Original Article

JHSMR Journal of Health Science and Medical Research

Burden among Relatives of Individuals with Depression in Southern Thailand: A University Hospital-Based Cross-Sectional Survey

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Received 14 December 2022 • Revised 26 January 2023 • Accepted 22 March 2023 • Published online 27 April 2023

Abstract:

Objective: This study aimed to investigate the levels of burden, social support, and mental health among Thai relatives of individuals with depression, and to explore factors associations with the burden.

Material and Methods: From March to July 2022, a cross-sectional study surveyed Thai relatives of individuals with depression at Songklanagarind Hospital. The questionnaires inquired about 1) demographic data, 2) Zarit burden interview-Thai version, 3) Thai version General Health Questionnaire-28 (GHQ-28), and 4) Revised Thai Multidimensional Scale of Perceived Social Support (rMSPSS). The data were analyzed using the descriptive statistic method, and multiple logistic regression.

Results: There were 139 relatives of individuals with depression who participated in this study. The majority of them were female (69.1%) with a mean age of 49.8±12.6 years. According to the Thai GHQ-28, most participants (90.6%) had no probable psychiatric or psychological distress. Most of them (86.3%) had little or no burden. There were no participants who reported having a severe burden, only three participants (2.2%) had a moderate to severe burden. They had a high level of perceived social support in connections to the subgroups of family and friends. The factors associated with the mild and moderate burden of relatives were the status of the relationship, psychological distress, and perceived social support in the subgroup of family.

Conclusion: Most relatives of individuals with depression reported little or no burden, no psychological distress, and receiving a high level of social support. Status of relationship, psychological distress, and perceived social support were associated factors with the mild and moderate burden of relatives.

Keywords: associated factor, burden, depression, patient, relative

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J Health Sci Med Res 2023;41(5):e2023950
doi: 10.31584/jhsmr.2023950
www.jhsmr.org

Introduction

Major depressive disorder (MDD) is a chronic, recurring mental health problem throughout the world that can cause severe distress and dysfunction, and constitutes both economic and social burdens for families, communities, and societies[1]. During the treatment of MDD, the family also suffers from MDD. Therefore, mental health care providers should inform and support the family to go through several individual psychological recovery processes as soon as possible[2]. Because the family of individuals with MDD has many duties and responsibilities such as helping with daily living activities, responding to basic needs, earning a living to meet household expenses, and protecting the patient from potential self-harm and relapse[2–4]. These responsibilities and duties of the family, which could be long-term, reduce the available time for taking care of themselves, engagement in daily living activities, and participation in social activities, and they can cause psychological distress in themselves[5,6].

Family burden refers to all the difficulties and challenges experienced by the family as a consequence of someone's illness. Nowadays, many families are suffering from burdens worldwide, not only physical illness but mental illness-related burdens are also documented[7]. In 2012, the World Health Organization (WHO) reported that the prevalence of family burden, including both physical and mental disorders, was about 39.0%. The financial burden was highest in lower-income countries and lowest in higher-income countries[8]. The prior study the purposed reduction of social activities (44.0%) and leisure (53.0%) of the family with MDD were the most frequently reported sources of burden, whereas psychological burden was mainly due to worries for the future (61.0%), and a sense of loss (75.0%). The family burden is higher in relatives with a lower education level, and when social functioning and patients' symptomatology are more severe. Families who can rely on stronger support from social networks and mental health professionals have lower levels of family burden[9]. Therefore, providing supportive interventions for individuals with MDD and their families should be highlighted. Furthermore, a multidisciplinary approach is needed in this domain to prevent burnout and family burden[2].

Additionally, a prior study reported that Thai families of individuals with MDD from the central regions had a higher level of burden that had a positive relationship between a higher level of psychological distress and burden[10]. Therefore, mental health care providers should help families to strengthen their sense of belonging, using appropriate coping strategies to decrease psychological distress, relieve the burden, promote patience, acceptance, and compassion, and utilizing more emotion-focused coping such as positive thinking, tolerance, and being a help to seek or to cope with a burden situation[11,12]. Because appropriate coping skills, emotion-focused coping as well as assessing psychological distress, adding social support, and a sense of belonging to the intervention will affect the good outcome of psychological distress and burden[10].

