

Family Caregivers for Cancer Patients in Thailand: An Integrative Review

SAGE Open
July-September 2013: 1–10
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DOI: 10.1177/2158244013500280
sgo.sagepub.com


Warunee Meecharoen^{1,2}, Laurel L. Northouse³,
Yupapin Sirapo-ngam¹, and Supreeda Monkong¹

Abstract

This integrative review was conducted to describe findings from Thai studies concerning family caregivers for cancer patients. Twenty-three studies that were published from 1994 to 2009 were considered. There were 15 quantitative studies and 8 qualitative studies. The stress and coping model developed by Lazarus and Folkman was the most popular theory that was used to guide the studies. The variables that were explored in the quantitative studies consisted of social support, stress, coping, caregiver burden, quality of life (QOL), and others. The qualitative findings revealed that there were several themes such as the following: the meaning of being family caregivers for cancer patients, the meaning of care, the experiences of caregivers, and the problems and needs of family caregivers in the Thai context. The evidence from the 23 studies reviewed showed that the state of knowledge of cancer caregivers in the Thai context is at an early stage compared with the state of knowledge in Western countries. More research needs to be done to explore the concepts related to negative and positive outcomes of caregiving.

Keywords

family caregivers, cancer patient, integrative review, Thailand

Introduction

In Thailand, cancer is still a critical health problem because it has been the leading cause of death for more than 10 years (Bureau of Policy and Strategy, Thailand, 2010). There are advances in medicine to treat cancer, but the numbers of cancer patients who die from this disease increase every year. Moreover, there are the ongoing changes in the health care system (American Cancer Society, 2010; Jemal, Siegel, Xu & Ward, 2010). This change has resulted in a shift of cancer care from hospital to home settings (Girgis & Lambert, 2009). The numbers of cancer patients seen in the outpatient department increased from 846,062 cases (14.78/1,000 persons) in the year 2007 to 1,138,585 cases (19.72/1,000 persons) in the year 2009 (Bureau of Policy and Strategy, Thailand, 2010). This shift indicates that the family's involvement in caring for persons with cancer has increased and may reflect an increasing impact of cancer on family members (Given, Given & Kozachik, 2001).

The literature suggests that cancer patients have several kinds of problems and needs including symptom management, disease and treatment monitoring, medication administration, psycho-emotional support, assistance with activities of daily living, and assistance with instrument care (Esper, 2010; Marcusen, 2010). The patient's problems and needs can cause burdens for family caregivers because they are often unprepared to provide care for the patients at home

(Cameron, Shin, Diane Williams, & Stewart, 2004). They also receive only minimal attention from most health care providers, who tend to be focused primarily on the patients' needs (Ferrell et al., 2011). They are a vulnerable and at-risk population that remains neglected by the health care system (Blum & Sherman, 2010). Hence, it is not surprising that research findings revealed that family caregivers' various needs and health concerns pertaining to caring for a loved one with cancer at home are inadequately explored. Specifically, knowledge and information needs have been reported as the greatest needs among family caregivers (Blum & Sherman, 2010). In addition, the results of studies with cancer caregivers found that cancer affects all aspects of family caregivers including their physical, psychological, social, financial, and spiritual well-being (Girgis & Lambert, 2009; Klemm & Wheeler, 2005; Stenberg, Ruland, & Miaskowski, 2010; Wilkinson, 2010). Family caregivers need help from other people and health care providers to

¹Mahidol University, Bangkok, Thailand

²Boromarajonani College of Nursing, Saraburi, Thailand

³University of Michigan, Ann Arbor, USA

Corresponding Author:

Warunee Meecharoen, Boromarajonani College of Nursing, Saraburi 18/64 Tedsaban 4 Road, Tambon Pakpried, Muang District, Saraburi 18000, Thailand.

Email: warunee_mee@yahoo.com

maintain their own well-being and to be able to maintain their role as family caregivers.

