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[156] Internal memory strategies involve the use of mental techniques to enhance memory performance, in particular relating medication time to other routine daily activities. External memory strategies involve the use of physical prompts in the environment or external memory aids to promote memory performance, such as alarm clocks, calendars, notes, or pill organisers (Branin, 2001; Kliegel & Jäger, 2006).

preferred event-based over time-based[157] medication use. Similarly, those who used Traditional Medicine also incorporated their treatment into routine activities.

Where the side effects of the most suitable treatments required elderly people to take steps to reduce these effects, the strategy *minimising adverse effects of treatment* was used in order to continue using the treatments. A decrease in medication dosage was one self-initiated method some used to minimise adverse effects of Western-oriented pain treatment. This is consistent with the findings of Hutchison, Jones, West and Wei (2006) on medication management by community-living elderly people, which reported that one-quarter of respondents omitted medication or cut doses in half. The purpose of reducing side effects may help explain this scenario. Some may have assumed that their pain medications had similar side effects to other pain medications; for example, the most common pain medications used are the NSAIDs group, which cause gastro-intestinal irritation. However, side effects can be minimised if these medications are taken immediately after a meal with plenty of water. Elderly people who took pain medications with less gastro-intestinal irritation, such as paracetamol (Sweetman, 2009), also reported taking painkillers according to instructions for NSAID group usage. For traditional pain treatment, several used lay-informed or self-initiated methods; for example, self-adjustment of doses for herbal tablets, applying another piece of cloth under the hot herbal compress and moving it frequently to prevent burns from the compress, and adding other better smelling and tasting herbs into the painkiller herbs. The present study found minimal involvement of health personnel in helping elderly people minimise side effects of pain treatment beyond providing wound care for burns from hot compresses and reminding them to be careful when using them.

Elderly participants used three approaches in the strategy *maintaining optimal health status,* including *setting realistic goals and adjusting roles, preserving health/promoting general health status,* and *managing co-existing symptoms. Setting realistic goals* can be regarded as a component of self-management for chronic illness (Clark et al., 1991; Shaul, 1997), or as a factor enhancing effective self-management

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[157] Event-based memory tasks are activated by particular events. Time-based memory tasks are not triggered by contextual cues and require individuals to respond at specific times. The former is viewed as requiring less mental effort than the latter (Branin, 2001).

for chronic illness (Barlow et al., 2002). In the present study, at the beginning of their chronic pain experience elderly people aimed to be pain free and regain their ability to work; but eventually they reduced this goal to having tolerable pain and maintaining their ability to perform self-care only. This realistic goal setting indicated acceptance of chronic pain. Several researchers describe such acceptance as occurring when individuals acknowledge that the symptoms will continue and reduce unsuccessful attempts to control pain, focusing more on engaging in essential activities (Esteve, Ramirez-Maestre, & Lopez-Martinez, 2007; McCracken, Vowles, & Eccleston, 2004; Viane, Crombez, Eccleston, Devulder, & De Corte, 2004). It also illustrates the second transition *coming to terms with chronic pain* of the core process *striving to maintain well-being: adapting to chronic pain*.

Miles, Curran, Pearce and Allan (2005) reported that individuals with chronic pain used four coping patterns, including assimilation, accommodation, confrontation, and subversion. In the accommodation pattern, individuals accepted that their chronic pain contributed to them facing three constraints (on their mobility and social interaction, on activities they could do, and on what they could be in their lives) and redefining their normal life (Miles et al., 2005), which is similar to setting realistic goals in the present study. Elderly people in the present study went through all four coping patterns, but eventually used the accommodation pattern by setting goals that were possible for them while having these constraints. Buddhist beliefs played a vital role in encouraging them to accept pain and be more realistic with their life goals. Their chronic pain self-management was facilitated by setting realistic goals, which is similar to Esteve et al.'s (2007) findings that pain acceptance was associated with functional status. In addition, Campbell and Cramb (2008) indicated that the main differences between people with limited and better access to health services were adaptation to and acceptance of their pain. The former groups attempted to live with pain, rather than to alleviate it, possibly due to limited access to pain treatment. Similarly, in the present study the participants' goal setting was limited by access to health care services. For example, those who could not access an operative procedure for treating the underlying cause of pain set goals to maintain their current level of self-care or have this decrease slowly when the disease progresses, rather than to increase the level of self-care.

Adjusting roles was used by elderly people to maintain everyday life activities despite limitations imposed by chronic pain. This finding is consistent with other research (Barlow et al., 2002; Clark et al., 1991; Corbin & Strauss, 1992; Holman et al., 2006). For example, Clark et al. (1991) reported that adapting to work was a strategy used by individuals with different chronic illnesses for self-managing their conditions, and Corbin and Strauss (1992) argued that adaptation to illness was essential in maintaining everyday life activities.

In the present study, the participants' role adjustment was influenced primarily by support from family members and 'relatives.' This finding is similar to that of McHugh, Silman and Luker's (2007) where individuals with osteoarthritis changed their roles and received assistance from families in managing their normal life. It is apparent that those with limited support found it harder to adjust their roles. ADLs and IADLs are disability indicators that have been used widely in determining elderly people's ability to live independently (Amnatsatsue, 2002; Crimmins, Hayward, Hagedorn, Saito, & Brouard, 2009; Senanarong et al., 2003; University of Iowa Health Care, 2008). Elderly people in the present study needed minimal assistance to carry out basic ADLs, but more help in performing IADLs, especially preparing meals. It was evident that some had pain that flared up during or after performing IADLs, but they had to continue because of limited support from others.

As people grow older they may seek diffferent ways of maintaining their health. Ways of healthy ageing reported by northern Thai villagers in a study by Danyuthasilpe, Amnatsatsue, Tanasugarn, Kerdmongkol and Steckler (2009) included several behaviours, such as eating properly, taking exercise, and accepting support from others. Elderly people in the present study tried to maintain good health through paying careful attention to their diet, medication taking, activity, and rest. Regarding diet, where Danyuthasilpe et al. (2009) reported that elderly informants preferred organic products, food prepared at home, and their own freshly caught fish, over food from the market, elderly people in the present study also reported that they avoided consuming farmed fish that may contain unneccessary chemical substances. In addition, they reported that they used supplementary foods when they could afford them. These included calcium supplements, in particular milk high in calcium; and traditional tonics, such as bird's nest. They also tried to be as selective as possible with medication. Some reported avoiding manufactured traditional remedies, whereas others reported keeping away from Western-oriented medication. In relation to activity and rest, they included exercise, undertaking activities slowly, and ensuring that they had enough rest and did not work too hard or too quickly, with the primary aim of avoiding strain on their bodies. Health personnel helped them mainly by encouraging exercise.

Apart from managing chronic pain, participants also had to manage co-existing illnesses. The two most common illnesses were hypertension and diabetes, with one-fifth reporting that they suffered from hypertension and one-fifth experiencing diabetes, which is consistent with Hanucharurnkul et al.'s (2007) and Wutthisomwongkul et al.'s (2008) reports on the provision of medical services for Thai elderly with chronic illnesses. In addition to musculoskeletal pain, which is the second most common problem, hypertension/heart disease and diabetes are the two most common chronic illnesses among primary care patients (Hanucharurnkul et al., 2007). Townsend, Hunt and Wyke (2003) indicate that patients with multiple morbidities reported that management of their illnesses facilitated and prevented engagement in social roles. Likewise, for elderly people in the present study, managing their co-existing illness was interrelated with managing chronic pain. The effects of one illness sometimes hindered management of other complaints. For instance, chronic pain compromised their mobility and made it more difficult to keep follow-up appointments for co-existing illnesses. At the same time, co-morbidities prevented them from using certain pain treatments. Nevertheless, several elderly people who suffered diabetes reported that they asked for pain treatment medications when they had their diabetes check-ups every one or two months. Some received the medications as requested, whereas others were informed by health personnel that they had already used many medications and would need to seek additional pain treatment from other sources.

12.6 NATURE OF SELF-MANAGEMENT

12.6.1 Health beliefs

Medical pluralism can be used to explain the health beliefs of elderly people in the current study. They understood and self-managed their chronic pain and other health problems based on various beliefs, including traditional and Buddhist, Western-oriented medicine, and lay-informed beliefs (based on life experiences and storytelling). This is consistent with Kleinman's (1978, 1980) explanation of health care as a local cultural system, comprising three overlapping sectors: popular, professional and folk. The popular part includes individual-, family-, social-, and community-based care, which is similar to the lay-informed influence on chronic pain self-management in the present study. The professional sector refers mainly to Western-oriented medicine; and the folk domain is related primarily to Traditional Medicine, consisting of a sacred dimension, such as holy water, and a secular dimension, such as herbs and acupuncture. Medical pluralism used by elderly people in the current study is consistent with the findings of Nuntaboot (1994) and Chanprasit, Lertpoonwilaikul, Pothiban, Panuthai and Sucumwang (2005).

Many studies have indicated that an individual's beliefs can predict self-management and other health behaviours (Horne & Weinman, 1999; Iihara et al., 2004; Kaewpan, Kalampakorn, & Luksamijarulkul, 2007; Menckeberg et al., 2008; Neame & Hammond, 2005; Nicklas, Dunbar, & Wild, 2010; Shiyanbola & Farris, 2010). In the present study, it was evident that elderly people's chronic pain self-management was influenced by health beliefs accumulated from their culture, life experience, and health information. The influence of culture on their health beliefs, which affected the way they self-managed their chronic pain, is consistent with the definition of 'culture' as "learned, shared, and transmitted values, beliefs, norms, and life ways of a specific individual or group that guide their thinking, decisions, actions, and patterned ways of living" (Leininger, 1991, p. 47). Life experience that influences elderly people's health beliefs is related predominantly to their own and/or others' health problems and treatments. One example is 'doctor shopping' behaviours in the literature (Baldacchino, Gilchrist, Fleming, & Bannister, 2010; Sato, Takeichi, Shirahama, Fukui, & Gude, 1995), and the strategy '*Using trial and error*' adopted in the current study.

Elderly people's use of Traditional Medicine resulted from health beliefs gained from cultural viewpoints, combined with experience of their own and/or others' health problems, together with available health information. This finding is consistent with Kleinman's (1980) of cultural influence on health beliefs and practices; in particular, use of traditional Chinese medicine in Chinese communities, Ayurvedic medicine in

Indian society, and Galenic Arabic medicine in Muslim countries. These beliefs persist despite migration, so that not only Thais living in Thailand but also those in other countries, such as Sweden, adopt health care practices based, in part, on Thai Traditional Medicine, especially the use of herbal medicines (Lundberg, 2007).

The participants in the present study believed that the causes of chronic pain included cancer, the ageing process, heredity, physical hard work, and the 'law of Karma.' These beliefs are similar to Helman's (2000) lay theory model of illness causation that suggested lay people draw on three systems for explaining the causes of illness, namely biomedical, personalistic and naturalistic causes. In the current study, cancer and heredity can be categorised as biomedical factors, 'law of Karma' can be classified as a personalistic factor, while the ageing process may be regarded as a naturalistic cause. Elderly people's health beliefs about Western-oriented Medicine developed from their experiences of using this treatment type, from interaction with health personnel, and from word-of-mouth from families and 'relatives,' together with limited access to health information, in a context where health literacy is crucial.

12.6.2 Health literacy

Health literacy refers to "individuals' ability to understand their healthcare issues and effectively care for themselves in the healthcare system" (Cutilli, 2007, p. 43), or "a combination of cognitive skills, knowledge, and experience attained throughout the life span" (Wagner, Steptoe, Wolf, & Wardle, 2009, p. 873). It is an important predictor of an individual's physical and mental health. Wolf, Gazmararian and Baker (2005) reported that elderly people in the United States with low health literacy had poorer physical and mental health, more difficulties with ADLs and IADLs, greater limitations on activity, fewer achievements, and pain that interfered with normal work activities compared with individuals with adequate health literacy. Similar results were suggested by Kim (2009), indicating that elderly Koreans with minimal health literacy reported higher rates of arthritis and hypertension, greater limitations on activity, poorer health status, lower levels of physical function and greater pain. Several researchers have claimed that greater health literacy is associated with better health actions, in particular access to and utilisation of health care, patient–provider interaction, and management of illness(es) (Paasche-Orlow & Wolf, 2007; Wagner et al., 2009), and is necessary to learn, comprehend, and apply effective self-management (Mancuso & Rincon, 2006).

A review by Cutilli (2007) suggested an association of limited health literacy with older age and low education. This claim is supported by numerous studies (Cho, Lee, Arozullah, & Crittenden, 2008; Paasche-Orlow, Parker, Gazmararian, Nielsen-Bohlman, & Rudd, 2005; Rudd, 2007; von Wagner, Knight, Steptoe, & Wardle, 2007). Other factors contributing to inadequate health literacy were lower income, manual labour occupation, and poor physical and/or health status (Cutilli, 2007). Elderly people in the present study were affected by these five influences (older age, low education, low income, manual labour occupation, and compromised health status), which in turn, hindered their chronic pain self-management. They obtained minimal pain-related health information from printed materials, such as health education pamphlets, to guide self-management.

