ORIGINAL ARTICLE

# Prevalence of Prolonged Grief Disorder (PGD) among bereaved relatives in a Malaysia Palliative Care Unit (PCU)

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## ABSTRACT

**Introduction: Prolonged grief disorder (PGD) is a diagnosis characterised by severe, persistent and disabling grief beyond 6 months post-death of a loved one. The new text revision of DSM-5 (DSM-5-TR) approved a new diagnosis PGD on March 2022. In Malaysia, PGD is not routinely screened in healthcare settings and hence goes untreated. The aim of this study is to identify prevalence and factors related to PGD among bereaved relatives whose loved ones had access to PCU services.**

**Materials And Methods: A cross-sectional study involving bereaved individuals in Palliative Care Unit Hospital Selayang. Participants (n=175) were recruited through telephone, and a validated tool Prolonged Grief Disorder Scale (PG-13) was asked to identify PGD. Further data collected were concomitant stressors in life and support system in the bereaved individual.**

**Results: Prevalence of PGD was 2.9% (n=5), and subthreshold PGD was 4% (n=7). A model of multiple logistic regression calculated most of the traditional risk factors were not significant except having an increased responsibility as a single parent after passing of a spouse or loved one, had 10 times increased odds of PGD (Odds Ratios: 10.93; 95% Confidence Interval: 2.937, 40.661). Otherwise, immediate family support (80%), religion (60%) and community (40%) support were the top three coping mechanisms of our PGD cohort, although they were not significant in a multiple logistic regression model.**

**Conclusion: Our PGD percentage may not be as high as those of other countries, but nonetheless they exist and their needs are just as important. The authors hope that this paper may create an awareness among the healthcare clinicians about PGD in our society, for a greater access of service to understand them and better public awareness.**

**KEYWORDS:**
*Prolonged grief disorder; complicated grief; grief and bereavement; palliative care; prevalence*

## INTRODUCTION

Grief is described as a central experience in response to the loss of something loved and valued.[1] It is deemed a normal reaction when referring to distress of an individual resulting from bereavement[2] and consequences of bereavement will vary for each individual.[3] A bereaved individual experience a sense of losing control, and an intense distress, anxiety, yearning, sadness, fear, loneliness and preoccupation.[4,5]

Despite the fact that bereavement can be highly distressing, most individuals are resilient and have sufficient internal resources and external support to adequately cope with their grief. Even though it is associated with a period of acute suffering, over time most people slowly readjust. They adapt to a life without the deceased without adverse health-related effects.[6]

Adapting from Tonkin's model growing around grief; making new friends, having new experiences and beginning to look forward are examples of 'growing around grief'.[7] There will be times when the bereaved would experience grief with such intensity like it has just happened, while trying to get on with life- is a normal concept. But through time, they will find ways to keep the memory of the person who has died, while at the same time moving forward with their lives.

The dual process model or Stroebe's dual process model of coping describes grief as a process of moving between two modes of functioning- the 'loss orientation', where people focus on the emotions (usually sad and difficulty) associated with their loss. And on the other hand, the 'restoration orientation', where people focus on the demands of reorganising their lives and returning to everyday tasks and issues. It is only when the bereaved gets trapped in either one mode, that a problem may arise.[8]

For some, they experience notable dysfunction for atypically long periods of time following a significant loss, which is known as prolonged grief disorder (PGD).[9] World Health Organization (WHO) described its core symptoms as a pervasive yearning for the deceased or persistent preoccupation with the deceased accompanied by intense emotional pain (e.g., sadness, guilt, anger, denial, blame, difficulty accepting the death, feeling one has lost a part of one's self, an inability to experience positive mood, emotional numbness, difficulty in engaging with social or other activities).[10] Individuals suffering from PGD find it difficult to engage in social or enjoyable activities, a reduced ability to experience positive mood and difficulties accepting the death of their loved. These disturbances cause significant debilitating lifestyle in personal, family, social, educational,

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occupational or other important areas of functioning.[10] A time frame of at least six months is proposed to allow natural grief reactions in the setting following death of a significant someone and clearly exceeds expected social, cultural or religious norms for the individual's culture, may be assigned a diagnosis of PGD.[9]

PGD can lead to medical complications associated with severe mental and physical health problems and even suicide.[11] Neimeyer et al.,[12] observed bereaved individualsin in the PGD cohort reported higher utilisation of medical services.