From the Western perspective, the studies that focused on caregivers of cancer patients have evolved from an embryonic stage to something resembling adolescence, this following four generations of studies (Lewis, 2006; Lewis, 2009). The literature comprises studies that identify the importance of cancer's impact on the family, including descriptive and hypothesis-testing studies. Studies have moved from primarily stress-adaptation-coping models to family systems models. Furthermore, there are more studies focused on rigorous intervention criteria for caregivers or family members. Those studies are data-based, theory-informed intervention studies developed with the goal of improving family members' adjustment to cancer (Lewis, 2006, 2009). However, there is little information about the state of knowledge of caregivers for cancer patients in Thailand. We will be less effective in planning care if we do not understand the needs of family caregivers for cancer patients in the Thai context. Hence the purpose of this integrative review was to describe findings from studies of Thai family caregivers for cancer patients as a basis for facilitating new directions in research and clinical practice. And so the research question that guided this review was, "What is the state of knowledge about family caregivers for patients with cancer in Thailand?"

Method

The literature review for this study includes a search of the Thailand Library Integrated System (ThaiLIS), the Research Library of National Research Council of Thailand, E-Theses in the Library of Thai universities including Burapha University, Chiang Mai University, Chulalongkorn University, Kasetsart University, Khon Kaen University, Mahidol University, Naresuan University, Prince of Songkla University, and Thammasat University, this with no date limitations. In addition, published articles in Thai journals, hard copy of theses, and reference lists of articles found by hand searching were included in this review. E-theses, research articles, and hard copy of theses that were included in this integrative review had to meet the following inclusion criteria: qualitative or quantitative research design, study participants were adult family caregivers providing care for adult patients with cancer in Thailand, published or unpublished, and in Thai or the English language. Key search terms that were used included caregiver, carer, spouse or partner, relatives, family member, caregiving, and cancer in Thai and the English language. An electronic form was developed by the researcher to record detailed information about research. The data were extracted from the primary study in the following areas: research title, author, year of publication, publication vehicle (e.g., thesis, journal article), research question/purpose, framework, method, variable, instrument, participant, characteristics of caregiver, and findings. Data

were analyzed using descriptive statistics (e.g., frequency, percentages, mean, and range) to describe the information obtained from the research studies. Moreover, content analysis was used to categorize the research findings. Categories that were extracted and presented in this article included study characteristics, conceptual or theoretical frameworks, research variables, sampling techniques and caregivers' characteristics, and research findings.

Results

Study Characteristics

There were 23 studies that met the inclusion criteria. The studies were published from 1994 to 2009. The publications were from 5 journal articles, 17 theses, and 1 dissertation. Of the research designs used in the 23 studies in this review, 15 studies were quantitative design and 8 studies were qualitative design. The quantitative studies comprised 14 descriptive or correlational studies (Chansirimongkol, 2007; Cheewapoonphon, 1998; Issarapanit, 2006; Kasamkijwatana, Phuwarawuthipanich, Nampetch, & Khamwicha, 1996; Kasinpila, 2007; Kaweewiwitchai, 1993; Kunsabal, 2007; Maneewan, Panutat, Sudjinda, & Paisalsuthidaj, 1994; Navacheun, 2009; Oiemhno, 2003; Phligbua, 2005; Pitimana-aree, 2007; Tamtup, 2004; Ungwattansirikul, 2007; Wannasiri, 2005) and one quasi-experimental study (Sakunhongsophon, 1997). The qualitative studies comprised three phenomenological studies (Duandaw, 2004; Kitrungrate, Wonghongkul, Chanprasit, Sutharangsee, & Cohen, 2008; Prechavittayakul, 2006), one ethnography and phenomenological study (Klungkong, 2009), one ethnographic perspective study (Junda, 2004), and three qualitative studies in which the researchers did not provide details of the study design (Maneejumnong, 2008; Srikumnerd, 2008; Wiseso, 2002).