Rajda and George (2009) suggested strategies for health personnel to improve health outcomes for elderly people with low health literacy, particularly identifying literacy problems and including caregivers during consultations. Some caregivers of the elderly people in the current study hesitated to be involved in consultations with health personnel. This was attributable, in part, to the Thai cultural practice (in particular, of rural Thais) of reverence to health personnel; hence, these caregivers did not feel empowered to enter the consultation room without overt permission. Support and encouragement of caregivers to become more actively involved in consultations with health personnel could help prevent problems that resulted from low health literacy. Furthermore, Wister, Malloy-Weir, Rootman and Desjardins (2010) indicated that in addition to education level, activities such as reading for self improvement, leisure pastimes, personal communications, and volunteerism helped enhance health literacy in older people. They suggested that these activities may help enhance reading and cognitive skills, which in turn foster health literacy (Wister et al., 2010).

A low level of health literacy influences the health information that can be provided for individuals. A significant barrier to self-management of chronic pain for the elderly people in the present study was the limited availability of health information in general and of pain-related issues in particular, which was of utmost importance for them in exploring treatments for chronic pain. DeLorme, Huh and Reid (2007b) suggested that elderly people received limited time and attention from physicians even though this source of health information is the one they trust most. Similarly, those in the present study reported that due to short consultation times, they received limited health information from these personnel.

The inadequacy of information given to elderly people about pain treatment was evident in the present study, in particular private physicians' withholding information about the name of medications. Several practitioners and researchers have suggested that the generic or trade names of prescribed medications should be included in writing in the information provided to patients (Fröhlich, Dal Pizzol Tda, & Mengue, 2010; Rajda & George, 2009). For medications that elderly people received from public health settings, medication name and instructions for use, were written on a label on each package. However, the labels on medications received from private clinics only contained instructions for use. During an observation of a private clinic visit, the researcher saw participant receive unnamed medications. This concurs with Dockpong's (2010) findings on drug information for patients in private clinics and drugstores in a district of north-east Thailand.

There are several Thai regulations concerning the rights of patients to obtain adequate information about their health problems and treatments. For instance, *The Declaration of Patients' Rights* was developed with the co-operation of the Medical Council, the Nursing Council, the Pharmacy Council, the Dental Council, and the Council for Registration of Medical Practice, Ministry of Public Health. Item 3 of the Declaration states that patients who seek medical services have the right to obtain adequate information to enhance their understanding of their condition and treatment (Limjaroen, 2004; Office of the Permanent Secretary, 2007). Another relevant regulation is the Pharmacy Council's *Regulation on Implementation of Professional Pharmacists* (1997), which, in items 4 and 5, states that pharmacists must provide instructions about medications given to clients. These instructions include name of medication, indication, doses and how to take them, side effects and adverse drug reactions, precautions and suggestions for use, and the responses that should be taken when encountering problems from drug use (The Pharmacy Council, 1997). However, this regulation does not apply to clients receiving treatment at private clinics, which in most instances, in Thailand, do not have a pharmacist attached to them (Sukkha, 2010).

Patients in Thailand are not well informed about their rights. For instance, 41.3% of patient participants in Limjaroen's (2004) study reported that they did not know about patients' rights. Thiel de Bocanegra and Gany (2004) suggested that empowerment of patients to participate actively in their medical care is the key to reducing disparities in healthcare, but there is still evidence of patients obtaining inadequate information about medication received from private clinics in Thailand (Dockpong, 2010; Thai Health Promotion Foundation, 2011).

One possible reason for physicians not telling patients the names of prescribed medications was to have them revisit the clinic. Two factors may explain this situation. First, the rationale for motivating patients' revisits was that many prescription-only medications, such as steroids, could be obtained without prescription in Thailand (Chalker, Ratanawijitrasin, Chuc, Petzold, & Tomson, 2005; Sringernyuang, 2000), and elderly people could obtain these medications easily once they knew the name of the product. This easy access, combined with little knowledge about the harmful effects of medications, may contribute to a high risk of dangerous side effects when they used the medication without appropriate supervision/monitoring from health personnel.

Second, physicians may simply want patients to revisit them so that they could charge another fee. The Thai word 'Mau Liang Kai,' referring to physicians who want their patients to remain unwell and revisit them on a regular basis (Prachweth, 1988), has been highlighted frequently (Division of Complementary and Alternative Medicine, 2006; Prachweth, 1988; Salib, 2009; Thai Rehabilitation Medicine Associaltion, 2007). While health personnel claim that this practice is less likely to be adopted by physicians, it still concerns many people (Division of Complementary and Alternative Medicine, 2006; Prachweth, 1988; Salib, 2009; Thai Rehabilitation Medicine Associaltion, 2007).

In the present study, the researcher observed that private clinic staff wrote the name of the medication on the label when requested by the elderly person's caregiver. Overall, while Thai legislation and several regulations stipulate that the name of medications should be provided to patients, these are not enforced sufficiently. Furthermore, health personnel who do not provide necessary information about medication to patients can be regarded as reinforcing their patient's low level of health literacy.

The sources of health information for elderly participants in the present study were mainly lay people, mass media, and health personnel. These are similar to a study in a municipal district in the northern region of Thailand, which found that for 60% of elderly people the main information source was lay people through televison, village broadcasting systems,[158] conversations, and radio, while for 12.3% of respondents the main source was health personnel, and 5.9% of respondents relied on printed media (Ageing Thai Organization, 2008). Several international studies have reported that health personnel are the preferred sources of health information (Cunha-Miranda et al., 2010; Cutilli, 2010; Health Information National Trends Survey, 2005; Hesse et al., 2005; Lambert & Loiselle, 2007; Maly, Leake, & Silliman, 2003) and have the greatest level of credibility (Cutilli, 2010; DeLorme et al., 2007b; Donohue, Huskamp, Wilson, & Weissman, 2009; Hesse et al., 2005). In the present study, most elderly people expressed their trust in information derived from health personnel; however, there were some instances of mistrust directed towards pain-related information from physicians due to the inadequacy of information provided.

In contrast to DeLorme et al.'s (2007b) study, the main source of health information for elderly people in the present study was lay people, especially family members and 'relatives.' This difference can be explained by the low level of education and health literacy because these factors influence an individual's ability to understand and use information (Longo et al., 2010). Elderly participants only completed the lower levels of primary school education and did not feel comfortable with reading information. Only one elderly person reported obtaining information from printed materials. During the study the researcher observed printed information about pain issues in public and private hospitals and in drug stores. However, these materials were placed in less accessible locations and not distributed to elderly people in person; thus, only those who actively sought health information could receive it.

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[158] Village broadcasting systems are the main channel for formal village leaders to announce information to villagers (Hatthakham, 2004). See Section 4.2.2 'Entering the field,' Chapter Four 'Methods of data collection,' for more details.

Promotion and advertisement of manufactured Traditional Medicine is accessible easily and frequently via radio programmes, direct sellers, and market sellers. Literature indicates that medication advertisements have a considerable influence on consumers' choices (Bower, Frail, Twohig, & Putnam, 2006; DeLorme, Huh, & Reid, 2007a). A Thai study in the north-east region villages by Ketkowit, Janposri, Thavondunstid and Thanyakoup (2000) also reported that rural villagers' health seeking behaviours were influenced by advertisements. Similarly, some participants in the present study expressed interest in using popular Traditional Medicines advertised on radio programmes for their pain self-management and others reported purchasing these medicines at a high cost but received unsatisfactory outcomes.

Limited accurate information in drug advertisements has been reported in many countries (Othman, Vitry, & Roughead, 2009; Sansgiry, Sharp, & Sansgiry, 1999; Santiago, Bucher, & Nordmann, 2008; Spielmans, Thielges, Dent, & Greenberg, 2008). There are several Thai regulations governing the accuracy of information contained in advertisements, including the *Consumer Protection Act* 1979 and 1999 Item 22 (National Telecommunications Commission Thailand, 2004; Tipayamontri, 2004), the *Regulation for Food Advertisement* 2008 (Food and Drug Administation Thailand, 2009), and *The Drug Acts* (Food and Drug Administation Thailand, 2004; Ministry of Public Health Thailand, 1987). However, a Thai survey of drug advertisements on radio reported that few were accurate as claimed (Kittisopee et al., 2005). In the present study, elderly people who reported using advertised products for chronic pain suggested that effective outcomes should be ensured before advertisements were distributed, as those for Traditional Medicine appeared to exaggerate claim to help people suffering various types of chronic pain and/or illness.

Sungsri (2002) reported that the information source preferred by elderly Thais was television, followed by radio, newspapers, persons, and books respectively. In the present study, participants reported that they accessed broadcast media, especially radio programmes, more frequently than other forms of media. There are few health programmes on mass media to encourage effective self-management (Media Monitor Thailand, 2008), and these programmes were not available for the elderly people in the present study. Elderly people preferred interviews with experts together with question and answer programmes (Sungsri, 2002).

12.6.3 Accessibility and Affordability

Accessibility and affordability of pain treatments affected self-management of chronic pain in elderly people. They had difficulties travelling to health care settings and the length of consultations with health personnel was minimal, approximately five minutes, which is consistent with Pongsupap et al.'s (2006a) report on medical practice in Thailand that indicated brief consultations with physicians (on average 3.8 minutes in public hospitals, 5.7 minutes in private hospitals, 5.9 minutes in private clinics, and 6.2 minutes in family practices). These consultation times were shorter than those with general practitioners in Slovenia (average 6.9, range 1–16 minutes) (Petek, Svab, & Zivcec, 2008), six European countries (average 10.7, range 7.6–15.6 minutes) (Deveugele, Derese, van den Brink-Muinen, Bensing, & De Maeseneer, 2002), other Western countries (average of 9–20 minutes) (Hutton & Gunn, 2007), and Australia (average 14.6 minutes) (Hutton & Gunn, 2007). British patients, who had longer consultations with physicians than the elderly participants in the present study, still reported the length of consultations as inadequate (Ogden et al., 2004). Literature revealed that the length of consultation affected the outcomes of patients' chronic conditions, patient and physician satisfaction, risk of malpractice claims, and health personnel's prescribing practices and quality of work (Dugdale, Epstein, & Pantilat, 1999; Freeman et al., 2002; Hutton & Gunn, 2007). Consultation with more than three or four patients per hour can lead to inadequate coverage of content (Dugdale et al., 1999; Hutton & Gunn, 2007) and longer consultations provide more opportunities to discuss important health care issues (Hutton & Gunn, 2007; Wilson & Childs, 2002).

Affordability influences chronic pain self-management. Incomes of elderly people and their families in the present study were minimal, and prevented them from accessing many preferable pain treatments. Most preferred to visit private health clinics because of shorter waiting periods, longer consultation times, higher perceived quality of treatment, and better responses to their requests than at public health clinics. However, the higher cost of treatment in private settings led those who could not afford this to seek treatment from public health services. Furthermore, Western-orientated Medicine is expensive as it includes medications, services, examinations, travelling, and personal expenses more so than Traditional Medicine. Elderly people's health schemes covered the cost of medication, service, and examination expenses at assigned public health clinics; however, they were required to pay such costs if they obtained these treatments from private clinics. Those who could not meet the expense of Western-orientated Medicine chose Traditional Medicine pain treatments that cost less.[159]

12.6.4 Support

Literature reveals that available support influences self-management of chronic illnesses (Gallant, 2003; Rosland, Heisler, Choi, Silveira, & Piette, 2010; Song et al., 2010) and chronic pain (Bair et al., 2009). The primary source of support for elderly Thais is their family members and 'relatives,' which is consistent with the report of the Ageing Thai Organization (2006), that indicated Thai elderly people were provided with care by children, spouses, children-in-law, and relatives, while only 0.3% were assisted by hired caregivers. This support was motivated highly by obligation and respect, where the Thai culture encourages children to provide good care to older parents and senior relatives (UNESCO Bangkok Office, Suwanrada, 2009; 2007). While many researchers have suggested that support from family members and social networks promotes self-management (Kapur et al., 2008; Song et al., 2010; Wen, Shepherd, & Parchman, 2004), several authors also indicated that this support can facilitate or hinder self-management (Gallant, 2003, 2007; Jones et al., 2008; Rosland et al., 2010). In the present study, although most reported a great deal of helpfulness from family and 'relatives,' they also indicated that support sometimes had negative effects on their management. In particular, a high degree of concern of family members prevented them from expressing their pain experiences. This is consistent with Clark's (1988) findings that one important aspect of chronic illness self-management was helping family members to be calm and helpful rather than too worried. In addition, much of the pain-related information and treatment provided by lay networks made it more complicated for those in the current study to make decisions about treatment, and because of the cultural context, it required a considerable level of interpersonal skills and self-efficacy not to follow suggestions and to refuse the offered pain treatment.

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[159] More discussion on affordability was provided previously in the category '*Seeking the most suitable treatment.*'

Conversely, participants indicated that support from family and 'relatives' is the primary facilitator for chronic pain self-management. Most obtained great support from family members and 'relatives,' especially children, that minimised difficulties in managing their pain. Some expressed that receiving only minimal support made the way they self-managed their symptoms more complicated and difficult. These participants also revealed that their children faced considerable financial difficulties, and this situation may explain, in part, why the latter provided limited support.