PGD was formally included in the 11th revision of the International Classification of Disease (ICD-11) in 2018. In 2020, the American Psychiatric Association approved a new diagnosis of PGD, and release the new text revision of DSM-5 (DSM-5-TR), on March 2022.[13] It has a more specific criteria and required the occurrence of a persistent and pervasive grief response characterised by persistent longing or yearning and/or preoccupation with the deceased accompanied by at least 3 of 8 additional symptoms that include disbelief, intense emotional pain, feeling of identity confusion, avoidance of reminders of the loss, feelings of numbness, intense loneliness, meaninglessness or difficulty engaging in ongoing life. The difference with the diagnosis by DSM-5-TR is the duration of death of the loved one at least 12 months and not 6 months.

Researchers have found symptoms of PGD to be similar symptoms as found in other mental disorders. Thus, the inclusion of the diagnostic criteria for PGD in DSM-5-TR helps clinicians use a common standard to differentiate between normal grief and a persistent and disabling grief.

The prevalence of PGD is estimated between 7% and 10% of bereaved adults who will experience the persistent symptoms of PGD.[14-18]

In Malaysia, most healthcare facility does not have bereavement services, even less so with screening of PGD. This would be one of the first research into prevalence of PGD in Malaysia. Our differences in ethnicity and cultural background compared to the Western World or First world countries would give us a different insight as to the prevalence of PGD and identify the factors related to PGD in our population.

## MATERIALS AND METHODS

The present study is a cross-sectional study involving bereaved individuals in Palliative Care Unit (PCU) Hospital Selayang. It has inpatient, outpatient and day-care services. Bereaved individuals from this centre were reached via telephone after their loved ones had passed more than 6 months for purposive sampling method.

The Medical Research and Ethics Committee (MREC), Ministry of Health Malaysia (MOH) has provided ethical approval for this study on the 13th April 2021 with reference number NMRR-20-2937-55902 (IIR). Data collection from participants took a total of 9 months to complete from December 2020 up to September 2021.

*Selection Criteria*

The study included bereaved individuals more than 18 years old, that has lost a loved one who has been registered under PCU Hospital Selayang. Duration post-death was a minimum of 6 months who had died in the PCU ward of hospital Selayang or those that passed away at home after being terminally discharged from the same hospital.

The exclusion criteria were bereaved caregivers who experienced loss less than 6 months. Also, those that were unable to understand the study protocol and consent process.

*Statistical Methods*

The study is a prospective cross-sectional data collection.

Statistical data analysed using IBM SPSS Statistics Version 24. Data were entered following SPSS format and analysed using descriptive statistics for frequencies and multiple logistic regression for variable selections. The p-value of two variables were determined by Pearson correlation.

*Sample Size*

Sample size estimation was calculated using the local population proportion formulae.[19]

**Sample size ($n$) without Finite Population Correction:**

$$= \frac{\left(Z_{1-\frac{\alpha}{2}}\right)^2 p(1-p)}{d^2}$$

where $n$ = sample size, $Z$ = level of confidence, $\alpha$ = alpha, $p$ = expected prevalence or proportion, and $d$ = precision.

Prior data indicated that the prevalence of PGD was 0.1.[14] If the Type I error probability and precision are 0.05 and 0.05, respectively, a sample size of 139 is needed. However, considering an additional 20% dropout rate, the sample size is 174 participants with 80% confidence level.

*Procedure*

All bereaved individuals who fulfilled the inclusion criteria were recruited via telephone by 2 doctors trained for this study. The telephone calls were done independently to allow privacy. Those who gave verbal consent, proceeded to undergo series of self-reported questionnaires done through the telephone call. All participants were contacted once to complete the questionnaire.

