

# A Causal Model of Psychological Distress of Thai Family Caregivers of People with Major Depressive Disorder

Sudarat Pianchob, Sopin Sangon, Yajai Sitthimongkol, Reg Arthur Williams, Pisamai Orathai

**Abstract:** The purpose of this cross-sectional correlational research was to examine how burden, social support, sense of belonging, problem-focused coping, and emotion-focused coping influenced psychological distress in family caregivers of people with a major depressive disorder. The conceptual model was built on Lazarus and Folkman's theory of stress and coping, and related literature. Multistage sampling was employed to recruit 204 family caregivers of people with a major depressive disorder. The caregivers were asked to complete 6 questionnaires including: the Involvement Evaluation Questionnaire, Social Support Questionnaire, Sense of Belonging Instrument, Ways of Coping Questionnaire, General Health Questionnaire-12, and General Information Questionnaire. Structural equation modeling was used to examine a hypothesized model.

The results revealed that the hypothesized model fitted the empirical data and 64% of the variance of psychological distress was explained. Burden had the strongest positive direct effect on psychological distress and an indirect effect on psychological distress through emotion-focused coping. Social support had an indirect effect on psychological distress through emotion-focused coping. Sense of belonging had a negative direct effect on psychological distress. Findings indicated that the Causal Model of Psychological Distress of Thai Family Caregivers of People with Major Depressive Disorder provides a guideline for understanding psychological distress of these family caregivers caring for people with a major depressive disorder. Mental health care providers, including nurses, should help to relieve burden, strengthen the sense of belonging, and promote appropriate coping strategies in order to decrease psychological distress of such family caregivers.

*Pacific Rim Int J Nurs Res 2014; 18(3) 173-186*

**Keywords:** Caregiver burden, Social support, Sense of belonging, Coping, Depression, Psychological distress

## Introduction

Major depressive disorder (MDD) is a significant mental health problem throughout the world, which can cause severe distress and dysfunction and constitutes both social and economic burdens for families, communities and societies. MDD is a chronic psychiatric illness and commonly a progressive and recurrent illness.<sup>1</sup> Over time, episodes tend to occur more frequently, become more severe, and are of a

**Sudarat Pianchob**, PhD (Candidate), RN. Faculty of Nursing Mahidol University, Bangkok, Thailand 10400 **E-mail:** sudarat\_kae@yahoo.com

**Correspondence to:** **Sopin Sangon\***, PhD, RN. Assistant Professor Ramathibodi School of Nursing, Faculty of Medicine Ramathibodi Hospital, Mahidol University, Bangkok, Thailand

**E-mail:** sopin\_mu@yahoo.com

**Yajai Sitthimongkol**, PhD, RN. Associate Professor. Faculty of Nursing Mahidol University, Bangkok, Thailand

**Reg Arthur Williams**, PhD, RN, BC, FAAN. Professor Emeritus University of Michigan School of Nursing Ann Arbor, Michigan, United States

**Pisamai Orathai**, PhD, RN. Assistant Professor. Ramathibodi School of Nursing, Faculty of Medicine, Ramathibodi Hospital, Mahidol University, Bangkok, Thailand

longer duration.<sup>1</sup> Families are an important source of home care and support for their family member with MDD. There are many duties and responsibilities that family caregivers have such as responding to basic needs, helping with daily living activities, protecting the person from potential self-harm and relapse, and earning a living to meet household expenses.<sup>2,3</sup> These duties and responsibilities reduce the available time for caregivers to take care of themselves, engage in daily living activities, participate in social activities, and cause psychological distress in themselves.<sup>4,5,6</sup>

Psychological distress in caregivers of people with MDD (PWMDD) is an important to consider but unfortunately, most of available evidence related to this distress relates to Western countries. Findings reveal that several factors, including higher caregiver burden, lower social support and lower sense of belonging, lower problem-focused coping, and higher emotion-focused coping, were associated with psychological distress of caring for PWMDD<sup>5,7,8,9,10,11</sup> However, these studies have simply described potential associated factors, without any analysis of the structural processes involved regarding their influence on psychological distress of family caregivers. The purpose of this study was to examine how burden, social support, sense of belonging, problem-focused coping, and emotion-focused coping influence psychological distress in family caregivers of PWMDD since there is no study regarding this in Thailand. Studying the pattern of relationships among such factors is significant for nurses and other mental health care providers to help reduce stress effectively in this population.

### **Conceptual Framework**

The conceptual model for this study was built on Lazarus and Folkman's theory of stress and coping<sup>12</sup> and other related literature. Lazarus and Folkman<sup>12</sup> proposed a stress and coping theory regarding the theoretical understanding of stress,

coping process and health outcomes of a person. They also described that the negative effects of stress as well as burdening situations on health are influenced by a person's coping strategies, their cognitive appraisal of situations, and the resources available to them. In this study, individuals' cognitive appraisal of stressful situations (burden), the external and internal resources available for social support and a sense of belonging, and the choice of coping both problem-focused and emotion-focused coping were selected as framework concepts explained by the above theory. Individuals' cognitive appraisal, external and internal resources can shape the coping process, which in turn, also affects adaptive outcomes (psychological distress) over time. The main essence of stress and coping theory is the process of coping mediating the effects of stress as well as burden on the person's health and well-being.<sup>12</sup>

### **Review of Literature**

There is evidence that family caregivers of PWMDD experience moderate to high levels of psychological distress<sup>5,6,7,8</sup> and that such distress has often been studied as both a burden and a predictor of psychological distress.<sup>10,13,14,15,16</sup> Family caregivers who have a high level of burden were also more likely to have high psychological distress.<sup>7,8</sup> Furthermore, burden was negatively associated with problem-focused coping<sup>17,18</sup> and positively associated with emotion-focused coping.<sup>5,19</sup>