Conceptual Frameworks

All quantitative studies (15 studies) described the conceptual or theoretical frameworks that were used to guide the research. They were the transactional model of stress and coping developed by Lazarus & Folkman in 1984 (seven studies, 46.67%), Roy's adaptation model (two studies, 13.33%), Orem's theory (one study, 6.67%), the concept of caregiver burden developed by Oberst in 1991 (one study, 6.67%), caregiver burden of Zarit, Reever, and Bach-Peterson in 1980 (one study, 6.67%), the Jalowiec concepts of stress coping (one study, 6.67%), and the model developed by the researchers (two studies, 13.33%).

Research Variables

The variables that were explored in the quantitative studies consisted of social support (six studies, 40%), caregiver's

stress (five studies, 33.33%), coping (five studies, 33.33%), caregiver burden (four studies, 26.67%), caregiver's needs (three studies, 20.0%), quality of life (QOL; three studies, 20%), health status (two studies, 13.33%), sense of coherence (one study, 6.67%), adaptation (one study, 6.67%), hope (one study, 6.67%), preparedness (one study, 6.67%), caregiving behavior (one study, 6.67%), and family hardiness (one study, 6.67%).

Sampling Techniques and Caregiver's Characteristics

Most sampling techniques were purposive sampling (22 studies, 95.7%), and one was simple random sampling (one study, 4.3%). The data for the studies were gathered from several sources including tertiary/supertertiary hospitals (17 studies, 73.9%), cancer centers (two studies, 8.7%), home (three studies, 13.0%), and mixed-source (one study 4.3%). Most studies (14 studies, 60.9%) recruited the participants from the outpatient department. The number of study participants ranged from 30 to 270 caregivers in quantitative studies and 7 to 17 caregivers in qualitative studies.

The caregivers' characteristics varied among the studies. The family caregivers ranged from 14 to 79 years of age, with a mean age of 42.91. Most of them were female (66.83%), and married (74.09%). In the 17 studies that reported the relationship between family caregiver and cancer patients, most of them (48.87%) were spouses, and 21.18% were adult children. The types of cancer patients who received care from family caregivers were breast cancer (two studies), head and neck cancer (two studies), mixed types (15 studies), or those that did not specify the type (4 studies). Moreover, most studies (13 studies, 56.52%) focused on several stages of cancer including advanced stage. There were 9 studies that focused on family caregivers for patients with advanced or terminal-stage cancer.

Research Findings

The quantitative studies reported various findings. For example, some studies reported that the family caregivers had moderate to high level of stress and had a fairly good level of QOL (Chansirimongkol, 2007; Pitimana-aree, 2007; Ungwattansirikul, 2007). Studies indicated that the level of caregiver burden, and caregiver needs perceived by family caregivers were at a moderate level (Kasinpila, 2007; Wannasiri, 2005). Family caregivers' problems and needs comprised physical, psychological, financial, family, social, and knowledge (Manewan, et al., 1994). Moreover, correlational studies indicated that there was the relationship between several factors and caregiving outcomes. For example, caregiver's needs were positively related to caregiver burden (Tamtop, 2005; Wannasiri, 2005), family hardiness was negatively related to caregiver burden (Tamtop, 2005), caregiver burden was negatively associated with

caregiver adaptation (Cheewapoonphon, 1998), and social support and coping were positively associated with caregiver's QOL (Pitimana-aree, 2007; Ungwattansirikul, 2007). Details are provided in Table 1.