In the psychiatric aspect, the burden of family is now well-documented in schizophrenia research, whereas very little information is available on mood disorders. In Thailand, there are limited data on the burden on the family of individuals with MDD, especially in the southern region. Only one study on this topic has been conducted in the past eight years (2014) in the central region[10]. Furthermore, several provinces in the southern region have a predominantly Muslim population; in contrast to other regions in Thailand where all provinces have majority Buddhist populations. It is known that there are many cultural differences between southern Thai and the central Thai people, and southern people have varied family structures, beliefs, and religions. Due to societal growth and the lack of up-to-date data, this study purposed to investigate the levels of family burden among key relatives of individuals with MDD, to explore the perceived receiving social support for key relatives, and to find out the association between family burden and related factors. Furthermore, it provides useful knowledge for establishing and developing effective psychosocial support frameworks via a variety of care-related processes for the family of individuals with MDD.

In our study, a key relative is defined as someone living with individuals with MDD in the same household, spending time with him/her and shouldering responsibilities of caring for him/her majority of the time and caring for him/her for a minimum duration of past one year[13].

Material and Methods

Study design and setting

From March to July 2022, this cross-sectional study was employed at the psychiatric outpatient clinic, Songklanagarind Hospital, Thailand, which is an 800-bed university hospital serving as a tertiary referral center in southern Thailand. The psychiatry department, includes a psychosocial support care team with multidisciplinary healthcare workers and a club, 'Sri Trang', in order to ensure effective and holistic care and continuity.

Data collection procedures

Initially, all key relatives who came to the psychiatric outpatient clinic with the individual with MDD on the appointment date were approached and invited to collaborate in this study by the researcher assistant. The researcher's assistant handed participants the information sheet including the rationale and time to complete the questionnaire. The participants had at least 15 minutes to consider whether to collaborate on the study. If they wished to collaborate on the study, the researcher assistant gave them the inform-consent sheet then they were asked to sign the inform-consent. During the administration of the questionnaire, the researcher invited participants to a private zone. The researcher observed participants' reactions and informed them that if they felt distressed, uneasy, or had no willingness to participate further, then the collaboration could be stopped at any time. If a key relative of individuals with MDD did not come to the psychiatric outpatient clinic with the individual with MDD on the appointment date, they were contacted by telephone. If they agreed to participate, the procedure of ensuring verbal consent and recording the necessary information was performed. If they did not agree to participate, the researcher would cease the contact.

Participants and sample size calculation

Concerning the sample size calculation, a prior study suggested that the prevalence of burden at all levels among relatives of individuals with MDD was found to be 84.7%[14]. The command 'n.for.survey' in the Epicalc package in R program (given delta=0.06 and alpha=0.05) was used to calculate the sample size required using the formula. Therefore, 139 participants were required for this study.

$$n = \frac{z^2_{\alpha/2}\, p(1-p)}{d^2}$$

Through the use of purposive sampling, the following people were included: key relatives who cared for individuals with MDD for a minimum duration of the past year, aged 20 years or above, were able to understand and used the Thai language well, agreed to collaborate, and were able to complete all of the self-administrated questionnaires were included. Those who had a history of physical disability, chronic severe medical conditions which need medical treatment (such as chronic kidney disease, cancer, cerebrovascular disease, myocardial infarction, heart failure, diabetes mellitus with complications), psychiatric disorder, chronic substance/alcohol use, and lack of mental ability to complete all of the self-administrated questionnaires, or decided to withdraw from the study were excluded in this study.

Measures

1. Demographic and personal information questionnaire for relatives consisted of areas related to age, gender,

marital status, religion, education, working status, income, underlying disease, the status of the relationship, family type, and duration of care. For individuals with MDD, personal information inquired around areas related to age, gender, marital status, religion, education, working status, income, and depressive profile.

