Original Article

An Exploratory Research on Suicide Attempts with 36 Chronic Patients in Lamphun, Thailand: A Caregiver's Perspective toward Causes of Attempted Suicide

Mahathamnuchock S, MEd[1], Noosorn N, PhD[1], Matanasarawoot R, MD[2]

[1] Faculty of Public Health, Naresuan University, Phitsanulok, Thailand

[2] Lamphun Hospital, Lamphun, Thailand

Objective: To analyze the caregiver's perceived themes related to causes of attempted suicide among diabetic and hypertensive patients in semi-urban and rural districts, Lamphun Province, Thailand.

Materials and Methods: Interviews were conducted in 36 participants, aged 20 through 59 years, who had primary responsibility for the care of patients with diabetes mellitus (DM) and hypertension (HT) who had attempted suicide during their lifetimes. The demographic characteristics were compared between semi-urban district and rural districts analyzed by number and percentage. The data of perceived themes related to causes of attempted suicide were collected by in-depth interviews among 12 caregivers who provided written informed consent. The data were analyzed by the used of thematic analysis.

Results: The findings of the present study showed that there were three perceived themes for attempted suicide. The most important theme clearly indicated a conflict and arguments, which presented more often in semi-urban district than in rural district. The second theme was physical illness, which presented more often in a rural district than in semi-urban district. The last theme was an escape from failure. The main co-factors related to the causes behind attempted suicide were poor family relation, the presence of co-morbidity, and the complication in chronic disease.

Conclusion: These emerged themes need stakeholders to concern and meet the need of suicide prevention among patients in both of the semi-urban and rural districts.

Keywords: Attempted suicide, Chronic disease, Diabetes milletus, Hypertension, Caregiver

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Suicide attempts are a major public health concern. The World Health Organization reported that suicide attempts were 10 to 40 times the number of completed suicides each year. An estimated 9 to 36 million people attempted suicide, which may be underestimated[1]. Significantly, a prior suicide attempt is the single most important risk factor for suicide in the general population[2,3]. There is a 100% chance that a suicide attempt would result in another attempt at self-harm. Approximately 10% of all attempted suicides result in a completed suicide[4]. The suicide attempt rate trend increased significantly. Between 2015 and 2017, the rate was 16.00, 26.35, and 64.55, respectively[5]. The rate was highest in the age group of 25 to 59 years old. This group consists of working people and represent 72.6% of the suicide attempts. The rate indicated that there are more female attempts suicide (59.8%) than male (40.2%)[6].

The causes behind suicide attempts are various and complex[7]. Chronic physical conditions are risk factors in suicide attempts, such as cardiovascular disease and diabetes mellitus (DM)[8-10]. The effects of a suicide attempt were significant factors for the decrease in the well-being of the family[11]. A previous study indicated that the individuals with previous suicidal behavior were more likely to experience stigma from non-mental health providers

Correspondence to:

Mahathamnuchock S.

Candidate Dr.P.H. student, Faculty of Public Health, Naresuan University, 99 Moo 9, Phitsanulok 65000, Thailand.

Phone: +66-55-967444, **Fax**: +66-55-967333

Email: Mahathamnuchock@gmail.com

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and social network members than from mental health providers[12]. In turn, the real causes behind the attempted suicide need to be considered by researchers to minimize the stigmatization of the attempted suicide patients. However, there were very few qualitative studies conducted on the perception of the DM and hypertensive (HT) patients' caregivers in Lamphun, Thailand. Therefore, the caregiver's perceived themes related to the root causes of attempted suicide among DM and HT patients need to be investigated, and can be used to develop the effective attempting suicide prevention program.

Materials and Methods

Qualitative approach and research paradigm

The present exploratory research was determined on interpretative paradigm, which carried out to understand the caregiver's perceived causes in depth of suicide attempts among DM and HT patients in semi-urban and rural districts, Lamphun Province, Thailand. The authors used an interpretative approach (qualitative in nature) for the investigation to connect methods such as in-depth interview and the literature reviews of relevant documents[13].