A survey of health status of the elderly in the four regions of Thailand by Ageing Thai Organization (2006) found that more than two-in-five elderly Thais reported receiving insufficient incomes, and another survey in municipal areas of a district in the northern region by Ageing Thai Organization (2008) indicated that approximately three-quarters expressed a need for financial support. Almost all elderly people in the current study stated that they had inadequate income. The fact that poverty is more evident in the north-east region than other regions and is more obvious in rural than urban areas can explain this difference.

There are two main areas of government financial support for elderly people, the health schemes (most were covered by the Universal Coverage Health Scheme), and the monthly allowance called the Bia Young Cheap.[160] All the elderly people in the present study had health schemes with limited availability of services, while half were receiving the Bia Young Cheap at the time of the study. Some claimed that there was inequitable distribution of the allowance, which is consistent with the findings of studies by Kamhom, Jongsathitman, Watchai, Ayuthaya and Cheuntrakul (1999), Wechayachai (2001) and Suwanrada and Khumwachiraphithak (2009). After the completion of data collection for the present study, the Thai government fully funded this allowance to all elderly Thais who had not received other kinds of government financial support since 2009 (Ministry of Interior Thailand, 2009; National Commission on the Elderly, 2009). A report by the Thai Ministry of Interior (Ministry of Interior Thailand, 2009; Public Relations Office Region 4 Phitsanulok, 2011) indicated that all registered elderly Thais, with no other government financial support,

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[160] See Section 4.6 'Overview of the participants,' Chapter Four 'Methods to data collection,' for more information.

have received the Bia Young Cheap since June 2009. In the present study, this support was used primarily to help with financial problems related to their chronic pain self-management. The elderly people stated that they were unaware of further assistance the government could provide, highlighting their limited access to information, hesitation to request more support, and feelings that further support was not feasible, rather than them not requiring additional support. The Ageing Thai Organization (2008) reported that, apart from health schemes and the monthly allowance, elderly Thais living in municipal areas also wanted the government to provide them with wide-ranging support to: (a) improve their functional ability, in particular eye glasses, hearing aids, walking canes, dentures, wheelchairs, and bath chairs; (b) provide for basic human needs, such as housing, clothes, food and everyday goods; and (c) improve health and well-being, for instance health care, social activities, and surgery. The participants in the current study had similar needs.

12.7 SUMMARY

The main elements of the theory were discussed in this chapter. The process *striving to maintain well-being: adapting to chronic pain* represents how elderly people self-manage their chronic pain. The theory is comprised of three categories: *making sense of pain, seeking the most suitable treatment,* and *integrating treatment into everyday life*. Some attempts to make sense did not achieve full understanding, contributing to uncertainty about their chronic pain. They used three criteria to identify the most suitable pain treatment: accessibility, affordability, and acceptability. Several factors facilitated their integration of pain treatment into daily living, in particular the provision of sufficient support. The nature of self-management was outlined, including health beliefs, health literacy, accessibility and affordability, as well as support.

CHAPTER THIRTEEN

CONCLUSION

13.1 INTRODUCTION

In this final chapter, the limitations and strengths of the study are examined. The implications of the findings are then discussed in relation to clinical practice, education for health personnel, health policy and legislation, Buddhist related activities, and research. Finally, a concluding statement about the study is presented.

13.2 LIMITATIONS OF THE STUDY

There were two limitations to the study: the participants and data collection method. The participant aspect was related to gender. This substantive grounded theory was based on the experiences of 32 elderly people living in rural villages in three provinces in north-east Thailand. Many more elderly female people expressed interest in taking part in the study, which may be due to several reasons. There were more female than male elderly people in the study setting and chronic pain was more prevalent in females than males. Elderly women felt more comfortable talking about their condition than males. The considerable difference in the number of male (n=6) and female (n=26) participants may affect the applicability of the theory to chronic pain self-management in elderly males.

Limitations related to the data collection method. The data were obtained primarily from interviews and thus their validity relies on participants' memories and verbal descriptions. These participants have performed chronic pain self-management from six months to 30 years with an average of seven years, and the activities reported may not be the same as those actually undertaken. Moreover, the actions stated verbally through the interviews may differ in some details because some situations or behaviours may be too sensitive for the participants to feel comfortable about disclosing them to the researcher. To address the latter problem, triangulation of the data collection was used. Self-management activities obtained from self-report during the study period were confirmed by other data sources such as observations and literature. However, the data about situations prior to the start of the study cannot be verified by observations and there are limited sources to validate them. Prolonged engagement of the researcher in the present study field might have helped redress some but not all of these issues.

13.3 STRENGTHS OF THE STUDY

The strength of the study is the researcher's deep understanding of the study context. The study was conducted in rural communities in north-east Thailand where the student researcher had grown up. She undertook several periods of field work as part of her undergraduate study course, performed additional voluntary student activities in north-east Thai villages, worked for ten years in a university hospital caring for north-east Thai villagers, conducted other programmes relevant to north-east Thailand while working as a lecturer at the same university, and used rural communities of north-east Thailand as the study setting for her Master's degree research. In addition, attendance at a short training course for community health nurse practitioners provided her with a perspective on primary health care in these communities. The length and variety of these experiences contributed to her profound understanding of the cultural context of the elderly participants. This cultural understanding, combined with her competence in the local dialect, enhanced the elderly people's feeling of comfort about providing information on their chronic pain self-management.

13.4 IMPLICATIONS OF THE STUDY

13.4.1 Implications for clinical practice

Nurses and other health personnel can enhance effective chronic pain self-management in elderly people living in rural communities in north-east Thailand through three stages of their self-management process. In the first stage, health personnel can help them to make sense of their pain, by providing sufficient information about the cause of pain, management strategies, effects and side effects of management, and ways to minimise side effects.

In the second stage, health personnel can facilitate elderly people's chronic pain self-management by improving accessibility, affordability and acceptability of treatment. Better access to health care services can be provided by reducing waiting time. The long waiting time in public health services is the principal reason for elderly people seeking pain treatment from private providers. In the present study, waiting times in public hospital were longer than in private hospitals and clinics. Implementing time-based appointments may help solve this problem (Centre for Continuing Medical Education Ramathibodi Hospital, 2007; Galyarajanagarindra Institute, 2007; Songklanagarind Hospital, 2011). Through this system, patients could book an appointment in advance, and staff would aim to provide consultations within 20 minutes of the stated appointment time (Saraban, 2007; Songklanagarind Hospital, 2011; Thanapan, 2009). A similar appointment system may help reduce waiting times for elderly people.

In terms of affordability, decreasing the cost of treatment can facilitate chronic pain self-management of the elderly people. Health personnel can enhance acceptability of treatment by promoting positive attitudes and relationships between them and elderly people. A positive view of health personnel can be engendered by supporting and encouraging elderly people and their caregivers to discuss problems and reach mutual agreement on feasible management with their personnel.

In the third stage, health personnel can assist elderly people to integrate pain treatment into their life, by providing treatment that can be incorporated easily into their usual activities. Giving practical suggestions on how to prevent and/or minimise the side effects of pain treatment can also promote self-management. In addition, facilitating the integration of consultation with health personnel for pain problems and for other co-existing illnesses will help reduce difficulties in self-managing their chronic pain.

Health centre staff can help elderly participants integrate their pain treatment into lives by providing assistance regarding IADLs (Achananupap, 2009; Torsati, 1999) and allocating village health volunteers to provide this support may be more feasible, provided they do not have too high a workload. In addition, a pilot project on volunteer-based home care for older people was implemented in 2003–2004 in selected areas in eight provinces, including Khon Kaen (National Commission on the Elderly, 2007; Office of Welfare Promotion Protection and Empowerment of Vulnerable Groups, 2007; Thai Government, 2007). This project provided good outcomes for elderly people and volunteers (Lasuka, 2007; Thai Government, 2007), and there are plans to extend it to all districts (National Commission on the Elderly, 2005; Office of Welfare Promotion Protection and Empowerment of Vulnerable Groups, 2007; Thai Government, 2007). Training volunteers for this role in the three study provinces (Khon Kaen, Mahasarakham, and Roi-Et) will commence in 2011

(Office of Welfare Promotion Protection and Empowerment of Vulnerable Groups, 2011; Provincial Public Relations Office Mahasarakham, 2011). These volunteers can be a source of support for elderly people like those in the present study in their role adjustment for self-managing chronic pain.

13.4.2 Implications for education of health personnel

Self-management is crucial for quality care of chronic illness; therefore, knowledge about the process of self-management and strategies to enhance this should be provided to health personnel. One way of doing this is to integrate this knowledge into educational courses related to community care, which focus on health services for people in the community; and continuity of care, that teaches students to provide continuous care between hospitals and communities. Completion of a course about Thai national and local culture should be a requirement for health personnel in order to understand their clients' context of illness. Effective communication is also important in making elderly people understand their health problems and treatment; therefore, lessons on effective communication should be integrated in all health personnel curricula.

13.4.3 Implications for health policy and legislation

For improving access

Elderly people in rural communities in north-east Thailand have limited access to health care services. There is no physician in the health centres, which are the closest health settings to their residences. The proportion of health personnel per head of population is minimal. Until a standardised distribution of health personnel based on population is achieved, the proportion of staff in north-east region should be addressed so as to be equivalent to that in other regions. Before the National Plan to have a physician in every health centre is achieved, the problem of limited accessibility for elderly people in rural communities can be decreased by having physicians come to health centres to deliver medical care on a regular basis, such as monthly. Furthurmore, Hanucharurnkul (2010) suggested several reasons for allocating nurses to deliver primary health care in Thailand. Nurses or nurse practitioners[161] should be

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[161] In 2010, there were 10,797 community health nurse practitioners in Thailand (Hanucharurnkul, 2010), most had a Bachelor degree qualifications, plus completion of a four-month training course for general nurse practitioners (Hanucharurnkul et al., 2007). In 2009, the government planned to have

allocated to all health centres to cover four main health care services (health promotion, illness prevention, basic medical treatment, and rehabilitation) that will promote elderly people's self-management (Hanucharurnkul, 2010). In addition, Chingrum and Rattanapongpinyo (2007) reported that some retired teachers wanted to do voluntary social activities or part-time work. Allocation of certain work tasks to retired health personnel who were willing to do these activities may help reduce workloads of current staff, who in turn, could then provide longer consultation times for patients.

Limited and costly transportation is a considerable problem that compromises elderly people's self-management of chronic pain. More convenient and subsidised transportation should be provided by the Thai government, local governments, and health agencies to transport elderly people to health care facilities. This support would also help prevent exacerbation of their existing financial problems as a result of high transportation expenses.

For information about medication

Elderly people's self-management of chronic pain is hindered when a patient is unable to identify the type of pain medication received from a private clinic. In order to facilitate self-management and minimise harm, relevant legislation should be enforced, so that health personnel in private health facilities must provide patients with precise details of the medications prescribed for them. This action will require agreement of all health-related professions. Patients who visit private clinics should be told the name of the medication prescribed for them and be able to purchase it from a pharmacy near their home. They should also be given recommendations about its proper use and should be required to visit a physician if they wish to continue taking the medication. The follow-up visit would allow the physician to assess the need to continue prescribing the medication and check the elderly person's condition to prevent or detect early signs of potential harm from its use.

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nurse practitioners providing basic medical care, health promotion, and disease prevention at 1,000 out of the 10,000 health centres that will be upgraded to health promotion sub-district hospitals (Thai Health Promotion Foundation, 2009).

For access to over-the-counter medication

Various types of medications are accessible to general people without proper supervision by health personnel. It is evident that elderly people experience adverse effects of over-the-counter medications accessible to them in the form of traditional medicine and/or Western-oriented medication, including *Ya Chud,* NSAIDS, and other painkillers. These adverse reactions range from minimal to fatal side effects. Better control of access to over-the-counter medication, along with more effective strategies for giving health information to public need to be carried out by government and health personnel, in order to prevent harmful effect from misuse of these medications.

For media promotions and programmes

It is evident that radio advertisements for pain treatment, especially for traditional pain relief products, are not always accurate. These advertisements influence elderly people's choices of chronic pain self-management by increasing their interest in trying the advertised treatments despite their often considerable cost and questionable effectiveness. There needs to be greater government surveillance and control of the promotion of health products by the media. In addition, information should be provided to the public about how to report inaccurate claims in advertisements so that the authorities can assess and take action, as appropriate.

Broadcast media, especially radio programmes, appear to be the most effective media for distributing health information. Currently, there are insufficient health programmes provided by this type of media, so more health programmes should be broadcast on radio to deliver accurate information to elderly people in rural communities, whose pain management strategies are influenced by radio programmes. The Thai Government should consider introducing legislation requiring public broadcast media (TV and radio) to include a stipulated minimum level of health programmes, to be provided objectively by health personnel. Such legislation would help improve access to health information and enhance health literacy.