In coping with the situation of burden, family caregivers need coping resources, internal and external for appropriate adaptive outcomes, one of which is good psychological health. In the context of caring for PWMDD, social support is a key external resource. Family caregivers of people with depression can cope with stressful events better when they have support from others<sup>5</sup> and perceived adequacy and availability of social support promotes the use of problem-focused coping.<sup>20</sup> Additionally, empirical evidence provides consistent information that social support was also

negatively associated with psychological distress of caregivers of PWMDD.<sup>5,9</sup> Besides, social support can shape the coping process, involving both problem-focused and emotion-focused coping, and then ultimately affect psychological distress in family caregivers of PWMDD.<sup>12</sup>

A sense of belonging is an important coping resource and this, according to Lazarus and Folkman's stress and coping theory, can be categorized into the internal resources of person, and viewed as the person perceives themselves as being valued or important to others in society.<sup>21</sup> As a result of caring for family members with MDD, evidence reveals that caregivers have experienced sense of isolation from the society.<sup>22</sup> They have described feeling unappreciated, blamed, and misunderstood by the general public.<sup>22</sup>

When applying Lazarus and Folkman's theory<sup>12</sup> to family caregivers of people with MDD who have a high level of internal resources (such as sense of belonging) they are assumed to be more likely to

develop effective coping strategies, such as problem-focused coping in stressful situations. Once family caregivers appraise their resources, they may use different coping strategies for stressful situations. Generally, emotion-focused coping is more likely to be used when the situation has been appraised that nothing can be done to change the harmful situation. On the other hand, problem-focused coping is more likely to be used when the situation has been appraised that something can be done to try to alter or handle the stressful situation.<sup>12</sup> Coping is a significant predictor of better adaptive outcomes, and this can include caregivers' psychological health.<sup>12</sup> Caregivers who use more problem-focused coping strategies had better psychological health, and caregivers who use more emotion-focused coping had worse.<sup>10,11</sup> Additionally, coping strategies also function as mediators between burden and adaptive outcomes such as psychological distress.<sup>11,23</sup> The hypothesized model of this study is presented in Figure 1.

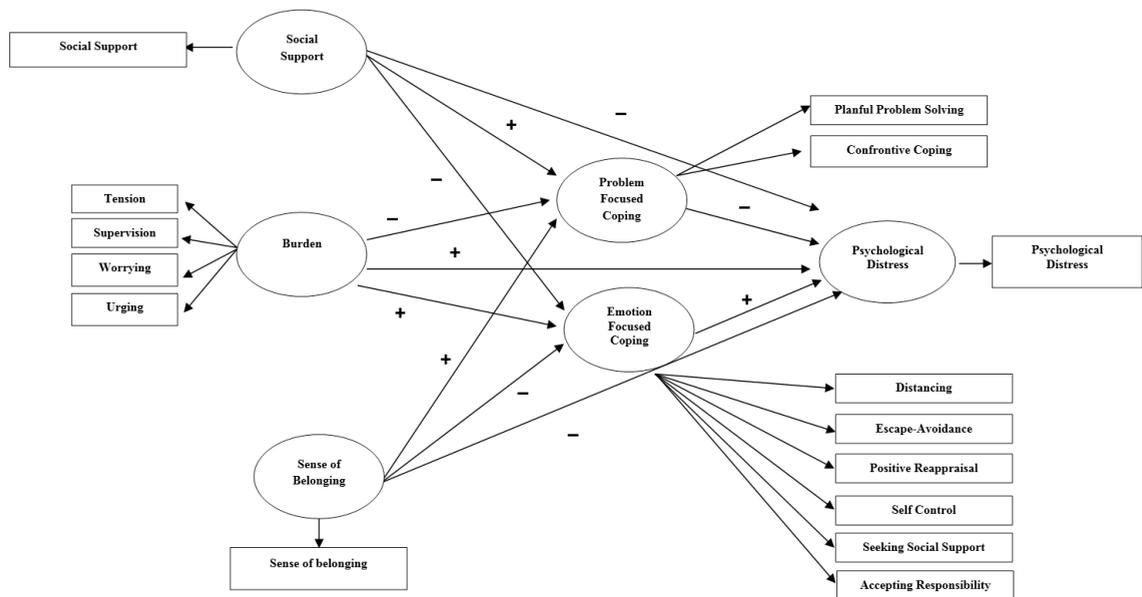


Figure 1 The Hypothesized Model of Factors Predicting Psychological Distress of Family Caregivers of People with MDD

## Method

**Design:** A cross-sectional, correlation design.

**Participants and setting:** Data were obtained from family caregivers of PWMDD who received care at outpatient units in two hospitals in Bangkok, Thailand. These hospitals are tertiary care centers and provide similar services. The inclusion criteria were: (1) identifying themselves as family members primarily responsible for the patient's care; (2) having cared for this person for at least six months; (3) not caring for another person with chronic illness who is dependent; (4) not receiving a salary or reward for their caring role; (5) age  $\geq 18$ ; (6) being able to communicate in the Thai language; and (7) willing to participate in the study.

**Sample size:** This was determined by Cohen's statistical power analysis for an alpha of .05, a power of .80 and a medium effect size (.30). Based on these criteria, at least 204 family caregivers of PWMDD were required.

**Sampling technique:** Multi-stage sampling was used to select the sample from two representative hospitals. The sample was calculated according to the proportion of the PWMDD per year in each hospital. Therefore, among 204 family caregivers, 42% (N=86) were recruited from one setting and 58% (N=118) from the other.

**Ethical considerations:** Prior to implementation, approval to conduct the study was obtained from the Committee on Human Rights Related to Research Involving Human Subjects of the Faculty of Medicine, Ramathibodi Hospital, Mahidol University and the other hospital used as study site. A verbal explanation of the objectives, procedure, the right to refuse to participate or withdraw from the study, and protection of confidentiality were clearly stated to potential participants. Written consent was obtained from those willing to participate.