The case studies were recruited from three districts by purposive selected, then had divided into two groups, (i) semi-urban district (Mueang Lamphun District), and (ii) rural districts (Ban Hong, and Lee District). For each district, stratified sampling was used to select the primary care unit (PCU). Finally, 22 PCUs were selected in the present study. A sample size of the caregivers was determined based on the finite population proportion formula, based on attempted suicide DM and HT patient population between October 2015 and December 2018 (n=40). The researchers used the criteria sampling to select 36 representative caregivers of attempted suicide DM and HT patients in the present study.

The present research was approved by the Naresuan University's Human Ethics Committee, approval number 307/2019.

Participants

The current study consisted of 36 caregivers, which were spouse, parents, adult children, and sibling. Eighteen participants were recruited from the semi-urban district, and 18 were recruited from the rural districts. To select suitable participant, the researchers made the first selection of outpatients with DM and HT who met the following criteria, (i) aged 35 to 85 years old, (ii) good control of blood sugar level based on review medical records and good control of their blood pressure in two last times in 2018 (Thailand Ministry of Public Health, 2018), (iii) had attempt suicide during their lifetimes, (iv) understood the purpose of the study. The exclusion criteria were a history of psychiatric disorders and requesting to withdraw from the research. Then, the authors selected the caregivers who met the following criteria (i) adults between 20 to 59 years old, (ii) responsible for the care of patients with DM and HT who had attempted suicide during their lifetimes, (iii) minimally independent of activity daily living (can be a caretaker), (iv) understood the purpose of the study and provided written informed consent. Exclusion criterion was requesting to withdraw from the research.

The current study used the theory of saturation, thus the interviews continued until no new themes emerged[14]. With such homogeneous groups, the saturation often occurs around 12 participants[15], to select the caregivers for in-depth interview method (interviewees). Finally, the data were drawn from the 12 participants that agreed to the in-depth interview method, of which, five of them were from the rural districts and seven from semi-urban districts of Lamphun Province.

Instruments

The instruments used for the current study were questionnaires. The first questionnaire comprised of two parts, (i) the demographic characteristic of caregivers, which included eight items, and (ii) the demographic characteristic of the patients who attempted suicide, which combined seven items. The second questionnaire was a semi-structure questionnaire for in-depth interview to investigate the caregiver's perceived themes related to causes of the attempted suicide among DM and HT patients.

Data collection

Before the data collections, the authors established a rapport with the participants to make them feel more comfortable. The authors started the interview with informant topic such as asking questions about their routine life to ensure relaxation, after that the questionnaires were used.

The information about the demographic characteristics of the caregivers and the attempted suicide patients were collected by face-to-face interview at locations chosen by the interviewees to minimize distractions and disruptions while interviewing.

The information about the possible causes behind

the attempted suicide among DM and HT patients were collected by face-to-face in-depth interview at locations chosen by the interviewees to minimize distractions and disruptions while interviewing. The duration of the interview and in-depth interviews was 20 to 45 minutes. The interview and in-depth interviews were digitally audio-recorded, then, the data were transcribed by one author.

Data analysis

The demographic characteristics data were analyzed using IBM SPSS Statistics for Windows, version 20[16]. Descriptive statistics were used for demographic characteristic summarized and presented as the number and percentage.

The authors used six phases to manually conduct a thematic analysis to group the caregiver's perceived themes related to the causes of attempted suicide among DM and HT patients[17]. Phase one, familiarizing yourself with the data, reading, and re-reading the data carefully. Phase two, generating initial codes across the entire data set. Phase three, searching for themes and collating codes into potential themes. Phase four, reviewing potential themes and checking if the potential themes identified in the third phase told a convincing story, and if necessary, refining, splitting, combining, or discarding some themes. Phase five, defining and naming themes, refined the specifics of each theme and the overall story the analysis told. Phase six, producing the report, weaving together the overall story and illustrative quotations from the data, creating links with existing literature. All phases were performed by the authors between August and September 2019. The data triangulation technique was used to enhance trustworthiness and credibility of the data analysis.