In the qualitative studies, the experiences of Thai family caregivers varied. The research findings also revealed several themes such as the following: the meaning of being family caregivers of cancer patients, the meaning of care, the experiences of caregivers, and problems and needs of family caregivers in the Thai context. The theme pertaining to the meaning of being family caregivers of patients with cancer comprised four categories: (a) It was time to return favors to the patients, (b) they could take better care of the patients than somebody else who was not a family member, (c) they displayed sympathy, understanding, and willingness to take care of the patients, and (d) it was their responsibility (Wiseso, 2002). The theme pertaining to meaning of care comprised two categories: (a) to help patients in every matter to make them comfortable physically and mentally and (b) to help patients do what they could not do for themselves (Prechavittayakul, 2006). The theme about the caregiver's experiences comprised six categories: (a) "being committed for life to spouses," (b) "enhancing the spouse's comfort," (c) "being a co-sufferer," (d) "readjusting themselves," (e) "appreciating people's support," (f) and "being gratified with self-development and marital life growth" (Kitrungrote, et al., 2008). Details are shown in Table 2.

Discussion

This article is the first integrative review of family caregivers in Thailand. It is acknowledged that there may be several studies that might have been missed because the current database in Thailand falls short of inclusivity; most of the studies were not published in any journals. Even though this review included quantitative and qualitative studies, it is difficult to synthesize information and draw conclusions about the state of knowledge of family caregivers for patients with cancer in Thai culture. Hence, characteristics of family caregivers and related methodological issues will be discussed in this section.

Characteristics of Family Caregivers

In the Thai context, a family caregiver was defined as a family member who has blood relations with patients (i.e., father, mother, sister, brother, son, daughter, nephew, or niece) or a legal relationship (i.e., husband, wife, daughter in law, son in law, or mother in law), who lives in the same house with a loved one with cancer, and who provides unpaid care for a cancer patient (Chansirimongkol, 2007; Cheewapoonphon, 1998; Kasinpila, 2007; Kunsabal, 2007; Pitimana-aree, 2007; Sakunhongsophon, 1997; Tamtop, 2005; Ungwattansirikul, 2007; Wannasiri, 2005). This definition was consistent with the traditional definitions of

Table 1. Summary of Quantitative Studies.

Author and year	Framework	Study design	Sample and setting	Variable	Instrument	Findings
Maneewan et al. (1994)	NA	Survey research	100 patients with advanced cancer and 100 family caregivers	Problems and needs	Problems and needs questionnaire	Problems of caregivers were fatigue and can't work at their job outside the home. Their needs were for knowledge of caregiving, and time for decreasing stress.
Kasamkijwatana et al. (1996)	Roy's adaptation model and model of stress and coping by Lazarus and Folkman (1984)	Ex post facto	88 family caregivers of cancer patients at a tertiary hospital	Health status Social support Need of care	Health status questionnaire Social support questionnaire Caregiving Demand Scale of Oberst (1991)	Model fit with empirical data and confirmed that there was a positive relationship between the spouses and social support.
Sakunhongsoophon (1997)	Roy's adaptation model	Quasi-experimental research	30 caregivers of terminal cancer patients after discharge from Ramathibodi Hospital	Stress Adaptation	The Health Opinion Survey (HOS) Adaptive capabilities questionnaire	There was a statistically significant difference between the mean scores of HOS at the 1st and the 4th weeks ($p < .01$), but no statistically significant difference between the mean scores of HOS at the 2nd and the 4th weeks ($p < .05$).
Cheewapoonphon (1998)	Roy's adaptation model	Descriptive study	200 family caregivers of advanced cancer patients at home	Sense of coherence Caregiver burden	Sense of coherence developed by Antonovsky (1987) Caregiving burden developed by Oberst (1991)	All factors affect caregivers' adaptation as in the conceptual framework. This can explain 41.4% of variance.
Oiemhno (2003)	Transactional model of stress and coping by Lazarus and Folkman (1984)	Descriptive study	40 spouses of breast cancer patients receiving surgery treatment	Coping	Way of coping questionnaire	In the diagnostic phase, postsurgical phase, and rehabilitation phase, the type of coping strategies most used by the majority of samples included seeking social support, problem solving, and positive reappraisal.
Phligbua (2005)	Transactional model of stress and coping by Lazarus and Folkman (1984)	Descriptive study	90 primary family caregivers of patients with chemotherapy	Hope Preparedness Health status	Health hope index Preparedness questionnaire Short Form Health Survey	43.4% had health problems prior to caregiving, and 38.9% developed health problems after caregiving. Moreover, the subjects had perceived hope ($M = 40.60$; $SD = 4.33$), preparedness ($M = 2787.97$; $SD = 408.41$) at rather high levels, whereas they had worry from caring ($M = 38.87$; $SD = 11.06$) at a rather low level. In addition, it was found that worry from caring was negatively related to health status ($r = -.494$, $p < .001$) and could predict health status of caregivers in 24.5% of the sample, while hope was positively associated with health status of caregivers ($r = .433$, $p < .001$) and could predict health status in an additional 10.2%. Finally, preparedness was positively related to health status of caregivers ($r = .320$, $p < .001$), but it did not predict caregivers' health status.