2. Zarit burden interview (ZBI) Thai version to assess burden, the questionnaire consisted of 22 questions that evaluated the caregiver-patient relationship, psychological well-being, finances, the condition of the caregiver's health, and social life. The score of each question employed a 5-point rating scale. For questions 1-21 (for example: Do you feel your relative is dependent on you?), respondents indicated how much they endorsed each statement: 0 (never); 1 (rarely); 2 (sometimes); 3 (quite frequently); 4 (nearly always). Question 22 (overall, how much burden there is or how do you feel in caring for your relative?) respondents rated how overwhelmed they feel in the role of the caregiver: 0 (not at all); 1 (a little); 2 (moderately); 3 (quite a bit); 4 (extremely). The total score ranged from 0 to 88. The greater total score meant the greater burden perceived by caregivers: 0-20 (little or no burden); 21-40 (mild to moderate burden); 41-60 (moderate to severe burden); 61-88 (severe burden)[15]. This tool was developed by Zarit et al. and was translated into the Thai version by Silpakit et al. The questionnaire demonstrated internal consistency; Cronbach's alpha coefficient of 0.88[16]. The reliability of this instrument, in this study, was 0.86.

3. Thai version of the General Health Questionnaire-28 (Thai GHQ-28), was a self-administered screening instrument, sensitive to the presence of psychiatric disorders in individuals presenting in primary care settings and non-psychiatric settings or to screen for probable psychiatric morbidity or psychological distress[17]. It consisted of 28 questions which were divided into four groups psychological distress; somatic symptoms (questions 1-7); anxiety and insomnia (questions 8-14); social dysfunction (questions 15-21); severe depression (questions 22-28). The score of each question ranged from 0 to 1; 0 (not at all); 0 (no more than usual); 1 (rather more than usual); and 1 (much more than usual). The total score ranged from 0 to 28. A score of at least 6 was predictable for the participant's psychological distress, which was identified by each group of disorders. However, this tool was not a definitive diagnostic instrument and it was translated into the Thai version by Nilchaikovit et al. The questionnaire demonstrated a sensitivity of 85.3; a specificity of 89.7; and a Cronbach's alpha coefficient of 0.84-0.94[18]. The reliability of this instrument, during this present study, was 0.91.

4. The Revised Thai Multidimensional Scale of Perceived Social Support (rMSPSS), a self-rating questionnaire measured the extent to which an individual felt supported by significant others, family members, and friends. It consisted of 12 questions which were divided into 3 support groups including the significant other subgroups (questions 1, 2, 5, 10), family subgroup (questions 3, 4, 8, 11), and friend subgroup (questions 6, 7, 9, 12). The score of each question ranged from 1 to7; 1(less agree); and 7 (the most agree). The total score ranged from 12 to 84. The mean score of each subgroup ranged from 1 to 7; 1-2.9 (low support); 3-5 (moderate support); 5.1-7 (high support). The questionnaire had been translated into the Thai version by Wongpakaran et al. It demonstrated good internal consistency; and a Cronbach's alpha coefficient of 0.87[19]. The reliability of this instrument, in this present study, was 0.92.

Statistical methods

All data were analyzed to describe the relatives' and patients' demographic, depressive symptoms, and level of burden using the descriptive statistic method. The results were presented as proportions, frequency, mean, standard deviation (S.D.), median and interquartile range (IQR). The analysis of the association between independent variables and the level of burden, used multiple logistic regression and was performed by the R Foundation for Statistical Computing, version 4.1.2. All confidence intervals (CIs) were calculated at the 2-sided, 95% level.

Results

Demographic characteristics

Of all key relatives of individuals with MDD, eight relatives refused to participate in this study, from this, 139 relatives collaborated and completed the questionnaires. Of all of the participants, 93 relatives (66.9%) were interviewed by telephone. The majority of them were female (69.1%), Buddhist (85.6%), married (68.2%), and employed (75.5%) (Table 1). Their mean age was 49.8±12.6 years. The median (IQR) income was 22,350 (11800, 40905) bath/month (middle income). Most participants were parents (father/mother) (39.6%), spouses (husband/wife) (30.2%), sons/daughters (18.0%), and siblings (6.5%). Most of them (76.3%) had no duty to care for other members of their families. The family type was the nuclear family (consisting of two generations or less) (63.3%). For caring for the individuals with MDD, the relatives' median duration of care, and time spent for caring were 36 months (IQR=12.0-72.0), and 8 hours (IQR=2.0-18.5), respectively. According to Thai GHQ-28, most participants (90.6%) had no probable psychiatric morbidity or psychological distress (Table 1). Additionally, they perceived being supported by family members (82.0%), friends (54.7%), and significant others (33.1%) at a high level (Figure 1).