*Measures*

Relevant sociodemographic data were collected from the bereaved carers as listed in Table I. A validated tool to identify PGD using the PG-13 questionnaire were administered in English or Malay language. The reliability scale for both languages using Cronbach's alpha value was 0.836 (which indicates good reliability). The validity value using Kaiser-Meyer-Olkin and Bartlett's test measure $p<0.05$ for English and Malay language.

After the questionnaire, participants were identified as PGD, subthreshold PGD and PGD not present (Table II). Furthermore, concomitant stressors present in the bereaved individuals' life that may have complicated the bereavement process are shown in Table III. Lastly, the questionnaire also looked for coping mechanisms, strengths and support systems of the participant (Table IV).

*Prolonged Grief Disorder (PGD) Scale*
PGD was measured using a validated and diagnostic tool; the Prolonged Grief Disorder Scale (PG-13).[9,20] It is a 13-item self-report questionnaire including PGD symptoms of separation distress; cognitively, emotionally and behavioural change at least 6 months post-loss and must be associated with significant functional impairment.

The PG-13 included eleven Likert-type questions and two "yes/no" questions, which evaluated symptoms of separation distress and other cognitive-emotional behaviours specific to PGD. The nine symptoms of PGD consist of feeling stunned, intense emotional pain, bitterness, numbness, a loss of self, trouble accepting the reality of the loss, a mistrust of others, difficultly moving on and that life is meaningless since their loss.

The eleven 5-point Likert scale from 1 (not at all) to 5 (very much). A PGD diagnoses must meet the following four criteria: (1) at least daily separation distress (score of 4+ on item 1 or 2); (2) at least five cognitive, emotional, or behavioural symptoms (score of 4+ on at least five of nine items from 4 through 12); (3) symptoms of separation distress at least 6 months after the loss (item 3) and (4) significantly impaired social, occupational, or other important areas of functioning (score of 4+ on item 13).

Furthermore, PGD subthreshold cases met three of the four PGD criteria, and on the other hand, anything below that was not inclined towards PGD.[2] The PG-13 questionnaire can be summed and used as an assessment tool to measure the severity of PGD symptoms; higher scores reflect greater symptoms of PGD.

*Concomitant Life Stressors*
There were some concomitant life stressors of the bereaved individual that were included in the questionnaire. These were: (1) increased responsibility as a single parent after their spouse passed on, (2) pressures from the workplace, (3) role as a caregiver for another person, (4) serious financial challenges, (5) unemployment, and (6) relationship struggles/ divorce.[21,22] Participants were asked whether they had ever experienced each of these factors during or after the death of their loved ones; to respond in a "yes/no". The survey also explored on the health of the caregivers and if they suffered from any medical illnesses which would contribute to additional stress (eg. burden of the disease, medications, doctors' appointments etc). The medical illnesses that were included were those under a follow up from a healthcare practitioner. Participants were also asked if they encountered cumulative losses that could contribute to their own grieving process. The response was a "yes/no" format and free text.

*Support System/Coping Mechanisms*
Participants were enquired on their existing support system or coping strategies; whether it be from their: (1) immediate family, (2) relatives, (3) community, (4) religion or (5) others. They answered in a yes/ no format and free text.

*Follow-Up*
Further assistance is offered in terms of a counsellor for those who needed it.

## RESULTS

A total of 175 participants fulfilled the inclusion criteria and completed the questionnaire via phone call. Participants' demographics available in Table I. Participant's column was divided into overall participants that took part in this study, participants that did not have PGD, Subthreshold PGD and identified to have PGD
PGD and subthreshold PGD.

The prevalence of PGD and subthreshold PGD post-bereavement were determined using PG-13 criteria as a binary measure and presented in Table II. The results showed the prevalence of PGD was 5 out of 175 (2.9%) and subthreshold PGD was 7 of 175 (4%) bereaved individual.

Stressors in life of all the participants and its subgroups are shown in Table III anf IV. Overall, most of our participants had stressors unrelated to those mentioned or none at all. Among the risk factors asked, participants had cumulative losses (29.1%), own medical illness (24.6%) and financial issues (21.1%). Breaking down the subcategories showed cumulative losses to be more predominant in the PGD category of 40% compared to the others. Based on results presented in Table III, subthreshold PGD group had no medical illness to cope with (100%), whereas only a quarter in the no PGD group. Those with PGD carried most (80%) of the risk factor for insufficient financial resources.