For caregiver support

The family and 'relatives' are the main support for all aspects of elderly people's self-management. This vital support should be maintained by giving encouragement to those who assist their older relatives. Currently, a tax reduction is given to working people who look after their elderly parents. In addition, tangible and intangible support should be provided to caregivers. Tangible support may include monthly payments either to nominated caregivers or to dependent elderly people to pay for their caregivers. Intangible support could be the facilitation of paid leave for caregivers who work in the government sector. Respite care should also be initiated. For instance, a project similar to the volunteer-based home care for older people (National Commission on the Elderly, 2005; Office of Welfare Promotion Protection and Empowerment of Vulnerable Groups, 2007; Thai Government, 2007) should be introduced to help provide respite for caregivers.

13.4.4 Implications for Buddhist-related activities

Elderly people in the study had strong Buddhist beliefs. Being unable to join in religious activities affected their spiritual well-being adversely. One factor that prevented them from engaging in these activities is that Buddhist Thais are expected to sit with legs folded to one side in front of monks, images of Buddha, or other people more senior than them. Thus those who could not sit with legs folded to one side were unable to join in most religious activities. On some occasions, the setting was modified by allowing people to sit on chairs, provided that the monks and/or images of Buddha remained at a higher level. Reserving these places for people who cannot sit with their legs folded will provide more accessibility to religious activities for elderly people, which in turn, can promote their self-management and well-being.

Elderly people often discuss their health problems when they meet with ‘relatives’ and neighbours, and the place that they gather regularly is the temple. It may be helpful to run self-help groups for elderly people with chronic pain/illnesses at temples after the religious activities. Establishing self-help groups will provide another way for them to share experiences of their pain problems and self-management with other elderly people under the supervision of health personnel. Self-management strategies suggested by peers are more likely to be practical and acceptable than advice from health staff (Dibb & Yardley, 2006; Muangkaew, 2001). This is because elderly people feel that they are in the same situation and are more likely to be understanding than health personnel. While attending self-help groups at temples, health personnel can answer elderly people’s questions and provide advice about not using peer suggested self-management strategies that are potentially harmful.

Temples have been traditionally centres for village activities, and most north-east Thai villagers go to temples to give food offerings to Buddhist monks every morning. The Health Promotion Temple Project was initiated as part of the second National Plan for Older Persons (Jitapunkul & Wivatvanit, 2009) to initiate and provide several health promotion activities for elderly Thais at Buddhist temples. The project has been implemented successfully in some temples (Treerutkuarkul, 2008); however, it has not been implemented in the study settings. Distribution of health information at the temple before or after religious activities may be an effective way to promote health knowledge for this group of people. In addition, most monks are also at an advanced age and promoting health literacy to monks may also be a mediator for distributing and reinforcing health information to elderly people in villages.

13.4.5 Implications for research

The findings of this study were obtained from elderly people with chronic non-malignant pain mainly related to musculoskeletal pain. Greater comprehension of self-management in elderly people with chronic pain requires further studies of those with varied causes of chronic pain and with chronic malignant pain. The findings provide an understanding of pain self-management from elderly people’s point of view. A study on how health personnel facilitate self-management for elderly people will offer another point of view in enhancing effective self-management in this group of people. There are several research questions generated from this study. For example: is the process of chronic pain self-management explained by this study similar to that in other groups, such as elderly people living in rural and urban communities in other parts of the country; and elderly people with limited access to health care services in other countries? Furthermore, is elderly people’s self-management of chronic pain different from that of other chronic conditions that are highly prevalent in older age such as diabetes mellitus, hypertension, and heart disease?

Health information is crucial for effective chronic pain self-management, and the elderly people in the study experienced limitations in receiving health information from health personnel, printed and broadcast media. A study was conducted with diverse groups in four regions of Thailand on elderly people's preferred methods of receiving information (Sungsri, 2002). However, more specific information on health issues with a clear focus on this vulnerable group is needed. A study on actual and preferred methods of health information for this group will provide guidance on how to distribute health information to them effectively in order to promote their self-management.

Some interesting issues related to the quality of health care services require clarification by further studies; for instance, interaction between health personnel and elderly participants, strategies to improve health care services through effective communication between personnel and elderly people to achieve mutual understanding within a limited time, and the feasibility and efficacy of a time-based appointment system in the study health care settings.

13.5 Concluding statement

This study examines how elderly people living in north-east Thailand self-manage their chronic pain. They attribute their difficulties in self-managing their chronic pain to several factors, including being in poverty, being geographically isolated from health services, having a low level of health literacy, and being at an advanced age.

The findings of this study highlight the importance of health personnel's understanding of individuals' health problems, their self-management, and related influences. This understanding will help promote self-management in individuals with chronic illness, which in turn, will help them maintain optimal well-being. The study provides a theory *striving to maintain well-being: adapting to chronic pain* to maximise understanding of the ways elderly people living in rural communities north-east Thailand self-manage their chronic pain and provides strategies to promote their effective self-management. The theory can also contribute to greater understanding of self-management of chronic pain by people in similar settings as well as those with limited resources in other settings. The theory contributes to the limited body of nursing knowledge about how elderly people self-manage their chronic pain within the context of having poor access to resources, by outlining the dynamic process of self-management along with its related influences.

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APPENDICES

Appendix 1

The Participant Information

Appendix 1

The Participant Information

INFORMATION TO ELDERLY WITH CHRONIC PAIN PARTICIPANTS

Project Title: Self-management of chronic pain in elderly people living in rural communities in North-eastern Thailand

Principal Investigator:	**Professor Terence McCann**
Co-investigator:	**Dr. Joan Deegan**
Co-investigator:	**Ladawan Panpanit**
Associate Investigator:	**Associate Professor Wanapa Sritanyarat**

Dear elderly,

My name is Ladawan Panpanit. I am a research student doing a Ph.D study in nursing at the School of Nursing and Midwifery, Victoria University, Melbourne, Australia. I am also a lecturer in gerontological nursing at the Faculty of Nursing, Khon Kaen University. I would like to invite you to take part in this study about the self-management of chronic pain in elderly people in rural communities. The study involves you completing questionnaires, being interviewed, and being observed about how you manage your chronic pain.

This participant information letter contains detailed information about the research project. Its purpose is to explain to you as openly and clearly as possible all the procedures involved in the project before you decide whether to take part. Please read this participant information carefully. Feel free to ask questions about any information in the document. You may also wish to discuss the project with a relative or friend or your local health worker. Feel free to do this.

Once you understand what the project is about, and if you agree to take part, you will be asked to sign the consent form. By signing the consent form, you indicate that you understand the information and that you give your consent to participate in the research project.

You will be given a copy of the participant information and consent form to keep as a record.

1. Purpose and background

The general purpose of the study is to find out how elderly people, who live in rural communities in northeast Thailand, manage their chronic pain. In particular, we wish to:

1. understand how chronic pain affects the general well-being of elderly people;
2. examine the ways that elderly people manage their chronic pain; and

3. identify the factors that affect the way elderly people manage their chronic pain.

Approximately 30 elderly who are experiencing chronic pain will take part in the study. You are invited to participate in this study if you:

- are male or female Thai elderly, aged 60 years or over,
- are experiencing chronic pain within the past 6 months,
- live in or nearby the selected villages,
- can speak Thai or northeastern Thai dialect.

2. Procedures

You will be asked to take part in the following:

- Questionnaire: You will be asked to complete a demographic questionnaire, a quality of life questionnaire and a chronic pain questionnaire. It will take approximately 30 minutes to complete the questionnaires.
- Interviews: You will be asked to take part in an interview, which will be take place at a mutually convenient time and private setting. You may be asked to take part in more than one interview. Audiotape recording and note taking will be taken, if you give permission to the researcher to do so. You can ask to take breaks during the interview, and ask the researcher to stop the interview at any time.
- Observations: The researcher will also ask your permission to visit your home to observe the ways you manage your pain. Notes will be taken, if you give permission to the researcher to do so. You can also ask the researcher to stop the observations at any time.

3. Possible benefits

While there are no direct benefits to you in taking part in the study, you may indirectly benefit by providing valuable information for health care workers to help you to self-manage your pain more effectively.

4. Possible risks

In the unlikely event that you experience some discomfort as a result of involvement in the study, you will be offered basic emotional support from the researcher who is also an experienced nurse. Also the researcher is a Thai national who is mindful of cultural sensitivity of northeastern Thailand. You will also be offered an opportunity to decide whether to continue. If you are still experiencing discomfort, and would like additional assistance, you will be referred to your primary caregiver(s) or clinical staff at the closest public health centre or district hospital.

5. Alternatives to participation

You can have as much time as you need to consider taking part in the study. Your participation is voluntary, and there will be no adverse effect on your relationship with health care staff or your primary caregiver(s) if you decline to participate or withdraw from the study. You also have the right to withdraw from the study at any stage without having to give a reason.

6. Privacy, confidentiality and disclosure of information

Any information obtained in connection with this study that can identify you will remain confidential. The information will not be disclosed to your primary caregiver(s) or any other people. During the project, data will be stored in a locked filing cabinet in Terence McCann’s office in the School of Nursing and Midwifery, Victoria University. Only Terence McCann, Joan Deegan and Ladawan Panpanit will have access to the data. Electronic data files will be stored on Terence McCann’s computer, protected by a password known only to these investigators, who will have joint responsibility for security of the data. At the completion of the study, the hard copy of the data, electronic copy of data, and the tape recording will be securely stored in the School of Nursing and Midwifery, Victoria University and will be destroyed after five years.

If you give us your permission by signing the Consent Form, we plan to publish the results of the study in professional journals and present the results in professional conferences. In any publication or presentation, information will be provided in such a way that you and your village cannot be identified. Both you and your village will be given pseudonyms (other names) and referred to only by these names in any reports or presentations that come out of the study.

7. Results of project

If you wish, you can ask for a written summary of the results of the study to be sent to you.

8. Further information or any problems

If you require further information, or have any problems concerning this project, you can contact the researcher:

- Terence McCann, International telephone: (61) 3 9919 2325, Mobile phone: (61) 4 0320 9453,

  E-Mail Address: Terence.McCann@vu.edu.au

- Dr. Joan Deegan, International telephone: (61) 3 9919 2446, Mobile phone: (61) 4 0146 3043

  E-Mail Address: Johanna.Deegan@vu.edu.au

- Ladawan Panpanit, Telephone: (66) (043) 203 065, Mobile phone: (66) (08) 7852 4022

  E-Mail Address: ladawan.panpanit@students.vu.edu.au, ladpan@kku.ac.th

- Wanapa Sritanyarat, Telephone: (66) (043) 202 407, Mobile phone: (66) (08) 1074 4717

  E-Mail Address: wanap_a@kku.ac.th

9. Other Issues

If you have any complaints about any aspect of the research, the procedures are being conducted, or any questions about your rights as a research participant, you may contact:

Name:	Wanapa Sritanyarat, Lecturer
Position:	Faculty of Nursing, Khon Kaen University, Khon Kaen, Thailand
Telephone:	(66) (043) 202 407
Mobile phone:	(66) (08) 1074 4717

E-Mail Address: wanap_a@kku.ac.th

Name: Mr Anthony Benka

Position: Secretary, Victoria University Human Research Ethics Committee

International telephone: (61) 3 9919 4148

E-Mail Address: researchethics@vu.edu.au

10. Participation is voluntary

Participation in the project is voluntary. If you do not wish to take part, you are not obliged to. If you decide to take part, you are free to withdraw from the project at any time, but please notify the researcher before you withdraw. Withdrawal will not be detrimental to you in any way. It will not affect your relationship with health care staff or your primary caregiver(s).

Before you make your decision, the researcher will give you the chance to ask questions about matters you do not understand and have your questions answered to you satisfaction. Sign the Consent Form only after you have had an opportunity to ask your questions and have received satisfactory answers.

11. Ethical Guidelines

The ethical aspects of this research project have been approved to protect the interest of individuals who agree to participant in human research studies by the Victoria University Human Research Ethics Committee, and the Research Committee of the Ministry of Public Health, Bangkok, Thailand.

12. Interviews

With your permission, the interview will be audio-taped. If you choose not to participate that is your right.

13. Observation

With your permission, the researcher will visit you and observe the way you manage your pain at your home. If you choose not to participate that is your right.

Appendix 2

The Consent Form

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Appendix 2

CONSENT FORM FOR PARTICIPANTS INVOLVED IN RESEARCH

CERTIFICATION BY ELDERLY WITH CHRONIC PAIN PARTICIPANTS

I, ____

certify that I am at least 18 years old* and that I am voluntarily giving my consent to participate in the study: **“Self-management of chronic pain in elderly people living in rural communities in North-eastern Thailand”** being conducted at Victoria University, Melbourne, Australia by: Professor Terence McCann, Dr.Joan Deegan and Ladawan Panpanit

I certify that the objectives of the study, together with any risks and safeguards associated with the procedures listed hereunder to be carried out in the research, have been fully explained to me by:

Ladawan Panpanit

and that I freely consent to participation involving the use on me of these procedures:

- Completing questionnaires
  Yes ☐ No ☐
- Be interviewed about management of my chronic pain
  Yes ☐ No ☐
- Be visited by the researcher to my convenient place and observed management of my chronic pain
  Yes ☐ No ☐
- have my interview audio taped
  Yes ☐ No ☐

I certify that I have had the opportunity to have any questions answered and that I understand that I can withdraw from this study at any time and that this withdrawal will not jeopardise me in any way.