With regard to the individuals with MDD, the median age was 48 years (IQR=26-65). The median (IQR) income was 20,000 (10000, 37500) bath/month (middle income). The median age onset of depression was 38 years old (IQR=22-58), and the median duration of treatment was 36 months (IQR=18-72). Most of them had no history of self-harm behavior (68.3%) and hospitalization (85.6%). However, thirty-four individuals with MDD (24.5%) still had moderate to severe depression (PHQ-9 score of nine or greater) (Table 1).

Table 1 Relative and patient demographic information (N=139)

Demographic characteristics	Number (%)	
	Relative	Patient
Gender		
Male	40 (29.4)	39 (28.7)
Female	96 (70.6)	97 (71.3)
No answer	3	3
Religion		
Buddhism	119 (85.6)	120 (87.6)
Islam/Christianity	20 (14.4)	17 (12.4)
No answer	-	2
Marital status		
Single/divorced	44 (31.7)	67 (48.9)
Married	95 (68.3)	70 (51.1)
No answer	-	2
Education level		
Secondary school/below	20 (14.6)	29 (21.5)
High school/diploma	40 (29.2)	25 (18.5)
Bachelor's degree or above	77 (56.2)	81 (60.0)
No answer	2	4
Working status/occupation		
Employed	105 (75.5)	53 (38.4)
Unemployed/student/other	21 (90.6)	63 (45.7)
Retirement	13 (100)	22 (15.9)
No answer	-	1
Having physical illness		
No	80 (57.6)	77 (55.4)
Yes	59 (42.4)	62 (44.6)
Status of relationship		
Parent	55 (39.9)	
Spouse/partner	42 (30.4)	
Son/daughter	25 (18.1)	
Sibling/aunt/uncle	16 (11.6)	
No answer	1	
Care of other members		
No	106 (76.3)	
Yes	33 (23.7)	
Psychological distress by GHQ-28		
No (<6)	126 (90.6)	
Yes (≥6)	13 (9.4)	
Family type		
Nuclear family		88 (63.3)
Extended family		39 (28.1)
Live alone		12 (8.6)

Table 1 (continued)

Demographic characteristics	Number (%)	
	Relative	Patient
Age onset (years): median (IQR)		38 (22-58)
Treatment duration (months): median (IQR)		36 (18-72)
Having history of hospitalization		
No		119 (85.6)
Yes		17 (12.2)
Presence of self-harm/suicidal behavior		
Yes		43 (31.2)
No		95 (68.8)
No answer		1
PHQ-9		
<9		105 (75.5)
≥9		34 (24.5)

GHQ-28=General Health Questionnaire-28, IQR=interquartile range, PHQ-9=Patient Health Questionnaire-9

Level of burden among relatives

In regard to Zarit burden interview (ZBI) Thai version, the majority of participants (86.3%) reported little or no burden. There were no relatives of individuals with MDD who reported having severe burden, and only three participants (2.2%) reported moderate to severe burden (Figure 2).

The association between demographic characteristics, general health of relatives, perceived social support, and level of burden among relatives

Because there were no participants who had experienced severe burden, then an attempt to indicate the association between the factors and severe burden could not take place in this study. However, we tried to discover the factors that were associated with a mild and moderate burdens. Variables whose p-values from the univariate analysis were lower than 0.2 were included in the initial model for multivariable analysis (Table 2 and 3).