**Instruments:** Data were obtained using 6 questionnaires as follows:

*The Involvement Evaluation Questionnaire (IEQ)* measures caregiver burden and was developed by Schene and Wijngaarden.<sup>24</sup> It has 27 items for measuring 4 perceptions of family caregiving, tension, supervision, worrying and urging. Tension refers to the strained interpersonal atmosphere between patient and caregiver. Urging refers to activation and motivation. Worrying covers painful interpersonal cognitions such as concern about the patients' safety and future, general health and health care. Supervision refers to the caregivers' tasks of guarding the patients' medicine intake, sleep and dangerous behavior.<sup>24</sup> The IEQ was translated into the Central Thai language by a bilingual translator and then back-translated into English by another bilingual person using techniques suggested by Brislin.<sup>25</sup> The IEQ uses a 5-point Likert scale ranging from 0 (never) to 4 (always). Two examples of items are: "How often during the past 4 weeks has your relative/friend caused a quarrel?" (tension); "How often during the past 4 weeks have you encouraged your relative/friend to take proper care of her/himself (e.g. washing, bathing, or brushing teeth)?" (Urging). The total score is obtained by summing the numerical value of the responses across questions, with higher scores indicating higher level of caregiver burden. Possible scores can range from 0-108. A previous study determined the Cronbach's alpha as 0.87.<sup>26</sup> The content of the IEQ Thai version was validated by a panel of five experts to confirm the clarity and appropriateness of the domain, and were two nurse instructors of psychiatric nursing, a nurse instructor specializing in family caregiving of people with chronic illness, a psychiatrist, and an advanced practice psychiatric nurse. The CVI of IEQ Thai version for this study was 0.97 and Cronbach's alpha coefficient was 0.79.

*The Social Support Questionnaire (SSQ):* Due to similar patterns and characteristics of illness between people with schizophrenia and PWMDD, the Thai version of SSQ by Pipatananond<sup>27</sup> was used. The

original SSQ was developed by Schaefer et al.<sup>28</sup> It is a 35-item self-report instrument for measuring emotional, tangible and information support from 5 resources: family which include spouses, parents, and children; siblings and relatives; friends, coworkers, and neighbors; other providers in the community such as traditional doctors, priests, etc. and health care providers. The SSQ is rated on 5-point Likert scale ranging from 0 (not at all) to 4 (a great deal). Examples of items are: “How much did friends give you information, suggestion, and guidance during your giving care for this ill person?” and “How reliable are your friends when you need their help during your care giving?” To score the SSQ, participants were asked to rate each of the lists of 5 resources of social support. The total score is obtained by summing the numerical value of the responses in all resources, with higher scores indicating higher level of social support. Possible scores range from 0–140. The result of a previous study showed Cronbach’s alpha was 0.96.<sup>27</sup> The content validity of SSQ Thai version was validated by a panel of 5 experts. The CVI of SSQ Thai version for this study was 0.92 and the Cronbach’s alpha coefficient was 0.89.

*Sense of Belonging Instrument, Psychological (SOBI-P) Thai Version*<sup>29</sup> is based on the original instrument developed by Hagerty and Patusky.<sup>30</sup> It measures sense of belonging, the experience of personal involvement, so that persons feel themselves to be an integral part of that system or environment.<sup>21</sup> The back-translation technique of Sangon<sup>29</sup> was used to translate the instrument into Central Thai, that is one bilingual translator developed the Thai version, then another back-translated it into English. Finally, the meanings of the original version were compared to those of the translated version by the first translator. The original SOBI-P consists of 18 items whereas the SOBI-P Thai version consists of 16 items. Two items unclear in Thai culture were deleted from the original instrument<sup>29</sup>: “I feel like a piece of a jig-saw puzzle that doesn’t fit into the puzzle” and “I feel like a square

peg trying to fit into a round hole”. The SOBI-P is rated on 4 point Likert scale of 1 (strongly agree) to 4 (strongly disagree). Item examples are: “I often wonder if there is any place in the world that would suit me” and “I feel out of place in society”. The total score is obtained by summing the numerical value of the responses in all questions, with higher scores indicating a higher sense of belonging. The range of possible scores of SOBI-P is 16–64. The result of previous studies showed the Cronbach’s alpha ranged from 0.91–0.98.<sup>29,30</sup> The content validity of SOBI-P Thai version was validated by a panel of 5 experts. The CVI of SOBI-P Thai version for this study was 1.00 and Cronbach’s alpha coefficient was 0.91.

*Ways of Coping Questionnaire (WCQ) Thai Version*<sup>31</sup>: This measures problem-focused coping and emotion-focused. The WCQ was developed by Lazarus and Folkman<sup>32</sup> to measure thoughts and actions that individuals use to cope with the stressful encounters of everyday living. In Thailand, the back translation technique was used to translate WCQ into the Central Thai by Sithimongkol, Pongthavornkamol, and Gasemgitvattana.<sup>31</sup> The WCQ comprises 66 items (8 subscales) assessing 2 coping dimensions including problem-focused coping and emotion-focused coping. Problem-focused coping has 2 subscales including confrontive coping (6 items) and planful problem solving (6 items). Emotion-focused coping consists of 6 subscales including distancing (6 items), escape-avoidance (8 items), positive reappraisal (7 items), self-controlling (7 items), seeking social support (6 items), and accepting responsibility (4 items).<sup>31,32</sup> Although these 8 coping items were assessed within 50 items, there were 66 items in the WCQ. The additional 16 items were included to maintain the flow of the questionnaire. Therefore, the total score came from 50 items, 12 items from the problem-focused coping and 38 items from emotion-focused coping. Respondents were asked to give responses regarding coping strategy they used in dealing with caregiving burden. The WCQ was

rated on 4 point Likert scale ranging from 0 (does not apply/not used) to 3 (used a great deal). Examples of items include: “Just concentrated on what I had to do for the next step” (planful problem solving); and “I came out of the experience better than when I went in” (positive reappraisal). The total score is obtained by summing the numerical value of the responses in 50 questions in problem-focused coping and emotion-focused coping. The range of possible scores of problem-focused coping was 0-36 and emotion-focused coping was 0-114, with higher scores indicating more frequently used strategies. A previous study reported a Cronbach’s alpha of 0.89.<sup>31</sup> In this study a Cronbach’s alpha coefficient of 0.79 was found for the Thai WCQ. Cronbach’s alpha coefficient values of 0.69 and 0.74 were found for problem-focused coping and emotion-focused coping, respectively.