I have been informed that the information I provide will be kept confidential.

Signed:___________________________________

Witness other than the researcher: ______________________________

Date: ________________________________

Any queries about your participation in this project may be directed to the researcher:

- Terence McCann, International telephone: (61) 3 9919 2325, Mobile phone: (61) 4 0320 9453,

E-Mail Address: Terence.McCann@vu.edu.au

- Joan Deegan, International telephone: (61) 3 9919 2325, Mobile phone: (61) 4 0146 3043,

E-Mail Address: Johanna.Deegan@vu.edu.au, and

- Ladawan Panpanit, Telephone: (66) (043) 203065, Mobile phone: (66) (08) 7852 4022

E-Mail Address: ladawan.panpanit@students.vu.edu.au, ladpan@kku.ac.th

If you have any queries or complaints about the way you have been treated, you may contact:

Name:	Wanapa Sritanyarat, Lecturer
Position:	Faculty of Nursing, Khon Kaen University, Khon Kaen, Thailand
Telephone:	(66) (043) 202 407
Mobile phone:	(66) (08) 1074 4717
E-Mail Address:	wanap_a@kku.ac.th

The Secretary, Victoria University Human Research Ethics Committee, Victoria University, PO Box 14428, Melbourne, VIC, 8001 phone (61) 3 9919 4781, e-mail: researchethics@vu.edu.au

Appendix 3

A Socio-Demographic Questionnaire

Appendix 3

Socio-Demographic questionnaire

1. ID number__________________

2. Age_____________________ years

3. Gender
   ☐ Male ☐ Female

4. Marital Status
   ☐ Single ☐ Married/ De facto

   ☐ Widowed/ Widower ☐ Separated/ Divorced

5. What is your highest level of education?
   ☐ No formal education ☐ Primary school

   ☐ Lower Secondary school ☐ Upper Secondary school

   ☐ Vocational education ☐ University

   ☐ Other____

6. Are you still working?
   ☐ No (go to question 8) ☐ Yes

7. If you are still working, are you working part-time or full-time?
   ☐ Part-time ☐ Full-time

8. What are your main sources of income? (Tick as many boxes as necessary)
   ☐ Agriculture

   ☐ Hired labourers

   ☐ From your children

   ☐ Own business apart from agriculture

   ☐ Retired (receiving payment from the government)

   ☐ Other____

9. Approximately how much is your family income each month?

10. What is total number of family members living in the household in which you live?

11. Who is your primary caregiver/s? (Tick as many boxes as necessary)

☐ Husband/ wife ☐ Son/ daughter

☐ Son/ daughter in-law ☐ Sister/ brother

☐ Grandchildren ☐ Neighbours

☐ Other (please identify) ________________________

12. Do you have any illness/es that you are aware of?

☐ No (go to question 14) ☐ Yes

13. Please list the illness/es and the duration of each illness

Please list the illness/es	How long have you had each illness (in years)?

14. Do you have health insurance?

☐ No (go to question 16) ☐ Yes

15. What is your health insurance scheme?

☐ Civil Servant Medical Benefit Scheme

☐ Social Security Scheme/ Workmen’s Compensation Scheme

☐ Universal Coverage Scheme or Health Insurance Card

☐ Private health insurance

☐ Other (please identify) ________________________________

16. Do you receive social welfare payment?
☐ No (go to question 18) ☐ Yes

17. How much social welfare payment do you receive each month?

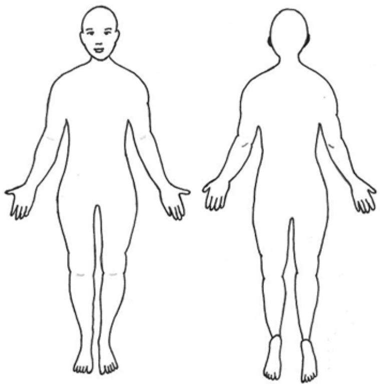
18. Apart from social welfare payment, do you receive any other social welfare services?
☐ No (go to question 20) ☐ Yes

19. What are other social welfare services do you receive? (Tick as many boxes as necessary)
☐ Free annual physical check-up ☐ Counselling
☐ Recreation activities ☐ Other (please identify) ______________

This section will ask you about your chronic pain experience, please choose the answer that indicates your own experience for each of the following question.

20. Is your pain generalized, localized, or both generalized and localized?
☐ Generalized pain (go to question 22)
☐ Localized pain
☐ Both generalized and localized pain

21. What is the most common part of your body in which you experience chronic pain? (Please mark 'X' on the picture indicating the part of your body where you most commonly experience chronic pain)



http://bestpractice.bmj.com/best-practice/monograph/694/diagnosis/step-by-step.html

22. How would you describe your pain?

☐ Stabbing ☐ Sharp ☐ Throbbing
☐ Tender ☐ Shooting ☐ Hot-Burning

☐ Gnawing ☐ Cramping ☐ Aching

☐ Splitting ☐ Numb ☐ Sickening
☐ Tiring-Exhausting ☐ Fearful ☐ Heavy

☐ Punishing-cruel ☐ Other (please identify) ____________________

23. Generally, how severe is your <u>chronic</u> pain? If ‘0’ represents ‘no pain’, and ‘10’ represents ‘the worst pain possible’, please circle the number that most represents the level of your <u>chronic</u> pain.

0	1	2	3	4	5	6	7	8	9	10
No pain										Worst pain

24. How often do your experience chronic pain?

☐ Very often ☐ Often ☐ Some of the time

☐ Rarely ☐ Never

25. Do you receive pain management from health care staff?

☐ No (go to question 29) ☐ Yes

26. Where do you receive pain management from health care staff?

☐ Public hospital ☐ Private hospital/clinic

☐ Health centre ☐ Other (please identify)____________________

27. What type of pain management do you receive from health care staff? (Tick as many boxes as necessary)

☐ Pain killer medicine ☐ Physiotherapy

☐ Hot compress ☐ Cold compress

☐ Advice on posture ☐ Advice for rest

☐ Advice for exercise ☐ Other (please identify) ____________________

28. Overall, in relation to chronic pain, how much pain relief do you obtain from these forms of pain management? If '0' represents 'no pain relief', and '10' represents 'complete pain relief', please circle the number that most represents level of your pain relief.

0	1	2	3	4	5	6	7	8	9	10
No Relief										Complete Relief

29. Do you receive pain management from people other than health care staff?
☐ No (go to question 33) ☐ Yes

30. From whom do you receive pain management? (Tick as many boxes as necessary)
☐ Friends ☐ Neighbours ☐ Family members

☐ Direct sellers ☐ Traditional lay practitioners

☐ Modern lay practitioners ☐ Other (please identify) ____________________

31. What type of pain management that you receive from these people? (Tick as many boxes as necessary)
☐ Massage ☐ Meditation

☐ Herbal pain killer medicine ☐ Modern pain killer medicine

☐ Manipulation like physiotherapy ☐ Other (please identify) ______________

32. Overall, in relation to chronic pain, how much pain relief do you obtain from these forms of pain management? If '0' represents 'no pain relief', and '10' represents 'complete pain relief', please circle the number that most represents level of your pain relief.

0	1	2	3	4	5	6	7	8	9	10
No Relief										Complete Relief

33. Do you do anything yourself to manage your pain?
☐ No (end of questionnaire) ☐ Yes

34. What do you do to manage your pain by yourself?(Tick as many boxes as necessary)
☐ Rest ☐ Exercise ☐ Meditation

☐ Hot compress ☐ Cold compress ☐ Listen to music

☐ Posture adjustment ☐ Pain killer medicine

☐ Other (please identify) ______________________

35. Overall, in relation to chronic pain, how much pain relief do you obtain from these forms of pain management? If ‘0’ represents ‘no pain relief’, and ‘10’ represents ‘complete pain relief’, please circle the number that most represents level of your pain relief.

0	1	2	3	4	5	6	7	8	9	10
No Relief										Complete Relief

Appendix 4

An Aide-Memoire

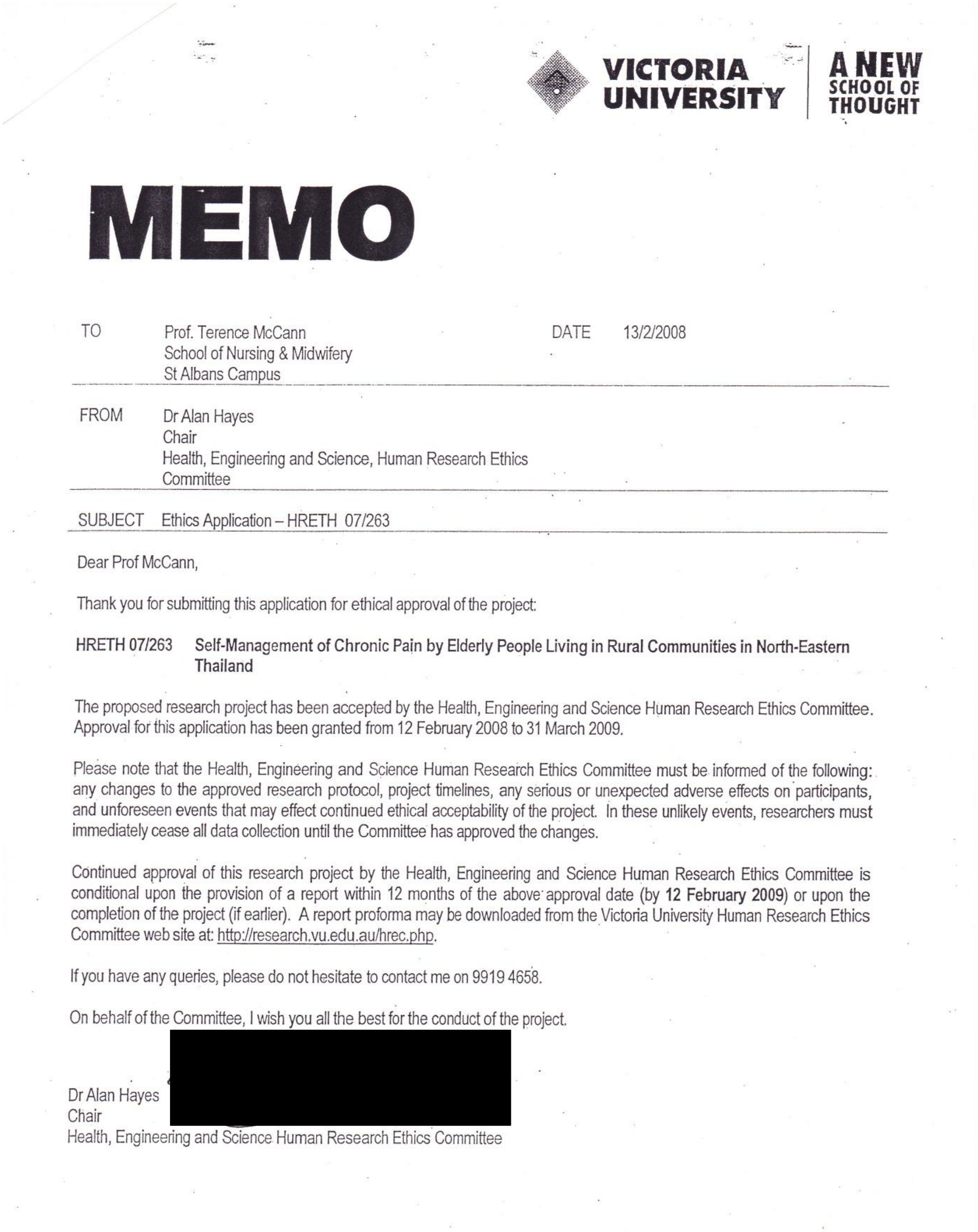
Appendix 4

Aide- memoire

- Can you tell me about your experiences of chronic pain?
- What effect, if any, does pain have on your health and general wellbeing?
    - What effect, if any, does pain have on your daily life?
    - What effect, if any, does pain have on your relationship with others?
    - What effect does pain have on your mood overall?
- Overall, can you tell me about the things, if any, that help you to manage your pain?
- Overall, can you tell me about the things, if any, that make it difficult to manage your pain?
- What do health care providers do to help relieve your pain?
    - What could health care providers do to help relieve your pain?
- What do others (e.g. other family members, friends, neighbours) do to help relieve your pain?
    - What could others (e.g. other family members, friends, neighbours) do to help relieve your pain?
- What do you do to help relieve your pain?
    - What could you do to help relieve your pain?
- Is there anything else that you can think of would help relieve your pain?

Appendix 5

Ethics approval from the Victoria University Human Research Ethics Committee



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MEMO

TO	Prof. Terence McCann School of Nursing & Midwifery St Albans Campus	DATE	13/2/2008
FROM	Dr Alan Hayes Chair Health, Engineering and Science, Human Research Ethics Committee		
SUBJECT	Ethics Application – HRETH 07/263		

Dear Prof McCann,

Thank you for submitting this application for ethical approval of the project:

HRETH 07/263 **Self-Management of Chronic Pain by Elderly People Living in Rural Communities in North-Eastern Thailand**

The proposed research project has been accepted by the Health, Engineering and Science Human Research Ethics Committee. Approval for this application has been granted from 12 February 2008 to 31 March 2009.