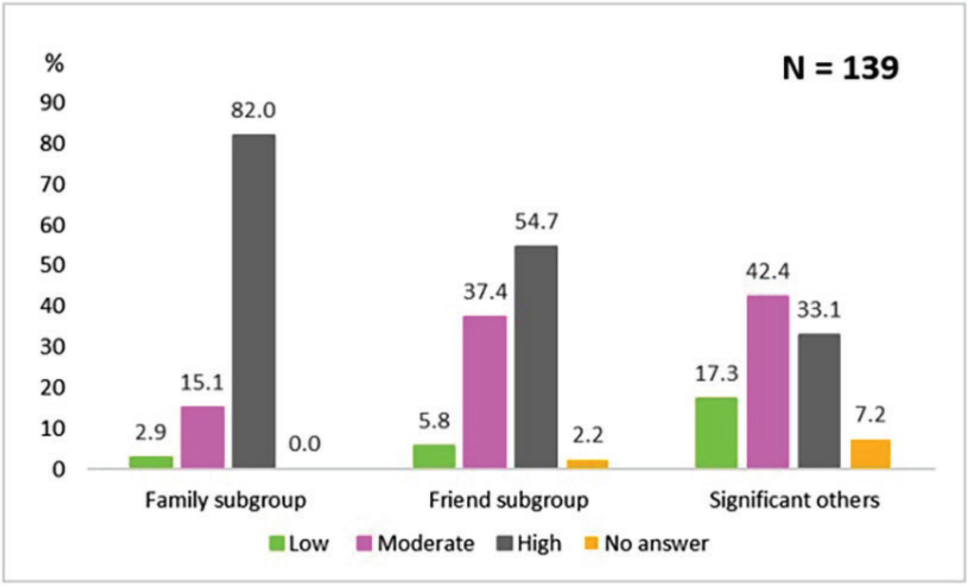

Figure 1 Perceived social support of relatives

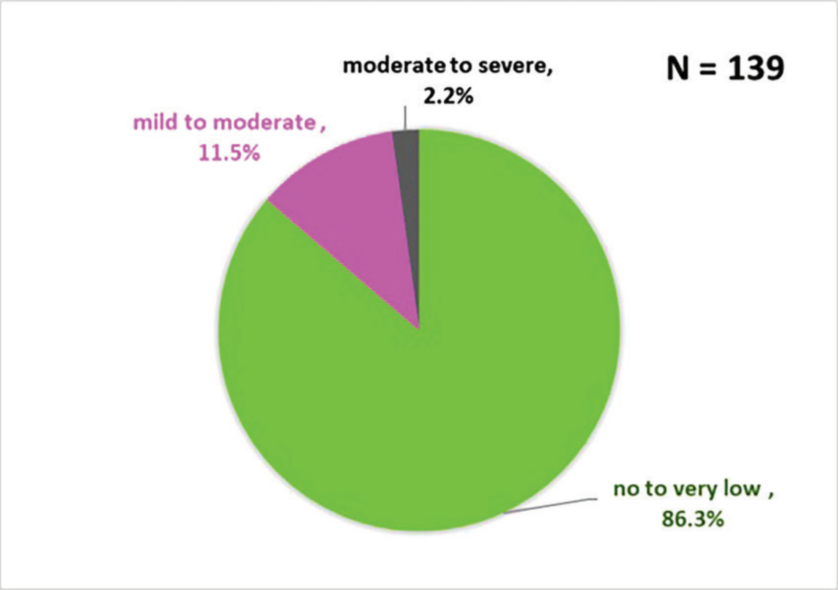

Figure 2 Burden of relatives

Table 2 The association between demographic characteristics, general health, perceived social support, and level of burden of relative (N=139)

Characteristics	Number (%) Level of burden No to low (n=120)	Number (%) Level of burden Mild to moderate (n=19)	Chi2 p-value
Age: mean (S.D.)	50.3 (12.4)	46.5 (14.0)	0.216[a]
Gender			0.094
Male	38 (32.5)	2 (10.5)	
Female	79 (67.5)	17 (89.5)	
No answer	3	-	
Religion			1[b]
Buddhism	102 (85.0)	17 (89.5)	
Islam/Christianity	18 (15.0)	2 (10.5)	
Marital Status			0.187
Single/divorced	35 (29.2)	9 (47.4)	
Married	85 (70.8)	10 (52.6)	
Education level			0.778
Secondary school/below	18 (15.3)	2 (10.5)	
High school/diploma	35 (29.7)	5 (26.3)	
Bachelor's degree or above	65 (55.1)	12 (63.2)	
No answer	2	-	
Working status/occupation			0.438[b]
Employed	88 (73.3)	17 (89.5)	
Unemployed/student/others	20 (16.7)	1 (5.3)	
Retirement	12 (10.0)	1 (5.3)	
Income: median (IQR)	22,350 (11,400-40,000)	25,000 (13,500-41,250)	0.795[c]