*The General Health Questionnaire-12 (GHQ-12) Thai version*<sup>33</sup> was used to measure the presence of mental problems associated with distress in family caregivers of PWMDD, asking respondents by asking about their experience of particular symptoms or behavior in the last 2-3 weeks. The GHQ-12, originally developed by Goldberg, has been widely used, and several studies in family caregivers of people with depression suggested it could be used to assess family caregivers’ psychological state.<sup>7,13</sup> The GHQ-12 was translated into Central Thai by Nilchaikovit et al. and administered to 100 people visiting a mobile primary health care unit. Results showed that the instrument was reliable with a Cronbach’s alpha coefficient of 0.84.<sup>33</sup> The scoring method for the GHQ-12 is the bi-modal method (0-0-1-1), of which the value for the first two answers is 0=positive and for the other two 1=negative. Examples of items are: “Been able to concentrate on whatever you are doing?” and “Lost much sleep over worry?” The possible scores of GHQ range from 0-12, with the score >2 indicating the presence of psychological distress. We found a Cronbach’s alpha coefficient of 0.86 in this study.

*General Information Questionnaire (GIQ):* This consisted of two parts to collect demographic data of family caregivers and PWMDD regarding personal information such as gender, age, relationship, and duration of caregiving or illness.

**Procedure:** A pilot study was conducted in interviews with 15 family caregivers of PWMDD. They were asked to give feedback regarding the questionnaire items that were difficult to understand or unclear, but no participants reported problems understanding the questions. Time spent on completing the questionnaires varied, and 40-60 minutes, there was no sign of fatigue during that time. Once participants had entered the full study, data collection was conducted in a quiet room in each setting. Structured interviews were again undertaken using the 6 questionnaires above, and lasted ~1 hour.

**Data analysis:** The significance level was set at an alpha value of .05. Data were analyzed using software product for service solution (SPSS version 17.0), preprocessor for LISREL (PRELIS 2.80, Student version) and linear structural relationship (LISREL 8.80, Student version). The assumptions of structural equation modeling (SEM) including normality of distribution, linearity of relationship, homoscedasticity, and multicollinearity were examined prior to data analysis. The results revealed that only the assumption of normality was violated. To deal with non-normality, an estimation method with less restrictive distributional assumptions, robustness maximum likelihood estimation, was used to estimate the strength of relationship and assess how well each measurement model and hypothesized model fit the empirical data.<sup>34</sup>

## Results

*Family caregivers:* The mean age was 47.09 years (SD=14.19). The majority were female (62.7%, n=28), educated to bachelor degree (36.3%, n=74), married (63.8%, n=130),

employed (68.6%, n=140), and had no history of physical illness (68.1%, n=139). Most were son or daughter (36.3%, n = 74) and had provided care to their family member for 6 months to ≤2 years (42.2%, n=86).

**PWMDD:** The mean age was 54.43 years (SD = 18.39). Most were female (74%, n=151); ~37% (n=75) had been diagnosed with MDD for 6 months to ≤2 years 6 months and 51% (n=104) had a history of physical illness.

Study variables are shown in Tables 1 and 2. Results showed the mean score of burden was

approximately one-fourth of the possible range. The mean score of sense of belonging was higher than three-fourths of the possible range. The mean score of emotion-focused coping was slightly lower than half of the possible range. The mean score of social support and problem-focused coping were nearly half of the possible range. The assessment of psychological distress resulted in a mean slightly >2, indicating the presence of psychological distress among family caregivers. Approximately 37% (n=76) of family caregivers reported experiences relating to psychological distress.

**Table 1** Descriptive Statistics of Study Variables (N=204)

Variables	Possible Range	Actual Range	Mean	SD
Burden	0-108	6-63	28.51	11.68
Social Support	0-140	21-114	61.17	20.68
Sense of Belonging	16-64	32-64	52.16	6.62
Problem-Focused Coping	0-36	6-29	16.71	4.66
Emotion-Focused Coping	0-114	23-89	48.51	9.80
Psychological Distress	0-12	0-10	2.41	2.84

**Table 2** Numbers and Percentages of Family Caregivers of People with MDD by Psychological Distress (N=204)

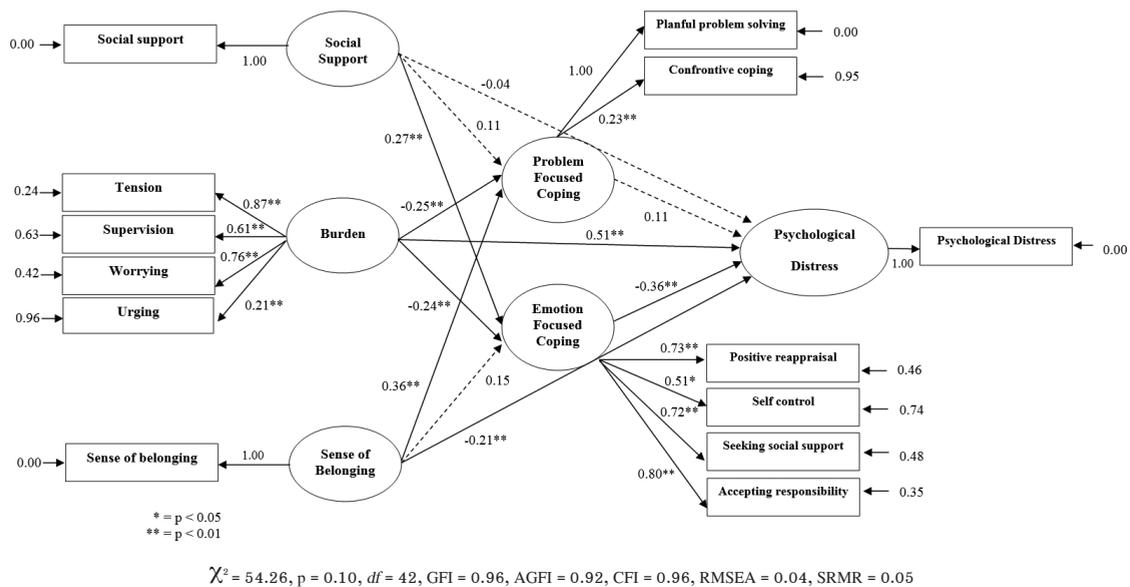
Psychological Distress	Family Caregivers	
	Number	Percentage
Normal level of psychological distress (GHQ = 0-2 score)	128	62.7
Presence of psychological distress (GHQ > 2 score)	76	37.3