(continued)

Table 1. (continued)

Author and year	Framework	Study design	Sample and setting	Variable	Instrument	Findings
Tamtup (2005)	Zarit, Reever, and Bach-Peterson (1980)	Descriptive study	80 patients with head & neck cancer receiving radiotherapy and their caregiver at a tertiary hospital	Family hardness Subjective burden	Family hardness index Burden Interview	Perceived family hardness and depression of patients explained 42.7% of the variance in the subjective burden of caregivers.
Wannasiri (2005)	Wingate's and Lackey's (1989)	Descriptive study	130 family caregivers of cancer patients selected by simple random sampling from OPD of three supertertiary care hospitals	The needs of family caregiver Fatigue Caregiving burden	Need of Family Caregivers Scale Fatigue Scale The Caregiving Burden Scale	Age was significantly positively related to needs of family caregivers of cancer patients at a low level ($r = .23, p < .05$). Fatigue was significantly positively related to needs of family caregivers of cancer patients at a moderate level ($r = .61; p < .05$). Caregiving burden was significantly positively related to needs of family caregivers of cancer patients at a moderate level ($r = .58; p < .05$).
Issarapanit (2006)	Orem's theory	Descriptive study	100 cancer patients undergoing radiotherapy and their caregivers at a tertiary hospital	Caregivers' capabilities in responding to spiritual needs Caregivers' compassion to spiritual needs	Questionnaires	The mean total score of caregivers' capabilities in responding to the patients' spiritual needs was at a high level. The mean total score of perceived caregivers' compassion toward patients' spiritual needs was at a high level.
Chansirimongkol (2007)	Transactional model of stress and coping by Lazarus & Folkman (1984)	Descriptive study	65 family caregivers of persons with cancer receiving radiotherapy at tertiary hospital	Stress Coping Social support QOL	The semistructured interviewing questionnaire The Jalowiec Coping Scale Social support questionnaire Quality of life index of family caregiver	The mean scores for the family caregivers' stress were at moderate to high levels. Two types of stress situation related to direct care for the persons with cancer and to the impacts of caregiving on the family caregivers' life. Confrontive coping was most used to deal with the stress. The biggest source of support the family caregivers received was from their family members in the forms of emotional support, service, and tangible support. The caregivers perceived a fairly good level of QOL. There was no correlation of the stress level, coping, and social support, to QOL of family caregivers.