Table 2 (continued)

Characteristics	Number (%) Level of burden		Chi^2 p-value
	No to low (n=120)	Mild to moderate (n=19)	
Having physical illness			0.224
No	72 (60.0)	8 (42.1)	
Yes	48 (40.0)	11 (57.9)	
Family type			0.865
Nuclear family	77 (64.2)	11 (57.9)	
Extended family	33 (27.5)	6 (31.6)	
Live alone	10 (8.3)	2 (10.5)	
Status of relationship			0.040
Parent/son/daughter/sibling	73 (60.8)	16 (88.9)	
Partner and others	47 (39.2)	2 (11.1)	
No answer	-	1	
Duration of care (months), Median (IQR)	36 (16.5-72)	24 (12-60)	0.573^c
Period of care per day (hours), Median (IQR)	8 (2-24)	5.5 (3-12)	0.271^c
Care of other members			0.077^b
No	95 (79.2)	11 (57.9)	
Yes	25 (20.8)	8 (42.1)	
Psychological distress by GHQ-28			<0.001^b
No	115 (95.8)	11 (57.9)	
Yes	5 (4.2)	8 (42.1)	
Perceived social support by rMSPSS:			
Significant others			0.812
Low to moderate support	73 (65.2)	10 (58.8)	
High support	39 (34.8)	7 (41.2)	
Family subgroup			0.001^b
Low to moderate support	16 (13.3)	9 (47.4)	
High support	104 (86.7)	10 (52.6)	
Friend subgroup			0.822
Low to moderate support	53 (44.9)	7 (38.9)	
High support	65 (55.1)	11 (61.1)	

[a]Student's t test; [b] Fisher's exact test; [c] Mann-Whitney U-test

GHQ-28=General Health Questionnaire-28, IQR=interquartile range

Table 3 The association between demographic characteristics, depressive profile of patient, and level of burden of relative (N=139)

Characteristics	**Number (%) Level of burden**		**Chi^{2} p-value**
	No to low (n=120)	**Mild to moderate (n=19)**	
Age			
Median (IQR)	48 (25-65)	41 (28-65)	0.589[c]
Gender			1
Male	34 (29.1)	5 (26.3)	
Female	83 (70.9)	14 (73.7)	
No answer	3	-	
Marital status			0.55
Single/divorced	56 (47.5)	11 (57.9)	
Married	62 (52.5)	8 (42.1)	
No answer	2	-	
Education level			0.885[a]
Secondary school/ below	24 (20.7)	5 (26.3)	
High school/diploma	22 (19.0)	3 (15.8)	
Bachelor's degree or above	70 (60.3)	11 (57.9)	
No answer	4	-	
Working status/occupation			0.778
Employed	47 (39.5)	6 (31.6)	
Retirement	19 (16.0)	3 (15.8)	
Unemployed/student/other	53 (44.5)	10 (52.6)	
No answer	1	-	
Income			
Median (IQR)	20,000 (10,00-40,000)	13,000 (2,000-15,000)	0.025[b]
Having physical illness			0.611
No	68 (56.7)	9 (47.4)	
Yes	52 (43.3)	10 (52.6)	
Age onset			
Median (IQR)	39 (22-58)	32 (22-60)	0.704[b]
Treatment duration			
Median (IQR)	36 (18-81)	24 (24-60)	0.493[b]
Having history of hospitalization			0.466[a]
No	16 (13.7)	1 (5.3)	
Yes	101 (86.3)	18 (94.7)	
No answer	3	-	
Presence of self-harm or suicidal behavior			0.169
Yes	34 (28.6)	9 (47.4)	
No	85 (71.4)	10 (52.6)	
No answer	1	-	
PHQ-9			0.020[a]
<9	95 (79.2)	10 (52.6)	
≥9	25 (20.8)	9 (47.4)	