**Measurement Model:** The three constructs in this study including burden, problem-focused coping and emotion-focused coping were assessed for their in the component measurement model using confirmatory factor analysis (CFA). The latter three constructs showed that burden, problem-focused coping and emotion-focused coping component measurement

model exhibited construct validity and fit the empirical data. However, standardized factor loadings of 1 primary indicator of burden (urging) and 2 primary indicators of emotion-focused coping (distancing and escape avoidance) were not statistically significant. Therefore, items analysis and semantic relatedness were performed in order to evaluate the appropriate secondary indicators for urging, distancing and escape avoidance.

Based on item analysis and semantic relatedness of urging, 3 items in urging were excluded. The CFA of the revision of urging in measurement model of burden was performed. Results revealed that standardized factor loading of urging was statistically significant, indicating that urging can represent the burden construct. Item analysis and semantic relatedness of distancing and escape avoidance were also considered. Two items in distancing and 3 items in escape avoidance were excluded. The CFA of the revision of distancing and escape avoidance were performed. Results showed that standardized factor loading of both distancing and escape avoidance were not statistically significant, indicating that distancing and escape avoidance were not appropriate to assess emotion-focused coping. Therefore, distancing and escape avoidance were excluded from measurement model of emotion-focused coping.

**Model testing:** The results revealed that the hypothesized model fit the empirical data ( $\chi^2 = 54.26, p = 0.10, df = 42, GFI = 0.96, AGFI = 0.92, CFI = 0.96, RMSEA = 0.04, SRMR = 0.05$ ). The model accounted for and explained 32% of variance in problem-focused coping, 27 % of variance in emotion-focused coping, and 64 % of variance in psychological distress. Burden had the strongest significant positive direct effect on psychological distress and also had a significant indirect effect on psychological distress through emotion-focused coping. Social support had a significant indirect effect on psychological distress through emotion-focused coping. Emotion-focused coping mediated the effect of burden on psychological distress and social support on psychological distress. Sense of belonging had a significant negative direct effect on psychological distress. The results of hypothesized model testing are provided in Figure 2 and Table 3



**Figure 2** The Modified Model of Factors Predicting Psychological Distress of Family Caregivers of People with MDD

**Table 3** Direct Effects, Indirect Effect, and Total Effect of Study Variables in the Final Model

Causal Variables	Affected Variables								
	Problem Focused Coping			Emotion Focused Coping			Psychological Distress		
	TE	IE	DE	TE	IE	DE	TE	IE	DE
Burden	-0.25**	-	-0.25**	-0.24**	-	-0.24**	0.57**	0.06*	0.51**
Social support	0.11	-	0.11	0.27**	-	0.27**	-0.13*	-0.09**	-0.04
Sense of belonging	0.36**	-	0.36**	0.15	-	0.15	-0.22**	-0.01	-0.21*
Problem focused coping	-	-	-	-	-	-	0.11	-	0.11
Emotion focused coping	-	-	-	-	-	-	-0.36**	-	-0.36**
Structural equation	R <sup>2</sup> = 0.32			R <sup>2</sup> = 0.27			R <sup>2</sup> = 0.64		

**Note:** \* =  $p < 0.05$ ; \*\* =  $p < 0.01$

TE = total effect; IE= indirect effect; DE = direct effect

## Discussion

The results partly supported the use of the Lazarus and Folkman's stress and coping theory as a conceptual framework of the study. Results of structural process of psychological distress of family caregivers of PWMDD can be explained by Lazarus and Folkman's stress and coping theory as follows:

Family caregivers with higher level of burden had a higher level of psychological distress. This finding was consistent with a number of studies on family caregivers of people with depression, which revealed a positive relation between burden and psychological distress.<sup>7,8</sup> Moreover results showed that burden had an indirect effect on psychological distress through emotion-focused coping only, indicating that family caregivers with higher level of burden used less emotion-focused coping, including positive reappraisal, self-control, seeking social support and accepting responsibility leading to higher level of psychological distress. There was no previous study that examined the indirect effect of burden on psychological distress through emotion-focused coping of family caregivers of PWMDD. However, our current finding was partially consistent with previous studies in caregivers of people with chronic

mental illness, such as caregivers of people with Alzheimer's disease, in that emotion-focused coping had a mediating effect between stress and psychological distress, that is depression and anxiety.<sup>35</sup> The indirect effect of burden on psychological distress found in this study may be associated with Thai culture. Culture may influence caregivers' meaning of caring for patients, thinking or acting in response to stress situation and the process of coping. In Thailand, family caregivers have to take responsibility for taking care of an ill family member. When caring for people with MDD, Thai family caregivers believed that caregiving involves acceptance, compassion and patience.<sup>36,37</sup> Therefore, they try to utilize more emotion-focused coping such as tolerance, positive thinking and help seeking to cope with a burden situation.<sup>36,37</sup> Furthermore, Thai family caregivers coped with burden by way of religious belief and used emotion-focused coping strategy to manage their perception of stress and burden.<sup>37</sup> Such practices or coping mechanisms may give family caregivers peace of mind and help them endure their burdens and so their psychological health may not really be much affected. As noted previously, family caregivers may choose their coping strategies on the basis of their cultural and religious background.