Results

The results of the current study showed in numerical form, in a table, and in text form 1) the sociodemographic of the caregivers, 2) the sociodemographic of the attempted suicide patients, and 3) the themes related to perceived causes of attempted suicide. Each theme related to perceived causes of attempted suicide was illustrated with supporting quotations from the interviews. The thematic analysis resulted in the following themes, conflict and relation breakdown, physical illness, and suicide attempt as an escape from failure.

Sociodemographic of the caregivers

More than half of the participants were female (58.33%). The mean ± standard deviation (SD) age was 49.67±10.98) years. Most caregiver education was elementary education (44.40%). Over half of them were married (66.70%). The mean family members were 3.83±1.57 person. The mean number of patients under caregiver was 1.36±0.59. Most of them had no co-morbidity (69.40%) (Table 1).

Sociodemographic of the attempted suicide patients

The demographic profile of the attempted suicide patients showed that over half of them were HT patients (63.89%). Most of them were between 40 and 65 years (63.90%).

Two-fifth of patients finished elementary education (41.70%). Over half of them were married (69.40%). Around half of them were employees (55.60%), never drank (58.30%), and reported family history of suicide (55.60%) (Table 2).

The themes related to perceived causes of suicide attempted

Most themes related to perceived causes of attempted suicide were conflict and arguments (63.89%). Whereas, one-fourth were physical illness (25.00%), and as an escape from failure (11.11%). The themes were similar between the semi-urban and rural districts (Table 3).

Thematic coding identified themes related to perceived causes of attempted suicide as follows:

Conflict and arguments: In both groups of semi-urban and rural, the most important theme was conflict and arguments. Thematic coding identified numerous coinciding instances of relationship concerns, arguments with spouse or partner or others. Examples of how these instances were reported included:

"Once, my parents had an argument.... My dad intended to commit suicide. Whereas my mom had let herself grieve for a while... she took 10 sleeping pills." (Daughter, age 47)

"We had an argument, I had gone out, but my wife stayed in our home... she took some of the bathroom cleaning liquid." (Husband, age 56)

The people interviewed revealed that arguments between young children or mother-in-law with daughter-in-law. For examples:

"My younger children had an argument with his older brother, may be related to money..." (Parents, age 60)

"My mom and my wife had an argument. For a while my mom was going to hang by a rope." (Sun, age 44)

Physical illness: In the current study, the second

Table 1. Distribution of the caregivers, by sex, age, education, marital status, employment status, family members, number of under caregiver, and co-morbidity in semi-urban district and rural district of Lamphun Province

Variable	Semi-urban			Rural			Total (n=36) n (%)
	Male; n	Female; n	Total; %	Male; n	Female; n	Total; %	
Sex	6	12	100	9	9	100	36 (100)
Age (years)							
20 to 29	0	0	0.00	1	2	16.70	3 (8.30)
30 to 39	0	1	5.60	1	1	11.10	3 (8.30)
40 to 49	1	2	16.70	3	2	27.80	8 (22.20)
50 to 59	5	9	77.80	4	4	44.40	22 (61.10)
Education							
Elementary education	2	8	55.60	3	3	33.30	16 (44.40)
Secondary education	3	1	22.20	5	4	50.00	13 (36.10)
Diploma	1	1	11.10	0	1	5.60	3 (8.30)
Bachelor's degree	0	2	11.10	1	0	5.60	3 (8.30)
Upper Bachler's degree	0	0	0.00	0	1	5.60	1 (8.30)
Marital status							
Single	2	1	16.70	2	0	11.10	5 (13.90)
Married	3	7	55.60	6	8	77.80	24 (66.70)
Divorced/separated/widowed	1	4	27.80	1	1	11.10	7 (19.40)
Employment status							
Employed	6	12	100	9	7	88.90	34 (94.40)
Unemployed	0	0	0.00	0	2	11.10	2 (5.60)
Family members							
1 to 2	2	5	38.90	1	2	16.76	10 (27.80)
3 to 4	3	4	38.90	6	2	44.40	15 (41.70)
5 to 6	1	1	11.10	2	5	38.90	9 (25.00)
7 to 8	0	2	11.10	0	0	0.00	2 (5.60)
Number of under caregiver							
1	6	4	55.60	7	3	55.60	20 (55.60)
2	0	8	44.40	2	5	38.90	15 (41.70)
3	0	0	0.00	0	1	5.60	1 (2.80)
Co-morbidity							
No	3	7	55.63	8	7	83.30	15 (69.40)
Yes	3	5	44.40	1	2	16.70	11 (30.60)