[a] Fisher's exact test, [b] Mann-Whitney U-test, IQR=interquartile range

Table 4 Factors related to mild/moderate burden

Factors	Crude OR (95% CI)	Adjusted OR (95% CI)	p-value LR-test
Status of relationship			0.029
Second/third/partner	Reference	Reference	
First	4.89 (1.07, 22.28)	4.93 (0.96, 25.3)	
Psychological distress by GHQ-28			0.003
<6	Reference	Reference	
≥6	14.13 (3.83, 52.05)	8.91 (2.16, 36.72)	
Perceived Social Support by rMSPSS: Family subgroup			0.037
Low to moderate support	Reference	Reference	
High support	0.2 (0.07, 0.58)	0.25 (0.07,0.89)	

OR=odds ratio, CI=confidence interval, GHQ-28=General Health Questionnaire-28

The factors associated with mild and moderate burden were the status of the relationship, probable psychiatric morbidity or psychological distress, and perceived social support in connection to the family subscale. The participants who were in the parent or sibling group had a higher rate of a mild and moderate burden than those in the spouse/partner or other groups: the adjusted odds ratio (AOR) was 4.93, and a 95% CI at 0.96 to 25.3. The same was authentic when correlating them with those whose psychological distress was present; AOR (95% CI) was 8.91 (2.16, 36.72). Moreover, the results suggested that a high level of perceived support from family played the role as a protective factor; AOR (95% CI) was 0.25 (0.07, 0.89) (Table 4).

Discussion

This is the first study from Southern Thailand aiming to evaluate any burden among relatives of individuals with MDD including the associated factors of burden. The prevalence of burden of relatives discovered was that there was no severe burden. The majority reported little or no burden. Additionally, most of them reported no probable psychiatric morbidity or psychological distress, and that they perceived receiving a high level of social support from significant others, family members, and friends. Furthermore, the associated factors related to mild and moderate burden were the status of a relationship, probable psychiatric morbidity or psychological distress, and perceived social support from family members. These findings are different from those of prior reports using ZBI from India that found that the prevalence of family burden was high[20]. This also differed from a prior study among Thai relatives of individuals with MDD from the central regions of Thailand; in that, the reported level of burden was high[10]. A potential explanation for these discrepancies may be due to different characteristics of the population; such as age group, gender, socioeconomic status, ethnicity, type of family, the status of a relationship, and the severity of patients' depression[21-23]. A prior study purposed that the burden of key relatives was significantly higher in employed relatives, female spouses, and spouse caretakers married within the last year as compared to caretakers other than wives, those unemployed, and those married for more than one year[20]. Even though, in this study, most participants were female, employed, parents, siblings, and spouses, they took care of individuals with MDD for 58.0 months, and spent time caring for 10.3 hours per day, still they reported little or no burden. A potential explanation for these discrepancies may be due to most families being of the nuclear type. This gave them a high sense of belonging to the individuals with MDD and they had no role in taking care of other members in the family. Therefore, the feeling of burden among relatives is low[10]. However, from the results of this study, it was found that the participants who were in the parent or sibling group had a higher rate of a mild or moderate burden than those in the spouse/partner or other groups: the adjusted odds ratio was 4.93. Therefore, the medical team should pay close attention to care for these groups.

In addition, this study found that most of the participants had no psychiatric mobility or psychological distress. This reflects that the relatives of individuals with MDD may have had good problem-solving skills and could manage stress well[10]. However, the other potential reason may be due to the individuals with MDD, in our study, having a low severity of depression, having a low rate of hospitalization and less self-harm behavior as well as having few residual symptoms of depression. Therefore, these do not make relatives interpret taking care of them as a burden. In addition, a prior study reported that the burden of the family was higher in relatives of patients with symptomatology, and impaired social functioning that was more severe[9], and had a longer duration of depressive disorder[20]. Moreover, a recent study at our Department of Psychiatry, identified that our patients with MDD reported good knowledge and a positive attitude toward depression. Additionally, they exhibited good medication adherence, a low level of stigma, and a high level of social support[24]. Therefore, educating individuals with MDD to have the ability to take care of themselves, without poor medication adherence, and with having the ability to manage or cope with their stress, may reduce the burden on their relatives[25]. In regards to social support to relatives, even though most of the families were nuclear families, they perceived a high level of social support in all domains. This may be due to the social nature or character of Southern Thailand to love comrades and help each other which may be different from other regions of Thailand[26,27]. This allows the relatives of individuals with MDD to receive support, resulting in lower relative burden rates. Additionally, the Department of Mental Health of Thailand and our Department of Psychiatry endeavors to promote peoples' knowledge of depression and a positive attitude toward living with individuals with MDD. Furthermore, it also ensures that patients are provided with a multidisciplinary support healthcare team. Various social networks have been created to allow individuals with MDD and their relatives to access crisis services more easily and to connect with the mental healthcare team promptly. Therefore, families who can rely on stronger support from mental health professionals and social networks have lower levels of family burden[9]. Furthermore, a multidisciplinary approach is essential for preventing burnout or the burden on the relatives[2].