Family caregivers with a higher level of social support did not demonstrate a lower level of psychological distress. The lack of predictive power of social support on psychological distress in this study is noteworthy. The explanation may be related to the role of social support. Previous studies have documented that social support can be served as two functions including direct effect and buffering effect.<sup>38,39</sup> For the direct effect, social support directly enhances health irrespective of stress level.<sup>38</sup> For the buffering effect, social support provides its useful effects in the presence of stress by protecting a person from worse health effects such as stress.<sup>38</sup> Since this study found no significant contribution from social support toward psychological distress, it is possible that in the context of caring for PWMDD, social support serves as a buffering effect instead of direct effect. With the buffering effect the family caregivers experiencing burden or stress who received strong social support would be protected from developing psychological distress. Further study is recommended to investigate this buffering effect.

This study also found an indirect effect on psychological distress through emotion-focused coping only, indicating that family caregivers with higher social support and using emotion-focused coping in a burden situation had lower level of psychological distress. This may be due to the fact that in caring for a person with chronic mental illness like MDD, where the nature of illness is uncontrollable and unpredictable over time,<sup>2,40</sup> family caregivers may realize that controlling or changing situations would be non-beneficial. Additionally, 42% of caregivers (n=86) had taken care of the people with MDD for just 6 months to 2 years, thus they might not have sufficient experience to deal with some situations. The reception of strong social support might encourage the use of emotion-focused coping strategy in order to increase emotional endurance and adjustment and subsequently led to a lower level of psychological distress.

Family caregivers with higher level of sense of belonging had a lower level of psychological distress. This finding is consistent with Hagerty et al.<sup>21</sup> who posited that sense of belonging is a protective factor for a person to experience less psychological distress. Although, the relationship between sense of belonging and psychological distress in family caregivers of PWMDD had not been investigated before, a review of related literature supported the direct effect of sense of belonging on mental health problem such as depression.<sup>29,41</sup> It is noteworthy that sense of belonging is an important predictive factor of problem-focused coping, as family caregivers with higher level of sense of belonging demonstrated enhanced ability in the utilization of problem-focused coping strategy. High sense of belonging may boost the caregivers' confidence in using problem-focused coping to deal with burden situation. This result was not congruent with the Lazarus and Folkman's theory of stress and coping.<sup>12</sup> According to this theory, sense of belonging is categorized as internal coping resource. It is an influential factor in coping thus having effect on psychological health. The incongruence of this finding could be explained with Baumeister and Leary's description of sense of belonging as a powerful factor shaping human thought about self then directly affecting psychological health.<sup>42</sup> It can be implied that sense of belonging had direct effect on psychological health, with no need to work through both problem-focused and emotion-focused coping to affect psychological health.

### **Limitations**

Firstly generalizability of findings is limited because a convenience sample was used with participants from only two settings and this might not be a good representation of family caregivers of PWMDD. Next, a limitation is due to a cross-sectional correlational research design, in which the examination

of relationships was done at a specific time point or on a single occasional snapshot of a variable system. Preferably a longitudinal study should be undertaken, in which factors influential to psychological distress are observed over a period of time, and this would have added to the credibility of findings related to questions regarding change, processes and causation of variables.

### **Conclusion and Recommendations**

This study found that only emotion-focused coping mediated the effect of burden and social support on psychological distress. It is possible that coping with burden is like a process or mutual interplay of person and environment, constantly changing overtime. Therefore, future research should employ longitudinal studies as mentioned above. In addition, findings from this study reflect the idea that relieving burden, strengthening sense of belonging and social support and enhancing coping strategies may help lessen psychological distress in family caregivers of PWMDD. Therefore, experimental study should be conducted by promoting appropriate coping skill as well as adding social support and sense of belonging into the intervention and then assessing psychological distress as an outcome.

Significant information for psychiatric nurses and other mental health providers from this study is the common occurrence of psychological distress among family caregivers of PWMDD, as one-third of family caregivers were found to have psychological distress. They constitute a risk group that should receive close attention such as psychological distress screening or health assessment. Psychiatric nurses have a role in alleviating the psychological distress of family caregivers. Appropriate plans of care that involve relieving burden, strengthening sense of belonging and enhancing coping strategies should be developed, implemented and evaluated in future.

### **Acknowledgments**

Thanks go to the Commission on Higher Education and the Thailand Nursing and Midwifery Council for funding, and to the family caregivers who gave their time and effort for this study.

### **References**

1. Warren BJ. Mood disorders: management of moods and suicidal behavior. In: Boyd MA, editor. *Psychiatric nursing: contemporary practice*. Philadelphia: Lippincott Williams & Wilkins; 2008. p. 348-90.
2. Ahlstrom BH, Skarsater I, Danielson E. Living with major depression: experiences from families' perspectives. *Scand J Caring Sci*. 2009 23(2):309-16.
3. Ostman M, Hansson L. Appraisal of caregiving, burden and psychological distress in relatives of psychiatric inpatients. *Eur Psychiatry*. 2004 19(7):402-7.
4. Highet NJ, McNair BG, Davenport TA, Hickie IB. How much more can we lose?: carer and family perspectives on living with a person with depression. *Med J Aust*. 2004 181(7 Suppl):S6-9.
5. Moller-Leimkuhler AM. Burden of relatives and predictors of burden baseline results from the Munich 5-year-follow-up study on relatives of first hospitalized patients with schizophrenia or depression. *Eur Arch Psychiatry Clin Neurosci*. 2005 255(4):223-31.
6. van Wijngaarden B, Schene AH, Koeter MW. Family caregiving in depression impact on caregivers' daily life, distress, and help seeking. *J Affect Disord*. 2004 81(3):211-22.
7. Leinonen E, Korpiammal L, Pulkkinen LM, Pukuri T. The comparison of burden between caregiving spouses of depressive and demented patients. *Int J Geriatr Psychiatry*. 2001 16(4):387-93.
8. Sczufca M, Menezes PR, Almeida OP. Caregiver burden in an elderly population with depression in Sao Paulo, Brazil. *Soc Psychiatry Psychiatr Epidemiol*. 2002 37(9):416-22.
9. Lee TC, Yang YK, Chen PS, Hung NC, Lin SH, Chang FL, et al. Different dimensions of social support for the caregivers of patients with schizophrenia: main effect and stress-buffering models. *Psychiatry Clin Neurosci*. 2006 60(5):546-50.