Please note that the Health, Engineering and Science Human Research Ethics Committee must be informed of the following: any changes to the approved research protocol, project timelines, any serious or unexpected adverse effects on participants, and unforeseen events that may effect continued ethical acceptability of the project. In these unlikely events, researchers must immediately cease all data collection until the Committee has approved the changes.

Continued approval of this research project by the Health, Engineering and Science Human Research Ethics Committee is conditional upon the provision of a report within 12 months of the above approval date (by **12 February 2009**) or upon the completion of the project (if earlier). A report proforma may be downloaded from the Victoria University Human Research Ethics Committee web site at: http://research.vu.edu.au/hrec.php.

If you have any queries, please do not hesitate to contact me on 9919 4658.

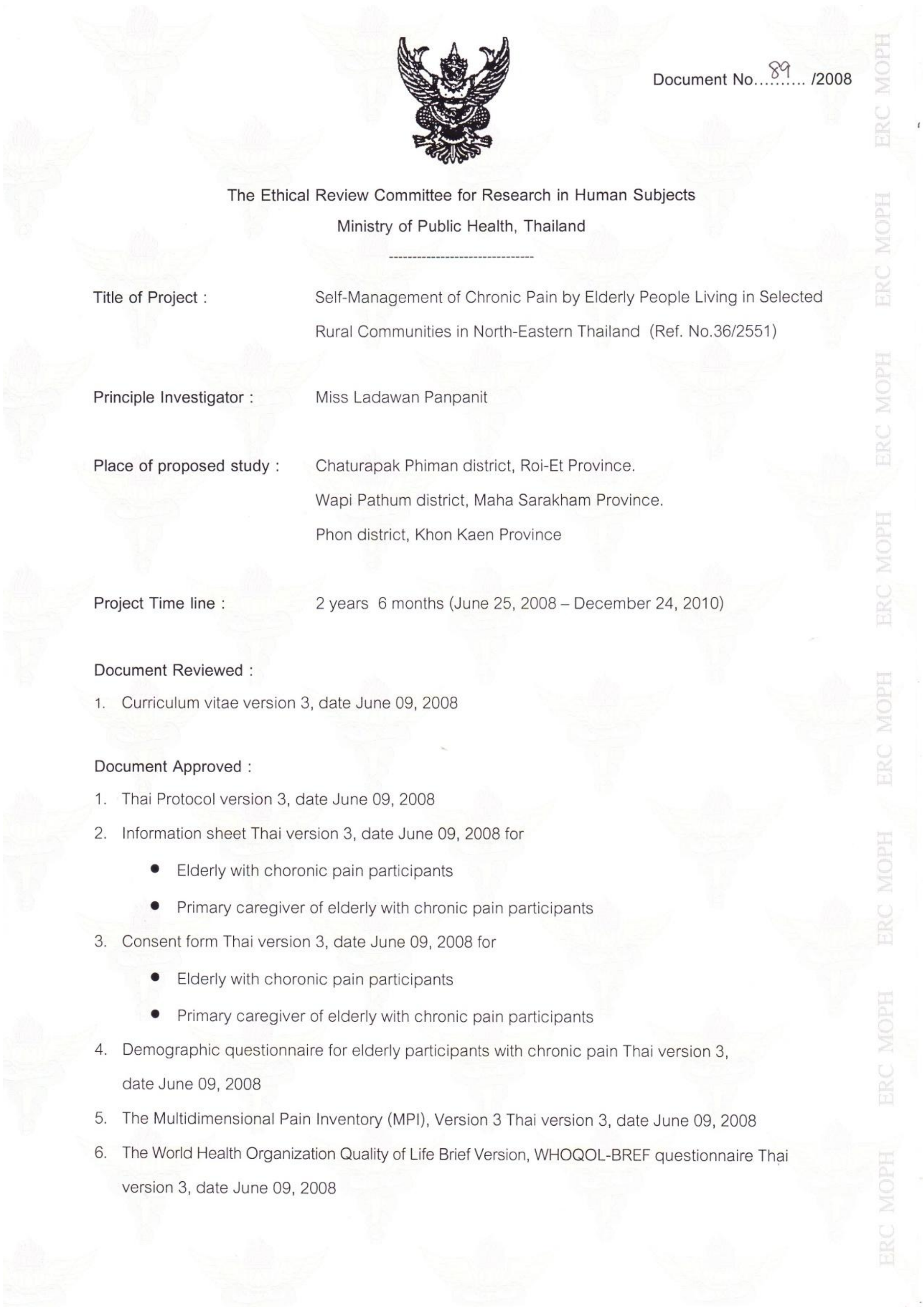
On behalf of the Committee, I wish you all the best for the conduct of the project.

[redacted]

Dr Alan Hayes
Chair
Health, Engineering and Science Human Research Ethics Committee

Appendix 6

Ethics approval from the Ethical Review Committee for Research on Human Subjects, Ministry of Public Health Thailand



Document No. 89 /2008

The Ethical Review Committee for Research in Human Subjects
Ministry of Public Health, Thailand

Title of Project : Self-Management of Chronic Pain by Elderly People Living in Selected Rural Communities in North-Eastern Thailand (Ref. No.36/2551)

Principle Investigator : Miss Ladawan Panpanit

Place of proposed study : Chaturapak Phiman district, Roi-Et Province.
Wapi Pathum district, Maha Sarakham Province.
Phon district, Khon Kaen Province

Project Time line : 2 years 6 months (June 25, 2008 – December 24, 2010)

Document Reviewed :

1. Curriculum vitae version 3, date June 09, 2008

Document Approved :

1. Thai Protocol version 3, date June 09, 2008
2. Information sheet Thai version 3, date June 09, 2008 for
    - Elderly with choronic pain participants
    - Primary caregiver of elderly with chronic pain participants
3. Consent form Thai version 3, date June 09, 2008 for
    - Elderly with choronic pain participants
    - Primary caregiver of elderly with chronic pain participants
4. Demographic questionnaire for elderly participants with chronic pain Thai version 3, date June 09, 2008
5. The Multidimensional Pain Inventory (MPI), Version 3 Thai version 3, date June 09, 2008
6. The World Health Organization Quality of Life Brief Version, WHOQOL-BREF questionnaire Thai version 3, date June 09, 2008

Document No....89.... /2008

7. Demographic questionnaire for primary caregiver Thai version 3, date June 09, 2008
8. The Zarit Burden Interview Thai version 3, date June 09, 2008
9. Interview guideline (Aide Memoire) Thai version 3, date June 09, 2008

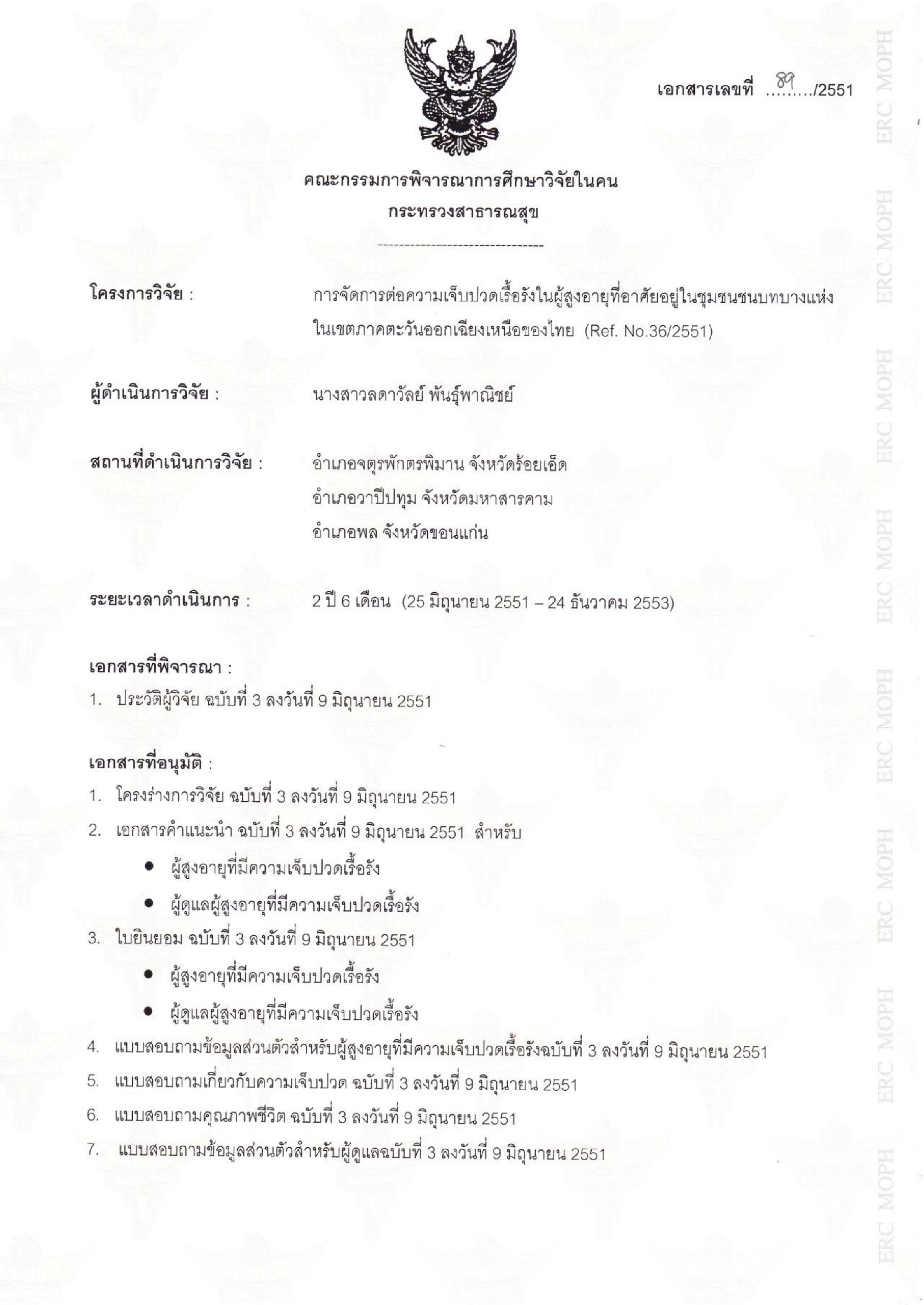
We also confirm that we are an ethics committee constituted in agreement and in accordance with the ICH-GCP.

The Ethical Review Committee for Research in Human Subjects Ministry of Public Health, Thailand had reviewed protocol. In ethical concern, the committee has reviewed and approved for implementation of the research study as above mention, therefore the Thai protocol will be mainly conduct. The protocol must be approved by continuation review for the duration of one year until expired.

.....[redacted]........... Chairman
(Mr. Rewat Wisutwet)

......[redacted] Secretary
(Mr. Pakorn Siriyong)

Date of Approval June 25, 2008 Date of Expired June 25, 2009



เอกสารเลขที่ 89/2551

คณะกรรมการพิจารณาการศึกษาวิจัยในคน
กระทรวงสาธารณสุข

โครงการวิจัย : การจัดการต่อความเจ็บปวดเรื้อรังในผู้สูงอายุที่อาศัยอยู่ในชุมชนชนบทบางแห่งในเขตภาคตะวันออกเฉียงเหนือของไทย (Ref. No.36/2551)

ผู้ดำเนินการวิจัย : นางสาวลดาวัลย์ พันธุ์พาณิชย์

สถานที่ดำเนินการวิจัย : อำเภอจตุรพักตรพิมาน จังหวัดร้อยเอ็ด
อำเภอวาปีปทุม จังหวัดมหาสารคาม
อำเภอพล จังหวัดขอนแก่น

ระยะเวลาดำเนินการ : 2 ปี 6 เดือน (25 มิถุนายน 2551 – 24 ธันวาคม 2553)

เอกสารที่พิจารณา :

1. ประวัติผู้วิจัย ฉบับที่ 3 ลงวันที่ 9 มิถุนายน 2551

เอกสารที่อนุมัติ :

1. โครงร่างการวิจัย ฉบับที่ 3 ลงวันที่ 9 มิถุนายน 2551
2. เอกสารคำแนะนำ ฉบับที่ 3 ลงวันที่ 9 มิถุนายน 2551 สำหรับ
    - ผู้สูงอายุที่มีความเจ็บปวดเรื้อรัง
    - ผู้ดูแลผู้สูงอายุที่มีความเจ็บปวดเรื้อรัง
3. ใบยินยอม ฉบับที่ 3 ลงวันที่ 9 มิถุนายน 2551
    - ผู้สูงอายุที่มีความเจ็บปวดเรื้อรัง
    - ผู้ดูแลผู้สูงอายุที่มีความเจ็บปวดเรื้อรัง
4. แบบสอบถามข้อมูลส่วนตัวสำหรับผู้สูงอายุที่มีความเจ็บปวดเรื้อรังฉบับที่ 3 ลงวันที่ 9 มิถุนายน 2551
5. แบบสอบถามเกี่ยวกับความเจ็บปวด ฉบับที่ 3 ลงวันที่ 9 มิถุนายน 2551
6. แบบสอบถามคุณภาพชีวิต ฉบับที่ 3 ลงวันที่ 9 มิถุนายน 2551
7. แบบสอบถามข้อมูลส่วนตัวสำหรับผู้ดูแลฉบับที่ 3 ลงวันที่ 9 มิถุนายน 2551

