

Predictors of Bereavement among the Bereaved Elderly in Community of Bangkok, Thailand

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Background: The elderly experience a variety of problems as a result of physical and psychological decline, which may be exacerbated by grief suffered after bereavement. Few studies exist concerning the bereavement of the elderly in Thailand.

Objective: To assess the predictors of bereavement among the bereaved elderly in community of Bangkok, Thailand.

Materials and Methods: A cross-sectional study was conducted in the Eastern zone of Bangkok, Thailand. A purposive technique was employed to select study participants. One hundred elderly people aged 60 to 80 years, bereaved within the past six months and with a score of 25 or greater on the Inventory of Complicated Grief (ICG), were recruited to the study. Face-to-face interviews using questionnaires were performed for 30 minutes. Multiple linear regression analysis was performed to determine predictors of bereavement in the bereaved elderly.

Results: All of the participants had ICG scores of 33 to 71 (52.32±8.15). Multiple regression analysis revealed that two or four predictors of bereavement such as relationship with the deceased and duration of death significantly predicted bereavement at a level of 73.6% (adjusted R²=0.428, F=6.160, p<0.001).

Conclusion: The present study showed more than one predictor of bereavement affecting the bereaved elderly. The finding had implications for healthcare professionals and policymakers concerning managing healthy aging in the elderly population.

Keywords: Predictors; Bereavement; Bereaved elderly; Inventory of Complicated Grief

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The worldwide population is aging rapidly. In 2020, the number of people aged 60 years and older outnumbered children younger than five years. Between 2015 and 2050, the proportion of the world's population over 60 years will nearly double from 12% to 22%. The number of people aged 65 or older is expected to triple by 2050, and the number aged 80 or older is projected to quadruple. By 2050, 80% of the world's elderly population will reside in low- and middle-income nations⁽¹⁾. This aging world will present a wide range of social and economic challenges, and all nations will have to overcome significant obstacles in their social and health systems⁽²⁾. As elsewhere, in Thailand the number of

people aged 60 and over has grown rapidly. Currently, the Thai population is 66,012,691, with 13,351,328 of those being 60 years or older⁽³⁾. This group is projected to increase to almost a third of the total population within two decades. Ensuring that older people are at the forefront of development creates the realistic possibility of ensuring economic security and social support from the community and government, as well as through the traditional mechanisms of family support. The elderly suffer from a general decline in function, as well as an increased risk of pathologic conditions, known as co-morbidity. The deterioration of physical abilities can also play a role in psychosomatic illnesses, depression, and suicide rates, which are highest in people over 65. Any difficulties encountered risk being a greater burden than usual, and the death of a loved one can exacerbate this even further⁽⁴⁾.

Bereavement describes the loss of the significant loved one through death. This may be a spouse, family member, close friend, or even a pet. The term bereavement and grief are used inconsistently in the literature to refer to either the state of having lost someone to death or the response to such a loss⁽⁵⁾.

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Bereavement can significantly affect health and well-being at any age but has a greater impact on elderly people. Loneliness, depression, and difficulty in daily living are all common among the elderly who have experienced bereavement, and these symptoms can last for months or even years. This may result in a decreased quality of life and can even influence those who are close to them^(6,7). Academics are unsure of how to identify bereaved people who are grieving and need treatment, or how to pinpoint factors that made bereavement worse, particularly in elderly people. Investigations have concentrated on identifying information gaps in the extensive body of research on grieving in older individuals. These reports typically focus on the negative consequences of bereavement, such as stress and social isolation, rather than factors predicting severity. A known predictor influencing bereavement in the elderly is the relationship between the bereaved individual and the deceased, which can have a significant impact on the grieving process. Losing a spouse or child is typically more difficult to cope with than losing a more distant relative or friend⁽⁸⁾. The cause of death, the age of the deceased, and the differences in individual personality and coping style can influence the grieving process. People who have a more optimistic outlook or who are better able to regulate their emotions may be more resilient in the face of loss⁽⁹⁾.

The availability and quality of social support can also have a significant impact on the grieving process. People who feel connected to others and supported by family and friends may find it easier to deal with their loss than those who do not. The grieving process can also be influenced by cultural and religious beliefs and customs. For instance, some cultures have particular customs or rituals that are meant to assist individuals in dealing with loss. These factors can interact in complex ways to influence the grieving process. Understanding these factors can help healthcare professionals and other caregivers provide appropriate support and care to elderly people who suffer bereavement.