(continued)

Table 1. (continued)

Author and year	Framework	Study design	Sample and setting	Variable	Instrument	Findings
Kasinpila (2007)	Oberst (1991)	Descriptive study	70 caregivers who brought cancer patients to receive treatment at inpatient departments in a tertiary hospital	Caregiver-burden	Caregiving Burden Scale developed by Oberst (1991)	Caregivers' burden in providing care varied depending on the type of activity. The average level of care burden perceived by caregivers was moderate. Having to deal with the patients' behavior and emotions was perceived as the most burdensome caring activity.
Kunsabal (2007)	Watson, Cobb, and Sullivan	Descriptive study	125 caregivers of cancer patients undergoing chemotherapy at a cancer center	Caregiving behavior Social support	Caregiving behavior questionnaire Social support questionnaire	The caregiving behavior of caregivers of cancer patients undergoing chemotherapy in the eastern region was rated at the good level. The factors related to caregiving behavior of caregiver of cancer patients undergoing chemotherapy were social support, relationship of caregiver and patient, the knowledge of caregiving of cancer patients with chemotherapy, and the number of caregiving hours, respectively.
Pitimana-aree (2007)	Transactional model of stress and coping by Lazarus and Folkman (1984)	Descriptive study	85 caregivers of surgical oncology patients at a tertiary hospital	Stress Coping Social support QOL	The semistructured interviewing questionnaire The Jalowiec Coping Scale Social support questionnaire Quality of life index of family caregiver	The stress level was moderate. The proportion of coping strategies used, from highest to the lowest, were confrontive, palliative, and emotional strategies. The caregivers received the most support from their family members. The caregivers perceived a fairly good level of QOL. Social support and the stress level accounted for 12%-8% of the variance of perceived quality of life in caregivers of surgical oncology patients after adjusting for the effects of age and education level.
Ungwattansirikul (2007)	Transactional model of stress and coping by Lazarus and Folkman (1984)	Descriptive study	87 family caregivers of cancer persons receiving chemotherapy at a tertiary hospital	Stress Coping Social support QOL	The semistructured interviewing questionnaire The Jalowiec Coping Scale Social support questionnaire Quality of life index of family caregiver	The stress level was moderate. The proportion of coping strategies caregivers used from highest to the lowest was confrontive, palliative, and emotional strategies. The caregivers received the most support from family, friends, and health care professionals. The caregivers perceived a fairly good level of QOL. Coping and social support accounted for 17.7 % of the variance on perceived quality of life of family caregivers.

Table 2. Summary of Qualitative Studies.

Author and year	Study design	Sample and setting	Research focus	Findings
Wisoso (2002)	Qualitative study	12 family caregivers of patients with cancer at the cancer center	To describe the meaning of being family caregivers of cancer patients	The meaning of being family caregivers of cancer patients had four dimensions: (a) it was an opportunity to return a favor to the patients, (b) they could take care of the patients better than somebody else who was not a member of the family, (c) it comprised sympathy, understanding, and willingness in taking care of the patients, and (d) it was their responsibility.
Duandaw (2004)	Husserl phenomenological study	12 caregivers at hospice ward in tertiary care	To explore the health needs of family caregivers of terminal ill cancer patients	Health needs of family caregivers of terminal cancer patients were categorized into six major themes, including (a) May I take a nap? (b) need a helping hand, (c) morale support is important, (d) being with him until the last minute, (e) being hopeful, and (f) want to see the doctor but I can't/try to stay healthy as a caregiver.
Junda (2004)	Ethnographic perspective study	11 women with breast cancer and 17 members of the family at the University Hospital in Bangkok	To explore the experiences of families of women with breast cancer	"Doing what is best for us/our health" was the main rationale in helping the families adjust to breast cancer. The families reported using multiple methods to manage breast cancer including intrafamily support, interaction, and communication in the family.
Prechavittayakul (2006)	Phenomenological study	13 relatives of head and neck cancer patients receiving radiotherapy at Yensira hostel	To describe and discuss experiences and factors affecting relatives of head and neck cancer patients receiving radiotherapy	The meanings of care were (a) to help patients in every matter to make them comfortable physically and mentally, and (b) to help patients do what they could not do by themselves.
Kitrungrote et al. (2008)	The hermeneutic phenomenological approach	15 spousal caregivers at a tertiary hospital	To describe the experiences of caregivers of spouses with HNC undergoing radiotherapy	The experiences of caregivers were identified including (a) "Being committed for life to spouses," (b) "Enhancing the spouse's comfort," (c) "Being a co-sufferer," (d) "Readjusting themselves," (e) "Appreciating peoples' support," (f) "Being gratified with self-development and marital life growth."
Maneejumnong (2008)	Qualitative design	10 caregivers of end of life cancer patients at home	To study the experience of holistic care of caregivers among end of life cancer patients	The experience of caregivers was (a) seeking of more knowledge, (b) empathy for the patients, (c) spiritual empowerment.
Srikumnerd (2008)	Qualitative study	Seven caregivers and ten terminal-stage cancer patients in the community	To describe the perception of patients with terminal-stage cancer, their family, and related people in the community	Caregiver's problems included stress. Sometimes caregivers had no help from others and had no skill for caring. Economic problems were having high expenses, leaving their jobs and losing income, and going into debt. Problems of the health care system were out of reach information, long waiting times for service, complicated process, no strong analgesics in primary care units, limitation of referral system, staff having inadequate time, unskillful staff, and staff's lack of concern.
Klungkong (2009)	Ethnographic and phenomenological study	Nine caregivers of Muslim end-stage cancer patients	To study spiritual health of caregivers in the case of Muslim end-stage cancer patients	The situation of end-stage cancer has emotional impacts on caregivers that often affect the relationship between caregivers and patients. All caregivers believed that pain and disease were decreed by God or Allah. Despite several problems encountered during the care of the patients, the caregivers deeply believed in God's help. If patients died, the caregivers would accept it. This reflected that caregivers' wills were determined by religious study of Islam. Their will to conduct their duties came from spiritual strength based on religious study.