เอกสารเลขที่ ...89.../2551

8. แบบสอบถามความรู้สึกเป็นภาระ (The Zarit Burden Interview) ฉบับที่ 3 ลงวันที่ 9 มิถุนายน 2551
9. แนวคำถามที่ใช้ช่วยในการสัมภาษณ์ ฉบับที่ 3 ลงวันที่ 9 มิถุนายน 2551

คณะกรรมการพิจารณาการศึกษาวิจัยในคน กระทรวงสาธารณสุข ได้พิจารณาโครงการแล้ว คณะกรรมการฯ พิจารณาอนุมัติในแง่จริยธรรมให้ดำเนินการศึกษาวิจัยเรื่องข้างต้นได้ ทั้งนี้โดยยึดตามเอกสารฉบับภาษาไทยเป็นหลัก อนึ่ง ท่านต้องรายงานสถานะของโครงการให้คณะกรรมการฯ ทราบทุกปี เพื่อขออนุมัติดำเนินโครงการต่อจนกว่าจะหมดอายุโครงการ

[redacted]
.... ประธานคณะกรรมการ
(นายเรวัต วิศรุตเวช)

[redacted]
.... กรรมการและเลขานุการ
(นายปกรณ์ ศิริยง)

รับรองตั้งแต่วันที่ 25 มิถุนายน 2551 ถึงวันที่ 24 มิถุนายน 2552

Appendix 7

Individual trial and error sequences for chronic pain self-management

Individual trial and error sequences for chronic pain self-management of the elderly participants

Table 1 Individual trial and error sequences for chronic pain self-management[1]

Participant's ID	First step	Second step	Third step	Fourth step
1, 18	TM/WM/L/A			
2	TM	WM	TM/L/A	
3, 31	WM	TM/L/A		
4, 15, 16, 30	TM/L/A			
5	WM	TM	WM/L/A	
6, 9	WM			
7	WM (Steroid)in TM package	TM	WM	TM L/A
8	WM	L/A	TM/L/A	
10	WM/TM	WM/TM/L/A		
11	WM (Public & Private)	WM (Private only)		
12	TM	L/A/WM		
13	WM/TM	L/A		
14	TM	WM (OTC Steroid)/ L/A		
17	WM	TM/WM/L/A		
19	WM/TM	TM		
20	TM	L/A		
21	L/A			
22	TM/WM	TM/WM/L/A		
23	TM	WM/TM/L/A		
24	WM/L/A			
25	TM/WM	WM		
26	TM/WM	WM/L/A		
27	WM	TM	WM (Steroid) in TM packageL/A	
28	TM	WM (OTC Steroid)/L/A		
29	WM (OTC Steroid)	L/A		
32	WM	TM	L/A	

Note:

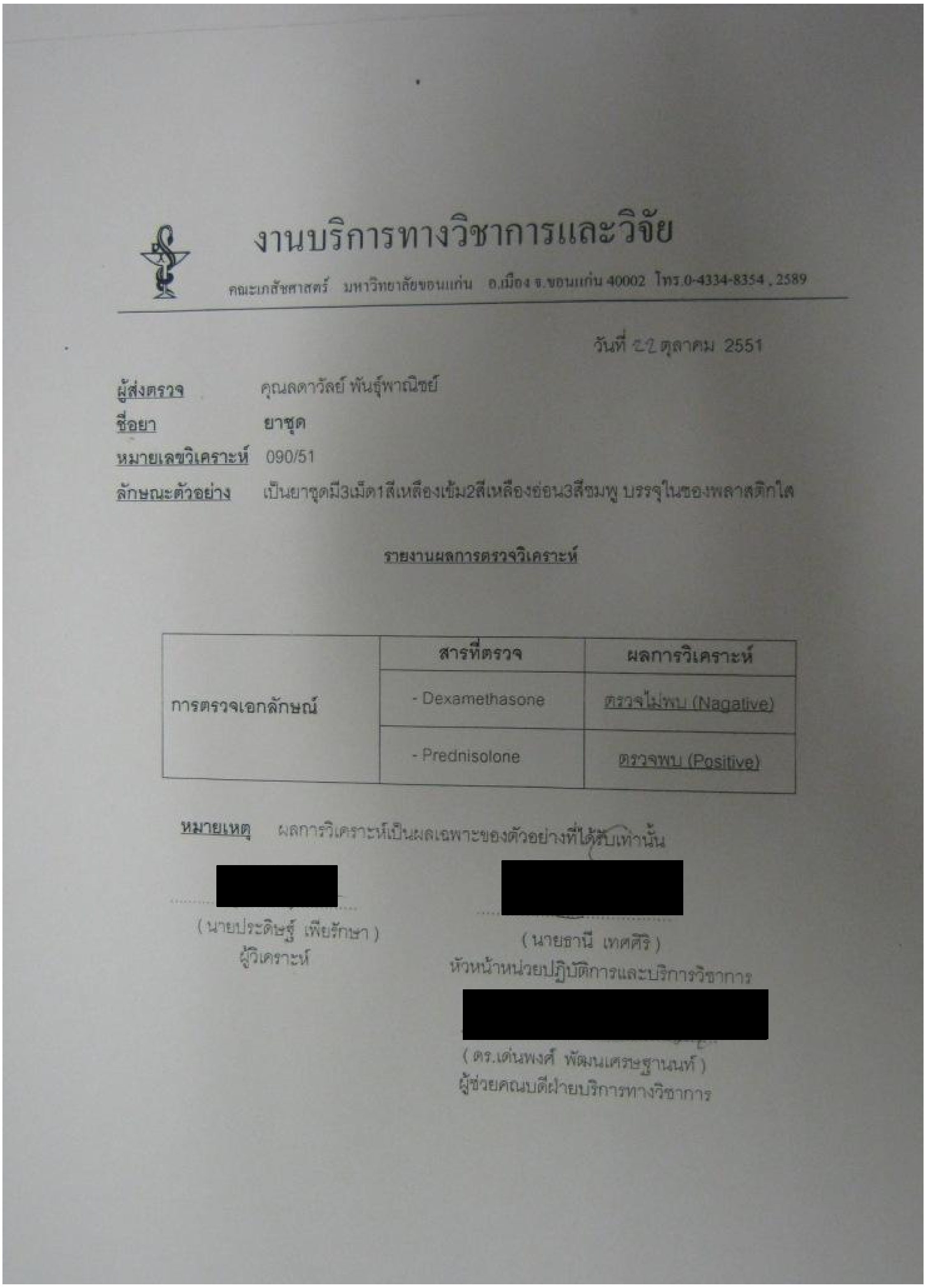
[1] WM denotes Western-oriented Medicine TM denotes Traditional Medicine
L/A denotes Lay-informed Approaches OTC denotes Over-The-Counter medicines

Table 2 Summary of treatment types used

Treatment types	Numbers used in an initial trial and error step	Numbers used in the final trial and error step
Western-oriented Medicine	18	16
Traditional Medicine	15	17
Lay-informed Approaches	4	24

Appendix 8

The results of pharmaceutical analysis of samples of participants' over-the-counter medication from the central laboratory of Faculty of Pharmaceutical Sciences, Khon Kaen University



งานบริการทางวิชาการและวิจัย

คณะเภสัชศาสตร์ มหาวิทยาลัยขอนแก่น อ.เมือง จ.ขอนแก่น 40002 โทร.0-4334-8354 , 2589

วันที่ 22 ตุลาคม 2551

ผู้ส่งตรวจ คุณลดาวัลย์ พันธุ์พาณิชย์

ชื่อยา ยาชุด

หมายเลขวิเคราะห์ 090/51

ลักษณะตัวอย่าง เป็นยาชุดมี3เม็ด1สีเหลืองเข้ม2สีเหลืองอ่อน3สีชมพู บรรจุในซองพลาสติกใส

รายงานผลการตรวจวิเคราะห์

	สารที่ตรวจ	ผลการวิเคราะห์
การตรวจเอกลักษณ์	- Dexamethasone	ตรวจไม่พบ (Nagative)
	- Prednisolone	ตรวจพบ (Positive)

หมายเหตุ ผลการวิเคราะห์เป็นผลเฉพาะของตัวอย่างที่ได้รับเท่านั้น

[redacted]

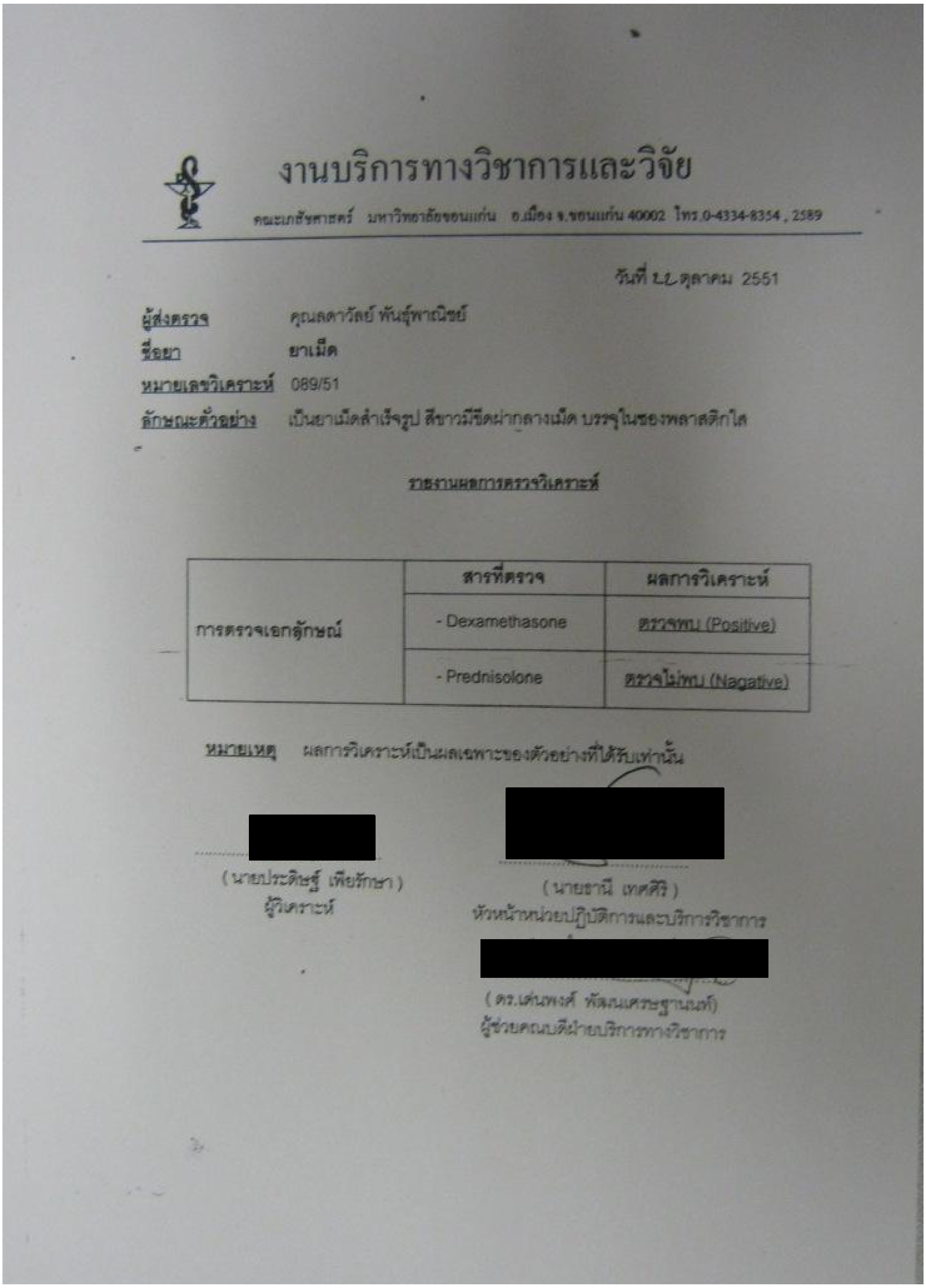
(นายประดิษฐ์ เพียรักษา)
ผู้วิเคราะห์

[redacted]

(นายธานี เทศศิริ)
หัวหน้าหน่วยปฏิบัติการและบริการวิชาการ

[redacted]

(ดร.เด่นพงศ์ พัฒนเศรษฐานนท์)
ผู้ช่วยคณบดีฝ่ายบริการทางวิชาการ



งานบริการทางวิชาการและวิจัย

คณะเภสัชศาสตร์ มหาวิทยาลัยขอนแก่น อ.เมือง จ.ขอนแก่น 40002 โทร.0-4334-8354 , 2589

วันที่ ๒๒ ตุลาคม 2551

ผู้ส่งตรวจ คุณลดาวัลย์ พันธุ์พาณิชย์
ชื่อยา ยาเม็ด
หมายเลขวิเคราะห์ 089/51
ลักษณะตัวอย่าง เป็นยาเม็ดสำเร็จรูป สีขาวมีขีดผ่ากลางเม็ด บรรจุในซองพลาสติกใส