Objective

The presented study aimed to determine predictors of grief severity among elderly people who suffered bereavement within the past six months in the community of Bangkok, Thailand.

Materials and Methods

Study design

The present study was a cross-sectional study.

Questionnaires addressed socio-demographic characteristics, relationships between the bereaved and the community, and the relationship between the bereaved and the deceased. The bereavement score and variables that affected bereavement were also included. A face-to-face interview of approximately 30 minutes was used to conduct the questionnaires.

Population and sample

The participants in the present study were bereaved elderly people 60 to 80 years old. The Eastern zone, one of the six zones of Bangkok, was chosen due to its high demographic proportion of Bangkok's elderly population. There were eight districts and an aging population of around 176,247 persons (19.24%) of the total aging population of Bangkok⁽¹⁰⁾. Participants were selected using a purposive strategy, due to vulnerability issues in the target groups. One hundred bereaved elderly people were enrolled in the study by the following inclusion criteria (a) aged 60 to 80 years old, (b) had experienced bereavement within the previous six months and had an Inventory of Complicated Grief (ICG) score of 25 or greater, (c) had resided in the study area for more than one year, (d) had no history of psychiatric problems or alcoholism, (e) were able to communicate in the Thai language, and (f) were willing to participate in the present study. Participants were excluded if they (a) were not Thai, or (b) moved out of the area during the study. The sample size of 100 participants was decided as part of an in-progress quasi-experimental study to explore the effectiveness of the elderly-treated toddler program, which sought 100 bereaved elderly people for the program.

Ethical approval

All the participants provided their written informed consent, and the information was kept confidential. After the study is completed all of the data from the participants will be destroyed to prevent back tracing to the participants. The recent study was approved by the Research Ethics Review Committee for Research Involving Human Research Participants, Health Sciences Group 1, Chulalongkorn University, Thailand, certificate of approval (COA). No. 069/66.

Instrumentation

Copyrighted permission was obtained for the questionnaire utilized in the study. Collected socio-demographic characteristics of the participants included gender, age, education, occupation, income, social support, and community activities. The factors

relating to the deceased included relationship with the deceased, duration of death, and cause of death. The researcher assessed content validity by the item-objective congruence (IOC) procedure, validated by three experts, verifying a score of each item of 0.5 or greater, a total of 0.85, and Cronbach's alpha coefficient of 0.9. The ICG questionnaire, developed by Prigerson et al. contained 19 items, scored from "never" with a score of 0 to "always" with a score of 4. A score of 25 or more is considered to represent complicated grief⁽¹¹⁾ and gives Cronbach's alpha coefficient of 0.97. Overall IOC analysis of the instrument showed a score for each item of 0.5 or greater and Cronbach's alpha coefficient of 0.878. This questionnaire was translated to Thai version by Yaiyong, which had of Cronbach's alpha coefficient of 0.97⁽¹²⁾.

Data collection

The data collection process proceeded as follows. Permission was gained from the provincial committees of the targeted area. Nurses and village health volunteers were then trained to explain the purpose and method of the study to the participants, how to use the instruments, how to collect socio-demographic data, and the ICG score. A 30-minute face-to-face interview was then conducted with each participant. After participants completed the questionnaire, researchers verified the completeness of the information before recording and analyzing the data. Participants were informed that all the information was confidential and would be used only for research and educational purposes.

Data analysis

General characteristic information of the participants was described by descriptive statistics including frequency, percentage, mean, standard deviation, maximum, and minimum score. For the ICG, maximum, and minimum score, mean, and standard deviation were used to represent the scores. Correlation coefficients and predictors were used to display the relationship between the deceased and participant, duration of death, and cause of death. Bivariate analysis was conducted with an independent samples t-test to explore the unadjusted association between each independent variable and dependent variable (bereavement). The variables with p-values less than 0.30 in bivariate analysis were used to assess predictors for bereavement among the bereaved. Multiple regression analysis tested the normality, linearity, homoscedasticity, and multicollinearity

of the data. Multiple linear regression was used to identify the significant predictors and the relationship between predictors such as the relationship between deceased and participant, duration of death and cause of death, and ICG score, for bereavement among the participants. The p-values of 0.05 were considered statistically significant.