10. Chang HY, Chiou CJ, Chen NS. Impact of mental health and caregiver burden on family caregivers' physical health. *Arch Gerontol Geriatr.* 2010 50(3):267-71.
11. Haley WE, Roth DL, Coletan MI, Ford GR, West CA, Collins RP, et al. Appraisal, coping, and social support as mediators of well-being in black and white family caregivers of patients with Alzheimer's disease. *J Consult Clin Psychol.* 1996 64(1):121-9.
12. Lazarus RS, Folkman S. *Stress, Appraisal and Coping.* New York: Springer; 1984.
13. Tamplin A, Goodyer IM, Herbert J. Family functioning and parent general health in families of adolescents with major depressive disorder. *J Affect Disord.* 1998 48(1): 1-13.
14. Chien WT, Chan SW, Morrissey J. The perceived burden among Chinese family caregivers of people with schizophrenia. *J Clin Nurs.* 2007 16(6):1151-61.
15. Gutierrez-Maldonado J, Caqueo-Urizar A, Kavanagh DJ. Burden of care and general health in families of patients with schizophrenia. *Soc Psychiatry Psychiatr Epidemiol.* 2005 40(11):899-904.
16. Hanzawa S, Tanaka G, Inadomi H, Urata M, Ohta Y. Burden and coping strategies in mothers of patients with schizophrenia in Japan. *Psychiatry Clin Neurosci.* 2008 62(3):256-63.
17. Chadda RK, Singh TB, Ganguly KK. Caregiver burden and coping: a prospective study of relationship between burden and coping in caregivers of patients with schizophrenia and bipolar affective disorder. *Soc Psychiatry Psychiatr Epidemiol.* 2007 42(11):923-30.
18. Kim HW, Greenberg JS, Seltzer MM, Krauss MW. The role of coping in maintaining the psychological well-being of mothers of adults with intellectual disability and mental illness. *J Intellect Disabil Res.* 2003 47(4-5):313-27.
19. Friedman-Yakoobian MS, de Mamani AW, Mueser KT. Predictors of distress and hope in relatives of individuals with schizophrenia. *Isr J Psychiatry Relat Sci.* 2009 46(2):130-40.
20. Rungreangkulkij S, Chafetz L, Chesla C, Gilliss C. Psychological morbidity of Thai families of a person with schizophrenia. *Int J Nurs Stud.* 2002 39(1):35-50.
21. Hagerty BM, Lynch-Sauer J, Patusky KL, Bouwsema M, Collier P. Sense of belonging: a vital mental health concept. *Arch Psychiatr Nurs.* 1992 6(3):172-7.
22. Veltman A, Cameron J, Stewart DE. The experience of providing care to relatives with chronic mental illness. *J Nerv Ment Dis.* 2002 190(2):108-14.
23. Huang C. Informal female caregivers of older adults with dementia in Taiwan. *Californian J Health Promot.* 2004 2(3):53-66.
24. Schene AH, van Wijngaarden, B., *The Involvement Evaluation Questionnaire.* Amsterdam: Univ. of Amsterdam; 1992.
25. Brislin RW. Field methods in cross-cultural research. In: Lonner WJ, Berry JW, editors. *The wording and translation of research instruments.* California: Sage; 1986. p. 137-64.
26. Goncalves-Pereira M, van Wijngaarden B, Xavier M, Papoila AL, Caldas-de-Almeida JM, Schene AH. Caregiving in severe mental illness: the psychometric properties of the Involvement Evaluation Questionnaire in Portugal. *Ann Gen Psychiatry.* 2012 11(8): 1-7.
27. Pipatananond P. *Caregiver burden predictive model: an empirical test among caregivers for the schizophrenic (dissertation).* Bangkok(TH): Mahidol Univ; 2002.
28. Schaefer C, Coyne JC, Lazarus RS. The health-related functions of social support. *J Behav Med.* 1981 4(4):381-406.
29. Sangon S. *Predictor of depression in Thai women (dissertation).* Michigan(MI): Univ. of Michigan; 2001.
30. Hagerty BM, Patusky K. Developing a measure of sense of belonging. *Nurs Res.* 1995 44(1):9-13.
31. Lambert VA, Lambert CE, Itano J, Inouye J, Kim S, Kuniviktikul W, et al. Cross-cultural comparison of workplace stressors, ways of coping and demographic characteristics as predictors of physical and mental health among hospital nurses in Japan, Thailand, South Korea and the USA (Hawaii). *Int J Nurs Stud.* 2004 41(6):671-84.
32. Lazarus RS, Folkman S. *Ways of coping (database on the Internet); 1985 (cited 12 Jan 2012).* Available from: <http://caps.ucsf.edu/uploads/tools/surveys/pdf/Ways%20of%20coping.pdf>
33. Nilchaikovit T, Sukying C, Silpakit C. Reliability and validity of the Thai version of General Health Questionnaire. *J Psychiatr Assoc Thailand.* 1996 41(1):2-17.
34. Schumacker RE, Lomax RG. *A beginner's guide to structural equation modeling.* 3rd ed. New Jersey: Lawrence Erlbaum Associates; 2010.