รายงานผลการตรวจวิเคราะห์

	สารที่ตรวจ	ผลการวิเคราะห์
การตรวจเอกลักษณ์	- Dexamethasone	ตรวจพบ (Positive)
	- Prednisolone	ตรวจไม่พบ (Nagative)

หมายเหตุ ผลการวิเคราะห์เป็นผลเฉพาะของตัวอย่างที่ได้รับเท่านั้น

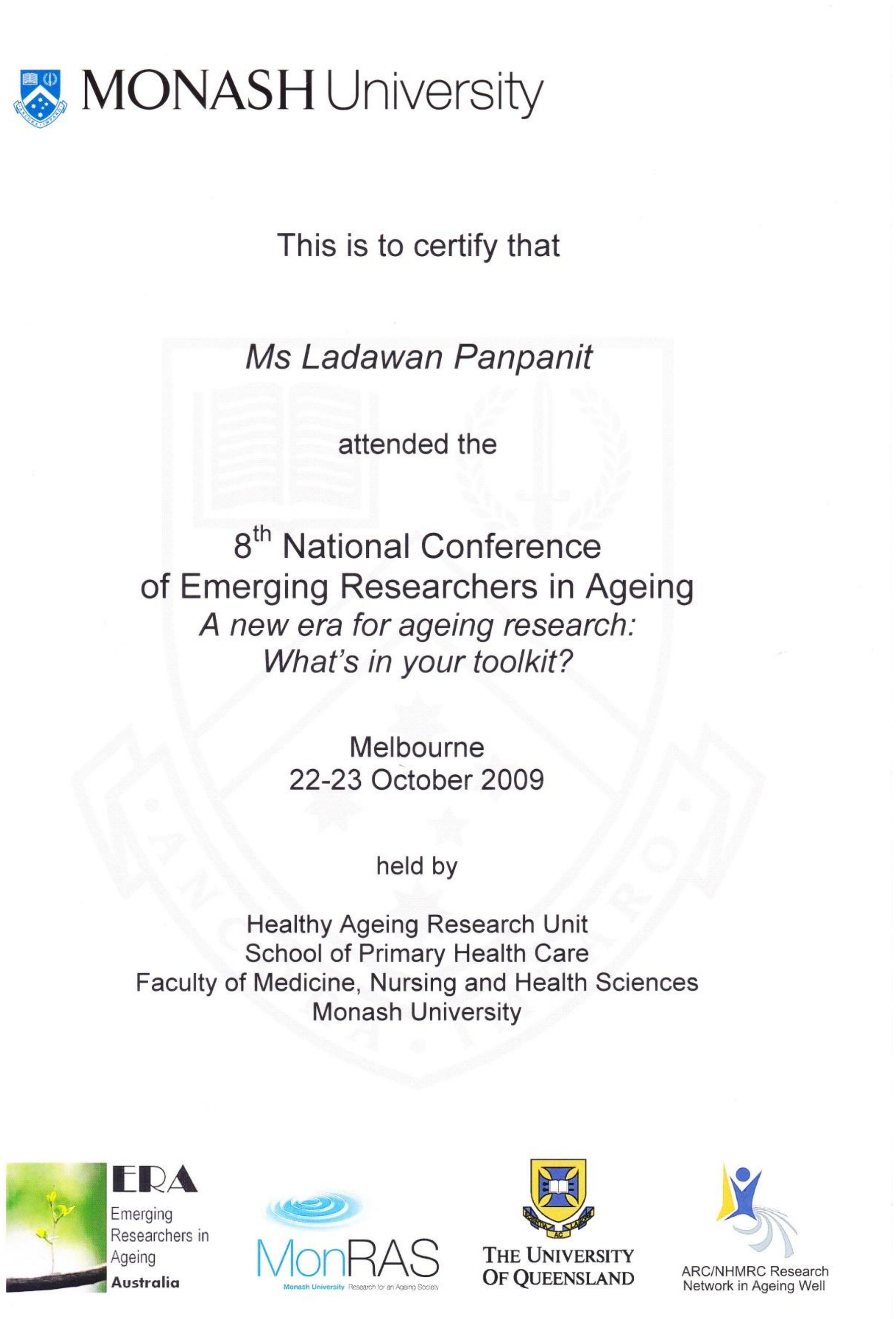
[redacted]
(นายประดิษฐ์ เพียรักษา)
ผู้วิเคราะห์

[redacted]
(นายธานี เทศศิริ)
หัวหน้าหน่วยปฏิบัติการและบริการวิชาการ

[redacted]
(ดร.เด่นพงศ์ พัฒนเศรษฐานนท์)
ผู้ช่วยคณบดีฝ่ายบริการทางวิชาการ

Appendix 9

The researcher’s attendance
at *the 8th National Conference of Emerging Researchers in Aging 2009*



MONASH University

This is to certify that

Ms Ladawan Panpanit

attended the

8th National Conference
of Emerging Researchers in Ageing
A new era for ageing research:
What's in your toolkit?

Melbourne
22-23 October 2009

held by

Healthy Ageing Research Unit
School of Primary Health Care
Faculty of Medicine, Nursing and Health Sciences
Monash University

ERA
Emerging Researchers in Ageing
Australia

MonRAS
Monash University Research for an Ageing Society

THE UNIVERSITY OF QUEENSLAND

ARC/NHMRC Research Network in Ageing Well

Appendix 10

The researcher’s presentation of the study
at *The International Federation on Ageing 10th Global Conference 2010*

PROGRAM

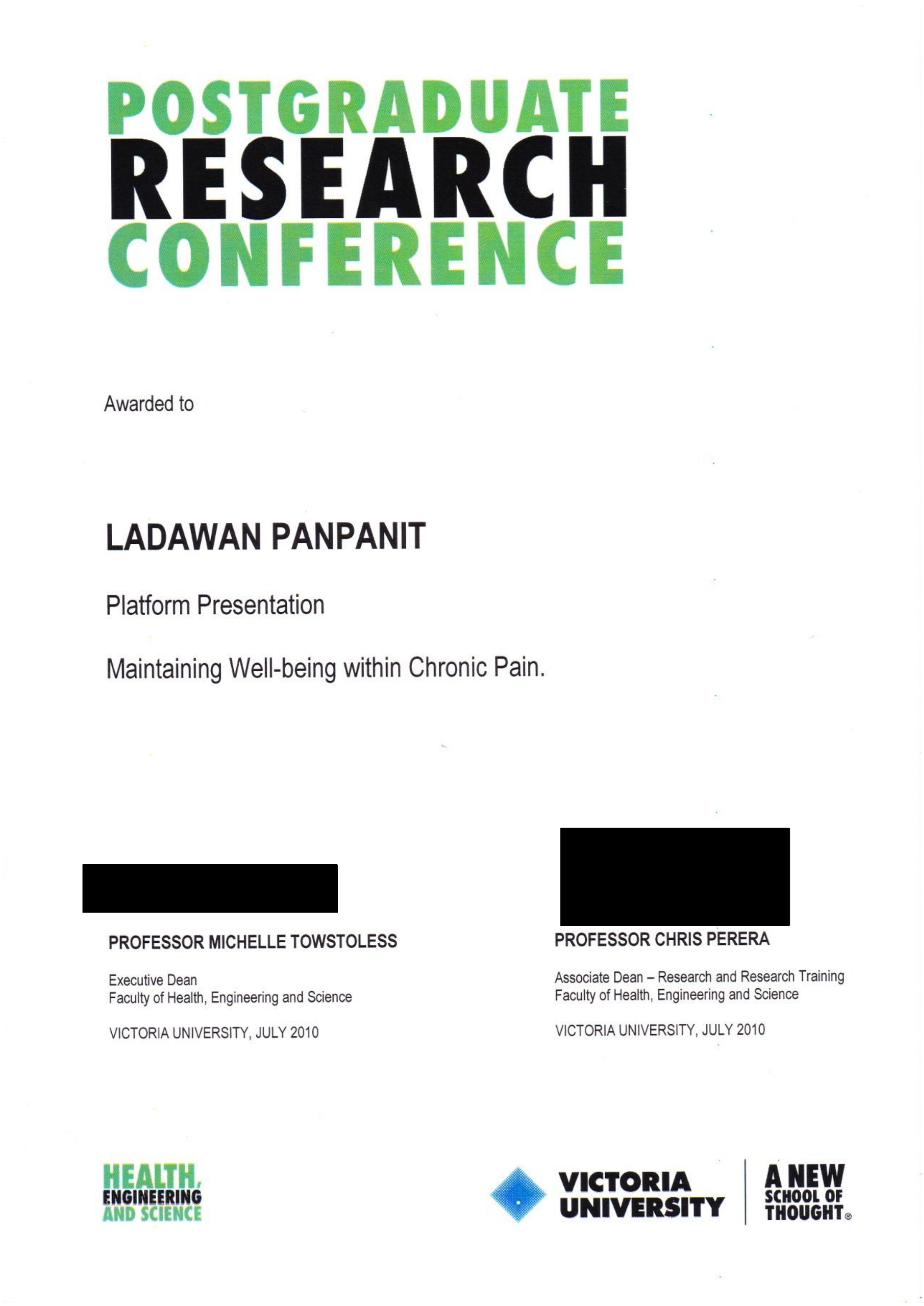
Tuesday 4 May 2010

1030 – 1200	Chronic Conditions	Room 217
1030	**Interactions of Forms of Chronic Illness in Cognitive Functioning: The Case of Cardiovascular and Renal Disease** E. Helmes, Australia	
1045	**Does Living in Cities Long-Term Increase the Prevalence of Chronic Disease in the Ageing?** D. Black, Australia	
1100	**The Effect of Co-Morbidity on the Use of Antidiabetics and Adjunctive Cardiovascular Medicines in Australian Veterans with Diabetes** Y. Zhang, Australia	
1115	**The Effect of Laughing Therapy towards the Decreasing of Blood Pressure in Elderly with Moderate Hypertension in West Sumatera, Indonesia** H. Malini, Indonesia	
1130	**Residential Aged Care the Point Bearer in Good Continence Management: Working with a New Technology Called SIMsystem™** J. Lawrence, Australia	
1145	**Costs Faced by Older Australians with Chronic Conditions** L. Yen, Australia	
1030 – 1200	**Reducing Dementia Risk: What is the Evidence, What are the Recommendations and How do we Promote Brain Healthy Lifestyles?** K. Anstey, Australia; M. Valenzuela, Australia; M. Farrow, Australia	Room 218
1030 – 1200	Facing the Future	Room 219
1030	**Financial Recognition and Support to Seniors – The Western Australian Government's Commitment to Seniors' Well-being** R. McSweeney MLC, Australia	
1050	**The Economic Implications of Ageing Societies** G. Lishman, United Kingdom	
1110	**Education and Life-long Learning: Keys to Full Citizenship and Participation in the 21st Century** G. W. Leeson, United Kingdom	
1125	**Australian Legislation and Health Care for Older People** N. Monaghan, Australia	
1140	**Challenges in Australian Aged Care – A Global Pathway?** G. Prior, Australia	
1200 – 1300	Engaging Older People (Session 1 of 2, Continues Thursday at 1300)	Plenary Hall
1200	**Climate Change in Bangladesh: Vulnerabilities and Capabilities of Older People** A. H. Khan, Bangladesh	
1215	**Older People in the Spotlight: Building Resilience as the Climate Changes** S. Beales, United Kingdom	
1230	**Our Future, Our Choice – Partnering for Climate Change Adaptation** W. Mason, Australia	
1245	**Who Cares about Climate Change? Older Australians – Their Leadership, Views and Sacrifices for Sustainability** L. Buys, Australia	
1200 – 1300	Condition Specific Solutions	Room 203
1200	**Self-Management of Chronic Pain by Elderly People Living in Rural Communities in Northeastern Thailand** L. Panpanit, Australia	
1215	**Pension Level Supported Residential Services (SRS) – Oral Health Initiative** D. Harisiou, Australia	
1230	**The Effects of Low Intensity Laser Therapy on Health and Quality of Life of Elderly Patients with Chronic Wounds** L. Karimi, Australia	
1245	**Importance of Recognition and Management of Hearing Loss for Maintaining Social Inclusion and Mental Health** E. Smith, Australia	

18 **INTERNATIONAL FEDERATION ON AGEING** 10TH GLOBAL CONFERENCE

Appendix 11

The researcher's presentation of the study
at postgraduate forums of the Faculty of Health, Engineering and Science
Victoria University



POSTGRADUATE RESEARCH CONFERENCE

Awarded to

LADAWAN PANPANIT

Platform Presentation

Maintaining Well-being within Chronic Pain.

[redacted]

PROFESSOR MICHELLE TOWSTOLESS

Executive Dean
Faculty of Health, Engineering and Science

VICTORIA UNIVERSITY, JULY 2010

[redacted]

PROFESSOR CHRIS PERERA

Associate Dean – Research and Research Training
Faculty of Health, Engineering and Science

VICTORIA UNIVERSITY, JULY 2010

HEALTH, ENGINEERING AND SCIENCE

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