Results

One hundred participants were included in the bivariate analysis of the factors associated with bereavement. Most of the respondents (63%) were aged 60 to 70 years (51.94 ± 8.31). The majority of participants were female at 57% (52.81 ± 7.99). Most were married and lived with their partner for 54% (52.48 ± 7.33). Most participants (71%) (51.59 ± 8.42), were educated, but fewer than half (44%) (51.18 ± 9.47), reported adequate income without savings. A small proportion (31%) (51.65 ± 9.38) participated in community activities once a month. The elderly club was not well attended, with 26% (52.92 ± 9.12) reporting never going. Furthermore, 27% (52.44 ± 8.55) never attended the district health promotion hospital. In more than half of cases (52%) (47.81 ± 5.70), the relationship with the deceased was a cousin or neighbor. The most common duration of death of the deceased was 7 to 12 weeks in 55% (53.71 ± 6.88). The cause of death was by non-communicable disease in 51% (52.27 ± 7.67) of cases. All participants were considered as suffering from grief according to the ICG, with a score of 25 or higher, with an average score of 52.32 (SD 8.15, range of 33 to 71) (Table 1).

Multivariate linear regression analysis was used to test variables in the socio-demographic data that might be relevant to grief. However, the model supported a set of independent variables that significantly predicted bereavement at a level of 73.6% (adjusted $R^2=0.428$, $F=6.160$, $p<0.001$). This model showed that a relationship with the deceased as a spouse ($p<0.001$) or children or grandchildren ($p<0.001$), and duration of death of 7 to 12 weeks ($p<0.001$) or 13 to 24 weeks ($p<0.001$) were significantly associated with severity of grief. Among these factors, the relationship with the deceased had the highest power variable in predicting grief, both for a spousal relationship ($\beta=0.534$, $p<0.001$, 95% CI 6.550 to 12.525) and children or grandchildren ($\beta=0.383$, $p<0.001$, 95% CI 4.235 to 11.585). These factors were followed by a duration of death of 7 to 12 weeks ($\beta=0.421$, $p<0.001$, 95% CI 3.731 to 9.977) and 13 to 24 weeks ($\beta=0.249$, $p=0.016$, 95% CI 0.919

Table 1. Bivariate analysis of the factors associated with bereavement (n=100)

| Variables | Total | | Bereavement score | | p-value |
|---|--------|---------|-------------------|------|---------|
| | Number | Percent | Mean | SD | |
| Bereavement | 100 | 100 | 52.32 | 8.15 | |
| Min-max (33 to 71) | | | | | |
| Age | | | | | 0.542 |
| 60 to 70 years | 63 | 63.0 | 51.94 | 8.31 | |
| 71 to 80 years | 37 | 37.0 | 52.97 | 7.93 | |
| Sex | | | | | 0.494 |
| Male | 43 | 43.0 | 51.67 | 8.40 | |
| Female | 57 | 57.0 | 52.81 | 7.99 | |
| Marital status | | | | | 0.831 |
| Without partner | 46 | 46.0 | 52.13 | 9.09 | |
| With partner | 54 | 54.0 | 52.48 | 7.33 | |
| Having education | | | | | 0.163 |
| No | 29 | 29.0 | 54.10 | 7.27 | |
| Yes | 71 | 71.0 | 51.59 | 8.42 | |
| Sufficiency of income | | | | | 0.243 |
| Insufficient and debt | 22 | 22.0 | 52.14 | 7.21 | |
| Not enough but no debt | 14 | 14.0 | 56.29 | 5.17 | |
| Enough but no saving | 44 | 44.0 | 51.18 | 9.47 | |
| Enough and saving | 20 | 20.0 | 52.25 | 7.24 | |
| Join with community activities | | | | | 0.875 |
| Never | 20 | 20.0 | 52.45 | 7.60 | |
| Once a year | 13 | 13.0 | 53.23 | 9.36 | |
| Once a month | 31 | 31.0 | 51.65 | 9.38 | |
| Once a week | 17 | 17.0 | 51.18 | 7.79 | |
| Regularly | 19 | 19.0 | 53.68 | 6.36 | |
| Attend the elderly club | | | | | 0.708 |
| Never | 26 | 26.0 | 52.92 | 9.12 | |
| Once a year | 18 | 18.0 | 51.44 | 8.22 | |
| Once a month | 24 | 24.0 | 50.92 | 7.67 | |
| Once a week | 21 | 21.0 | 52.57 | 7.85 | |
| Regularly | 11 | 11.0 | 54.91 | 7.83 | |
| Attend the activities of the district health promotion hospital | | | | | 0.344 |
| Never | 27 | 27.0 | 52.44 | 8.55 | |
| Once a year | 11 | 11.0 | 56.09 | 8.44 | |
| Once a month | 21 | 21.0 | 51.48 | 7.92 | |
| Once a week | 19 | 19.0 | 49.89 | 8.11 | |
| Regularly | 22 | 22.0 | 53.18 | 7.62 | |
| Relationship with the deceased | | | | | <0.001 |
| Husband or wife | 29 | 29.0 | 57.62 | 8.47 | |
| Children/grandchildren | 19 | 19.0 | 56.58 | 6.18 | |
| Cousin/neighbor | 52 | 52.0 | 47.81 | 5.70 | |
| Duration of death | | | | | <0.001 |
| 1 to 6 weeks | 22 | 22.0 | 46.09 | 8.26 | |
| 7 to 12 weeks | 55 | 55.0 | 53.71 | 6.88 | |
| 13 to 24 weeks | 23 | 23.0 | 54.96 | 8.15 | |
| Cause of death | | | | | 0.024 |
| Senility | 30 | 30.0 | 49.87 | 8.04 | |
| Accident | 19 | 19.0 | 56.32 | 8.39 | |
| Non-communicable diseases | 51 | 51.0 | 52.27 | 7.67 | |