important theme was physical illness in both semi-urban and rural district. Interviewees indicated that physical illness were leading causes because of continued treatment, change of role, or change in independent living condition. Examples of how these instances were reported included:

"He complained that he had not recovered..., need to treat and take drugs forever." (Daughter, age 58)

"He works for a long time, the presence of the disease changed his role and independent living." (Wife, age 53)

"She was aging and had an illness with diabetes mellitus and hypertension… the decrease of her independent living… made her to be a burden." (Sibling, age 59)

Suicide attempt as an escape from failure: The causes behind the attempted suicide as an escape from failure are things such as money failure or debt. Approximately 11.11% of both semi-urban and rural attempted suicide cases are from perceived failures. Examples of how these instances were reported included:

Table 2. Distribution of the attempted suicide, by diseases, age, education, employment status, marital status, drinking (alcohol), and family history of suicide in semi-urban district and rural district of Lamphun Province

Variable	Semi-urban			Rural			Total (n=36)
	Male; n	Female; n	Total; %	Male; n	Female; n	Total; %	n (%)
Diseases							
Diabetes mellitus	0	7	38.89	2	4	33.33	13 (36.11)
Hypertension	8	3	61.11	6	6	66.67	23 (63.89)
Age (years)							
40 to 65	7	7	77.78	3	6	50.00	23 (63.90)
>65	1	3	22.22	5	4	50.00	13 (36.10)
Education							
Have no formal education	2	2	22.22	1	3	22.22	8 (22.20)
Elementary education	3	3	33.33	3	6	50.00	15 (41.70)
Secondary education	3	2	27.78	3	1	22.22	9 (25.00)
Diploma	0	1	5.56	0	0	0.00	1 (2.80)
Bachelor's degree	0	2	11.11	1	0	5.56	3 (8.30)
Marital status							
Single	1	1	11.11	2	0	11.11	4 (11.10)
Married	6	7	72.22	4	8	66.67	25 (69.40)
Divorced/separated/widowed	1	2	16.67	2	2	22.22	7 (19.40)
Employment status							
Employed	5	7	66.67	5	3	44.44	20 (55.60)
Unemployed	3	3	33.33	3	7	55.56	16 (44.40)
Drinking (alcohol)							
Never	4	8	66.67	2	7	50.00	21 (58.30)
Normal drinking	3	2	27.78	2	3	27.78	10 (27.80)
Risky drinking	1	0	5.56	4	0	22.22	5 (13.90)
Family history of suicide							
No	7	8	83.33	2	3	27.78	20 (55.60)
Yes	1	2	16.67	6	7	72.22	16 (44.40)

Table 3. Distribution of the number and proportion of attempted suicides by themes related to perceived causes of suicide attempted in semi-urban district and rural district of Lamphun Province (n=18)