family that includes a nuclear family comprising father, mother, and one or more children, or the extended family comprising grandparents, aunts, uncles, and cousins (Blum, 2010). Although the National Family Caregivers Association (2010) stated that defining the meaning of family caregivers was complicated and varied according to the people who defined it, the Thai definition of family caregiver seemed similar to its meaning in the Western perspective. However, according to the definition in the Thai context, a family caregiver usually referred to a person in an extended family, and the Western family caregiver was often referred to as a person in a nuclear family. The extended family scenario might have advantages for Thai patients with cancer because they will have several personal resources that can help them to deal with their cancer effectively. In both cultures, the family caregiver was usually a wife, mother, grandmother, or other female family member because caregiving was viewed as a feminine activity or quality (Blum, 2010). So, it is not surprising that this review found that most of family caregivers were female.

Methodological Issues

Methodological issues that were discussed in this section included the study's theoretical framework, samples issues, and instrument issues.

All Thai studies in the review were developed by master's or doctoral students and the nursing faculty from several universities. Moreover, the researchers used the conceptual or theoretical framework to guide their research. Therefore, it is believed that all studies that were included in this review were developed by using rigorous scientific methodology.

Theoretical framework. The stress and coping model developed by Lazarus & Folkman (1984) was the most popular theory that was used to guide the research. If we compare the studies in Thailand to studies in Western countries, it can be seen that Thai studies were consistent with the second generation of cancer caregiver studies in Western countries, studies that focused on the seriousness or magnitude of stress that cancer caused in their caregivers (Lewis, 2009). The studies in this generation used the stress-adaptation-coping model as a guide. Although the Thai studies used models that were developed in Western contexts, the research findings revealed that those models fit with the data in the Thai context. But increased model testing needs to be done in Thailand in any case.

Sample issues. There was limited access to the participants who were family caregivers for cancer patients in Thailand because there is no adequate database concerning said cancer caregivers. Most participants (97.1%) in the studies were recruited by purposive sampling from outpatient department in the tertiary hospitals. There were only 47 caregivers who were recruited from home-based settings. Most quantitative

studies (60%) had small sample sizes (< 100 samples). As a result, the current research findings cannot be generalized to the cancer caregiver population as a whole. If researchers want to increase their understanding about caregiver's experiences and outcomes, they need to increase recruitment of more participants in community or home-based settings. This should help refine the database for future studies.