SD=standard deviation

Table 2. Multivariate analysis of the predictors associated with bereavement (n=100)

| Variables | b | SE(b) | b_std. | p-value | 95% CI of b | |
|--|--------|-------|--------|---------|-------------|--------|
| | | | | | LB | UB |
| (Constant) | 43.633 | 2.559 | | <0.001 | 38.549 | 48.717 |
| Having education (ref. No) | -1.375 | 1.473 | -0.077 | 0.353 | -4.301 | 1.551 |
| Sufficiency of income (ref. Enough and saving) | | | | | | |
| Insufficient and debt | -0.771 | 2.014 | -0.039 | 0.703 | -4.773 | 3.231 |
| Not enough but no debt | 1.981 | 2.258 | 0.085 | 0.383 | -2.506 | 6.468 |
| Enough but no saving | -0.522 | 1.691 | -0.032 | 0.758 | -3.883 | 2.839 |
| Relationship with the deceased (ref. Cousin/neighbors) | | | | | | |
| Husband or wife | 9.538 | 1.503 | 0.534 | <0.001* | 6.550 | 12.525 |
| Children/grandchildren | 7.910 | 1.850 | 0.383 | <0.001* | 4.235 | 11.585 |
| Duration of death (ref. 1 to 6 weeks) | | | | | | |
| 7 to 12 weeks | 6.854 | 1.572 | 0.421 | <0.001* | 3.731 | 9.977 |
| 13 to 24 weeks | 4.802 | 1.954 | 0.249 | 0.016* | 0.919 | 8.685 |
| Cause of death (ref. Senility) | | | | | | |
| Accident | -0.026 | 1.929 | -0.001 | 0.989 | -3.859 | 3.807 |
| Non-communicable diseases | 1.350 | 1.478 | 0.083 | 0.364 | -1.587 | 4.287 |
| R square | =0.486 | | | | | |
| Adjusted R square | =0.428 | | | | | |
| SE of the estimate | =6.160 | | | | | |
| Overall p-value | <0.001 | | | | | |

CI=confidence interval; LB=lower bound; UB=upper bound

* Significance at $p < 0.05$, by multiple linear regression

to 8.685), respectively (Table 2).

Discussion

The present study focused on the analysis of variables that may predict grief in bereaved elderly. Variables included a range of demographics including age, gender, marital status, education, and income, a range of community activities including participation in community activities, attendance at an elderly club, attendance at a district health promotion hospital, and the relationship with the deceased such as relationship, duration of death, and cause of death. As in other studies, the majority of participants were female, reflecting the higher mortality rate of men and their tendency to marry slightly younger women. Widowhood has a significant impact on the circumstances and well-being of older adults, particularly women, and increasingly becomes a problem with longer life expectancy⁽¹³⁾. Bereavement is associated with more severe depressive symptoms in women over time, but not always in men. Studies have examined women's coping mechanisms, such as a study of Thai Buddhist wives whose husbands had died of serious illness. The important life domains identified included the lived experiences of bereavement, isolation from others, and loneliness⁽¹⁴⁾.