35. Cooper C, Katona C, Orrell M, Livingston G. Coping strategies, anxiety and depression in caregivers of people with Alzheimer's disease. *Int J Geriatr Psychiatry*. 2008 23(9):929-36.
36. Rungreangkulkij S, Chesla C. Smooth a heart with water: Thai mothers care for a child with schizophrenia. *Arch Psychiatr Nurs*. 2001 15(3):120-7.
37. Sethabouppha H, Kane C. Caring for the seriously mentally ill in Thailand: Buddhist family caregiving. *Arch Psychiatr Nurs*. 2005 19(2):44-57.
38. Cohen S, Syme SL. Issues in the study and application of social support. In: Cohen S, Syme SL, editors. *Social support and health*. San Francisco: Academic Press; 1985. p. 3-22.
39. Cohen S, Wills TA. Stress social support and buffering hypothesis. *Psychol Bull*. 1985 98(2):310-57.
40. Ahlstrom BH, Skarsater I, Danielson E. Major depression in a family: what happens and how to manage - a case study. *Issues in Mental Health Nursing*. 2007 28(7): 691-706.
41. Choearom C, Williams RA, Hagerty BM. The role of sense of belonging and social support on stress and depression in individuals with depression. *Arch Psychiatr Nurs*. 2005 19(1):18-29.
42. Baumeister RF, Leary MR. The need to belong: desire for interpersonal attachments as a fundamental human motivation. *Psychol Bull*. 1995 117(3):497-529.

## แบบจำลองเชิงสาเหตุของภาวะกดดันด้านจิตใจของญาติผู้ดูแลผู้ป่วยโรคซึมเศร้า

สุดารัตน์ เพียรชอบ, โสภณ แสงอ่อน, ยาใจ สิทธิมงคล, Reg Arthur Williams, พิศสมัย อรทัย

**บทคัดย่อ:** การศึกษานี้เป็นการวิจัยแบบภาคตัดขวางเพื่อศึกษาความสัมพันธ์เชิงโครงสร้างของภาวะในการดูแล แหล่งสนับสนุนทางสังคม ความรู้สึกเป็นส่วนหนึ่งของกลุ่มหรือสังคม การเผชิญความเครียดโดยมุ่งจัดการกับปัญหา การเผชิญความเครียดโดยมุ่งจัดการกับอารมณ์ ที่มีต่อภาวะกดดันด้านจิตใจของญาติผู้ดูแลผู้ป่วยโรคซึมเศร้า โดยกรอบแนวคิดในวิจัยครั้งนี้พัฒนาขึ้นมาจากงานวิจัยที่เกี่ยวข้องและกรอบทฤษฎีความเครียดและการเผชิญกับปัญหาของลาซารัสและโพล์คแมน ญาติผู้ดูแลผู้ป่วยโรคซึมเศร้า 204 คน ได้รับการสุ่มแบบหลายขั้นตอนและได้ตอบแบบสอบถามจำนวน 6 ชุด ได้แก่ ภาวะในการดูแล แหล่งสนับสนุนทางสังคม ความรู้สึกเป็นส่วนหนึ่งของกลุ่มหรือสังคม การเผชิญความเครียด ภาวะสุขภาพโดยทั่วไปและข้อมูลส่วนบุคคล ทดสอบโมเดลสมมุติฐานโดยใช้สถิติโมเดลสมการโครงสร้าง

ผลการศึกษาพบว่าโมเดลสมมุติฐานการวิจัยมีความสอดคล้องกับข้อมูลเชิงประจักษ์และสามารถอธิบายความแปรปรวนของภาวะกดดันด้านจิตใจของญาติผู้ดูแลผู้ป่วยซึมเศร้าได้ถึงหกสิบสี่เปอร์เซ็นต์ โดยพบว่า ภาวะในการดูแลสามารถทำนายการเกิดภาวะกดดันด้านจิตใจได้ดีที่สุดและมีอิทธิพลโดยอ้อมต่อภาวะกดดันด้านจิตใจโดยส่งผ่านตัวแปรการเผชิญความเครียดโดยมุ่งจัดการกับอารมณ์ แหล่งสนับสนุนทางสังคมมีอิทธิพลโดยอ้อมต่อภาวะกดดันด้านจิตใจโดยส่งผ่านการเผชิญความเครียดโดยมุ่งจัดการกับอารมณ์ และความรู้สึกเป็นส่วนหนึ่งของกลุ่มหรือสังคมมีอิทธิพลโดยตรงต่อภาวะกดดันด้านจิตใจ โมเดลเชิงโครงสร้างนี้ใช้เป็นแนวทางในการทำความเข้าใจการเกิดภาวะกดดันด้านจิตใจของญาติผู้ดูแลผู้ป่วยโรคซึมเศร้า บุคคลากรทางด้านสุขภาพจิตควรจะบรรเทาความรู้สึกเป็นภาระและส่งเสริมความรู้สึกเป็นส่วนหนึ่งของกลุ่มหรือสังคมและวิธีการเผชิญความเครียดเพื่อนำไปสู่การลดภาวะกดดันด้านจิตใจของญาติผู้ดูแลผู้ป่วยโรคซึมเศร้า

*Pacific Rim Int J Nurs Res 2014; 18(3) 173-186*

**คำสำคัญ:** ภาวะในการดูแล, แหล่งสนับสนุนทางสังคม, ความรู้สึกเป็นส่วนหนึ่งของกลุ่มหรือสังคมการเผชิญความเครียด, ภาวะกดดันด้านจิตใจ

สุดารัตน์ เพียรชอบ, PhD (Candidate), RN. คณะพยาบาลศาสตร์ มหาวิทยาลัยมหิดล E-mail: sudarat\_kae@yahoo.com  
ติดต่อที่: โสภณ แสงอ่อน\*, PhD, RN. ผู้ช่วยศาสตราจารย์, โรงเรียนพยาบาลรามธิบดี คณะแพทยศาสตร์โรงเรียนพยาบาลรามธิบดี มหาวิทยาลัยมหิดล E-mail: sopin\_mu@yahoo.com  
ยาใจ สิทธิมงคล, PhD, RN. รองศาสตราจารย์, คณะพยาบาลศาสตร์ มหาวิทยาลัยมหิดล  
Reg Arthur Williams, PhD, RN, BC, FAAN. Professor Emeritus. University of Michigan School of Nursing Ann Arbor, Michigan, United States  
พิศสมัย อรทัย, PhD, RN. ผู้ช่วยศาสตราจารย์, โรงเรียนพยาบาลรามธิบดี คณะแพทยศาสตร์โรงเรียนพยาบาลรามธิบดี มหาวิทยาลัยมหิดล