Themes related to perceived causes of suicide attempted	Semi-urban n (%)	Rural n (%)	Total n (%)
Conflict and arguments	14 (77.70)	9 (50.00)	23 (63.89)
Physical illness	3 (16.70)	6 (33.30)	9 (25.00)
Suicide attempt as an escape from failure	1 (5.60)	3 (16.70)	4 (11.11)

"We stayed together, we worked, and we did not earn enough money to pay the debt. Owed a lot of debt" (Husband, age 51)

"Not finding enough money, He tried to borrow..., once unable to pay the debt... then he decided to commit suicide" (Sibling, age 57)

Discussion

The most important theme clearly indicated that conflict and arguments was the main reason for the attempted suicide. Semi-urban had a higher percentage of conflict and arguments than rural. Maybe the semi-urban localities were most likely to

be the urbanization. There are many companies of the industrial estate authority of northern Thailand. The growth of the competing economic environment may be an important cause of conflict. These are in line with a previous study that indicated that rapid urbanization increases the threat of conflict[18]. In addition, urbanization may cause problems such as stressful life events, poor social network, and rapid growth of cities due to immigration. These factors may negatively affect mental health, which makes it a prominent process that should not be neglected[19]. According to the conflict and arguments, those occurred between a spouse or partner, parent and their children, sibling, or other nearly person. The presence of any conflicts and arguments may activate by other relating factors, such as poor family relationship, lack of social support, and convenience to use the rope, their treatment drugs, or bathroom cleaning liquid, to commit suicide.

In the current study, the second important theme was physical illness. The results show that in a high percentage of patients, the physical illness was the perceived reason behind the attempted suicide. The percentage was higher in rural as compared to the semi-urban. In this study, most of rural dwellers finished elementary education or had no formal education. Having a low education and being unemployed had influence on the ability to seek and access health care. Alternatively, the scarcity of resources and physicians in rural areas may influence the quality of primary healthcare center by limiting the variety of health services provided[20]. Therefore, suffering from life limiting diseases have a major impact on the quality of life, decrease independence, and require a continuous supply of drugs and medical treatments. Longer duration of the disease might also play a role for committing suicide because the patient may not have enough knowledge about the course of the disease. This may decrease the social role or enable fewer tasks in life[21]. Therefore, co-morbidity, and the complication in chronic disease can elevate the chance of committing suicide. Drug and alcohol abuse, the lack of problem solving, and loneliness were distal risk factors. Moreover, the themes that related to causes of attempted suicide were associated with the community's surveillance and suicide prevention.

Limitation and recommendation

The current study showed results among caregiver and patients in Lamphun Province, Thailand. The situation in other contexts may be different and would be subject to different criteria and results. These results may not be relevant nationwide, whereas, Thailand has different socioeconomic situations, lifestyles, and cultures. Despite these caveats, the findings could serve as a baseline for comparison with future studies, especially in Northern Thailand. Recall bias were also limitations.

The results could be used to contribute to the prevention of suicide program, especially in primary prevention interventions in the locality.

Conclusion

The caregiver's perceived themes related to causes of attempted suicide in semi-urban and rural districts, Lamphun Province were conflict and arguments, physical illness, and escape from failure. The most important theme of both semi-urban and rural districts was conflict and arguments. It is necessary to understand these themes to be able to meet the need of suicide prevention among patients in the locality.

What is already known on this topic?

The most important causes of many of the attempted suicides include depression, failed relationships, and family issues. Other causes are chronic medical conditions, and serious financial problems. Nevertheless, any difference between semi-urban area and rural area, and what the caregiver perceives as the true causes of the attempted suicide need to be investigated further.

What this study adds?

The current study found three themes related to suicide attempt. They were conflict and arguments, physical illness, and escape from failure. Furthermore, they are similar in semi-urban and rural area. Though, physical illness cause in a rural district was higher than semi-urban district. It indicated that the government should support more resources and physicians in rural areas to improve the quality of primary health care services and suicide prevention.

Conflicts of interest

The authors declare no conflict of interest.

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