Other studies also identified the new role as a widow and the building of new relationships with others as important factors⁽¹⁵⁾. Most participants were aged 60 to 70 years. This group had a slightly lower grief score than the older participants aged 71 to 80 years. This is relevant as a study in Thailand found that Thai elderly people aged 75 years or over suffered bereavement at a rate of around 16.2%⁽¹⁶⁾. Marital status suggests that bereaved elderly people who live with their partner had slightly higher grief than those who lived without their partner. A study revealed that a small percentage of partners and non-partners had a high grief trajectory, and a group of bereaved elderly people living with their partners had a late grief trajectory⁽¹⁷⁾.

Most educated participants had lower grief scores than the group who had no education. This suggests that low education is a persistent potential factor of grief that requires intervention. This information could be used to prevent the consequences of bereavement. Another factor impacting older people's grief was income. The present study results showed that most had sufficient income but no savings. Previous studies had shown that older people with financial difficulties lack family support, especially psychosocial support, and after the loss of a loved one

are at increased risk for depression and complicated grief(18). Most of the elderly participants joined the community activities once a month. This can help overcome bereavement and the extent and quality of social support can also significantly affect the grieving process. People who feel connected to others and supported by family and friends may find it easier to cope with their loss than those who feel alone or unsupported⁽¹⁹⁾. The same can be true for attendance at an elderly club. However, most of the participants reported having never attended the club. Similarly, most had never attended the district health promotion hospital and had never attended activities relevant to their health. A study has suggested that health professionals and other caregivers can play a critical role in supporting older people in their time of bereavement by providing emotional support, connecting them to resources and support groups, and promoting self-care activities. Providing health professionals and caregivers with more practical, useful knowledge about these individuals could be key to ensuring that the elderly are aware and pay attention to these available health services⁽²⁰⁾.

The relationship between the bereaved and the deceased had the greatest impact on the grief score, particularly in the case of a spousal or parent-child relationship. A previous study had revealed that for those with particularly close relationships, sudden or unexpected loss led to the experience of more difficult grief than in elderly people with a more distant relationship to the deceased⁽²¹⁾. A duration of death of 7 to 12 weeks had a slightly bigger impact than a duration of 13 to 24 weeks. This supports a study that revealed that people who suffer bereavement experience psychological reactions and must find a way to cope with the loss⁽²²⁾. In terms of factors that influence grief in elderly people, the presented results showed that a spousal relationship with the deceased had the greatest effect on the grieving process, followed by relationships with children or grandchildren. This clarifies that the loss of a spouse or child is more difficult to cope with than the loss of a close friend or other relative. The duration of illness also plays a key role, as grief normally begins within months of the loss, which depending on the culture, may last six months or longer⁽²³⁾. Promoting healthy aging, providing social security, and supporting the economic stability of elderly people are all important parts of addressing the demands of Thailand's aging population⁽²⁴⁾. The question of the function of empathy in the ongoing grief response after loss can then be addressed⁽²⁵⁾.

Limitation

There were few older people in Bangkok who experienced loss, the sample size in the recent study was small. The time of bereaved varied, and the researcher could not interview all participants at the same time. The cross-sectional design, thus causal relationships cannot be established. In addition, purposive selection can lead to bias.

Conclusion

In the current study, factors affecting the complicated grief score of elderly people were found to include several aspects. The strongest factor was the relationship with the deceased, followed by the duration of illness. In the future, more important research is required to address the needs of bereaved elderly people beyond the elements mentioned in the current study.

What is already known on this topic?

Regardless of their age, gender, or whether they received support, the elderly experienced bereavement on par with other age groups.

What does this study add?

This study found that a spouse's death had a greater effect on the family, and the duration of illness, respectively, were stronger than any other association with the deceased as well as the deceased's cause of death or lack of income.

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Conflicts of interest

The authors declare that there are no conflicts of interest associated with the present study.

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