Instrument issues. Evidence suggests that most instruments for data collection in the Thai studies were borrowed from Western cultures. Examples of the instruments that were translated into Thai language were the Zarit Burden Interview (ZBI) developed by Zarit, Reever, and Bach-Peterson (1980); the family hardiness index (FHI) developed by McCubbin Thompson, and McCubbin (1996); the Jalowiec Coping Scale (JCS) developed by Jalowiec (1988); and the social support questionnaire (SSQ) developed by Schaefer et al. (1981). Although these instruments were developed in Western contexts, they continued to have high reliability when used in Thai culture. However, researchers still need to assess these carefully when they use the translated questionnaires because the characteristics of Thai caregivers may be different from Western caregivers. In the Thai context, religion, belief, culture, and traditional ways of life played major roles in the caring for family members. The caregiving for patients who were their spouses or parents was a way to show appreciation. Taking care of a family member is an affective reward and a strong norm of familial obligation in the Thai culture (Caffrey, 1992; Thongprateep, 2005). Buddhist caregivers especially believed that caring was a way to reimburse for past good deeds, to gain merit, and to return gratitude to their relatives. The caregiving role was perceived as an integral part of a Thai's life, an unavoidable task that was provided with love, sympathy, and attachment (Subgranon & Lund, 2000). Conversely, Western people are normally more independent from family ties than people in Asian countries. When Westerners assume roles as primary caregivers, they may experience more suffering because they are less likely to be familiar with such new roles. Therefore, impacts of cancer caregiving may differ widely between Thais and those adhering to Western caregivers' perceptions.

Conclusion and Recommendations

The number of cancer caregivers should increase continuously in the near future. Evidence from the 23 studies reviewed showed that the state of knowledge concerning cancer caregivers in the Thai context is in an embryonic state compared with the state of knowledge in Western countries. The research findings revealed that providing care for cancer patients has various impacts on caregivers. Several concepts related to caregiver outcomes (i.e., caregiver burden, caregiver's QOL, coping, and social support) need to be examined more closely. There are some possible limitations of the present review.

First, there may be a number of studies that might have been missed because of the inadequacy of the database in Thailand; most of the studies cited were not published in any journals. Second, all of the studies were developed by nursing scientists. So the state of knowledge may be not broad in scope. Third, all studies in this review were developed by nursing educators rather than by nurses in a clinical setting. The present study may not fully reflect the phenomena of caregiving from the clinical perspective. Future research needs to further explore the concepts related to negative and positive outcomes of caregiving. More studies are needed with focus on sample sizes, and which include sensitivity to measurements specific to Thai culture. Expanding the understanding of caregiving's impact and related factors in cancer caregiver populations would enable nurses to develop innovative interventions to decrease negative outcomes and improve positive outcomes of caregiving for cancer patients.

Declaration of Conflicting Interests

The author(s) declared no potential conflicts of interest with respect to the research, authorship, and/or publication of this article.

Funding

The author(s) received no financial support for the research and/or authorship of this article.

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Author Biographies

Warunee Meecharoen is a nursing instructor at Boromarajonani College of Nursing, Saraburi and a Ph.D. Candidate at Mahidol University, Thailand.

Laurel L. Northouse is a professor at School of Nursing, University of Michigan, Ann Arbor. She is a nurse scientist in the field of cancer research.

Yupapin Sirapo-ngam is an associate professor Ramathibodi School of Nursing, Mahidol University, Thailand. Her career focus on the field of caregivers and patients with chronic illness such as cancer, stroke.

Supreeda Monkong is an assistant professor at Ramathibodi School of Nursing, Mahidol University, Thailand. Her career focus on the field of caregivers and patients with chronic illness such as cancer, stroke.