However, in this study, we found no significant difference between religious factors and the levels of burden among relatives with MDD. A potential explanation for this result may be that there was a small sample size, or that all religions in southern Thailand have been merged under the main overall culture in southern Thailand. This is due to Thai religious culture being closely defined by the country's spiritual diversity, and a highly malleable and expandable system ensuring cooperation with new cultural elements whilst not erasing or overwhelming pre-existing local and indigenous forms[27].

Finally, most prior studies of burden among relatives have focused on individuals with psychosis. Few studies on the family burden of individuals with MDD have been identified. Therefore, the knowledge gained from this study is of great benefit in preventing burdens and promoting quality of life for relatives of individuals with MDD[25].

Strengths and limitations

To our knowledge, this was the only study, on this topic, conducted in southern Thailand during the past decade. However, this study was quantitative, and its sample size was prohibited to only relatives of MDD outpatients in lower Southern Thailand. Most participants were female in gender, had high educational levels, were employed, and had a moderate income. Hence, these results might not demonstrate the predicament or condition of all relatives of individuals with MDD of all genders, educational levels, economic statuses, or the whole country in a proportionate manner. Additionally, all participants were relatives of MDD outpatients who came to follow-ups regularly, and it did not include MDD inpatients. Therefore, it might not cover relatives of individuals with MDD who did not regularly attend follow-up appointments, and who may also have poor medication adherence or a higher severity of MDD. However, this study attempted to collect data from all relatives of individuals with MDD and a review of scheduled appointments found that only eight patients missed their appointments and their relatives refused to collaborate with the study, which was considered low missing. Additionally, some participants were interviewed by telephone, and this could lead to biased information. Even though most participants had low or no burden, we tried to search for the relationship between factors and the presence of mild and moderate burden. These findings may be novel knowledge that constitutes valuable information for preventing burden, and the promotion of quality of life among relatives of individuals with MDD in the Southern region. However, a more in-depth study is required on this subject. Henceforth, future studies should include a larger number of relatives of MDD including inpatients and outpatients with gender, age group, educational level, and economic status differences from other hospitals in Thailand; in other words, a multi-center study that aims to identify this research topic should be employed. Moreover, such research should operate an in-depth methodology that is adept at analyzing specific factors or a more qualitative approach.

Conclusion

Most Thai relatives of individuals with depression reported little or no burden, no psychological distress, and that they were receiving a high level of social support. Status of relationship, psychological distress, and perceived social support were associated factors with relatives reporting mild and moderate levels of burden. Therefore, early psychosocial intervention especially in the vulnerable relatives of individuals with depression should be highlighted.

Acknowledgement

The authors would like to acknowledge the participants for their willingness to provide information. We would like to also acknowledge Associate Professor Hutcha Sriplung, and the research assistants; Nisan Werachattawan and Kreuwan Jongborwanwiwat, for their support. The English of this article was proofread/edited by the Office of International Affairs, Faculty of Medicine, Prince of Songkla University.

Conflict of interest

No conflicts of interest are declared.

Funding sources

This study was fully supported by the Faculty of Medicine, Prince of Songkla University (REC. 64-594-3-4). The funders played no role in the study design, data collection, and analysis, decision to publish, or preparation of the manuscript.

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