Risk factors that fall less than 10% for all participants were work-related stress (9.7%), parenting-related stress (8.6%), unemployment (5.7%) and being a caregiver to another ill person (3.4%). Participants in PGD and subthreshold PGD group had higher rates of work-related stress; 40% and 14.3%, respectively. Overall parenting-related stress overall was only 8.6%, but majority of the participants with those risk factors fall in the PGD group (60%) and subthreshold PGD group (28.6%).

The results showed that being a caregiver to an ill person and unemployment was not one of the risk factors in PGD group.

In a multiple logistic regression model for PGD and subthreshold PGD with conventional risk factors (pressures from work, unemployment, financial hardships, caregiver for another person, personal relationship problems, e.g., divorce, cumulative losses, or own medical illnesses) were not found to be significant in a simple regression model. On the other hand, the estimated 10 times higher odds (Odds Ratios, OR: 10.93, 95% CI 2.937, 40.661) of developing PGD and subthreshold PGD when there is an increased responsibility as a single parent after the passing of their spouse or loved ones.

The support system of the overall bereaved participants and its subgroups (PGD not present, subthreshold PGD and PGD present) are shown in Table V. Across all groups, immediate family support is at a high ≥80% throughout, and those without PGD had the most support at 86.5%. This was followed by religion, contributing to 41.7% of our bereaved participants. Most of them were Muslim (25.7%), followed by Buddhist (16.6%), then Hindu (7.4%), Christian (4%) and others (0.6%). It is apparent that our PGD participants had religion as a second major component in their manner of coping at 60%.

**Table I: Demographics of participants**

| Demographic | Overall (n=175) | PGD not present (n=163) | Subthreshold PGD (n=7) | PGD present (n=5) |
|---|---|---|---|---|
| Bereavement period (in months); Mean (SD) | 9.16 (2.4) | 9.16 (2.5) | 9.14 (1.5) | 9.2 (2.3) |
| Relationship with deceased; n (%) | | | | |
| Father | 49 (28.0) | 48 (29.4) | 1 (14.3) | 0 (0.0) |
| Mother | 45 (25.7) | 44 (27.0) | 1 (14.3) | 0 (0.0) |
| Husband | 36 (20.6) | 28 (17.2) | 4 (57.1) | 4 (80) |
| Others | 20 (11.4) | 19 (11.7) | 1 (14.3) | 0 (0.0) |
| Siblings | 12 (6.9) | 12 (7.4) | 0 (0.0) | 0 (0.0) |
| Wife | 6 (3.4) | 5 (3.1) | 0 (0.0) | 1 (20) |
| Grandmother | 4 (2.3) | 4 (2.5) | 0 (0.0) | 0 (0.0) |
| Grandfather | 3 (1.7) | 3 (1.8) | 0 (0.0) | 0 (0.0) |
| Main caregiver; n (%) | | | | |
| Yes | 135 (77.1) | 123 (75.5) | 7 (100) | 5 (100) |
| No | 40(22.9) | 40(24.5) | 0 (0.0) | 0 (0.0) |
| Very close relationship; n (%) | | | | |
| Yes | 159 (90.0) | 147 (90.2) | 7 (100.0) | 5 (100.0) |
| Somewhat | 13(7.4) | 13(8.0) | 0 (0.0) | 0 (0.0) |
| No | 3(1.7) | 3(1.8) | 0 (0.0) | 0 (0.0) |
| Duration post-death of loved one; n (%) | | | | |
| 6 months | 35 (20.0) | 35 (20.0) | 0 (0.0) | 0 (0.0) |
| 7-11 months | 102 (58.3) | 91 (55.8) | 7 (100.0) | 4 (80.0) |
| 12 months | 21 (12.0) | 21 (12.9) | 0 (0.0) | 0 (0.0) |
| 12-15 months | 17 (9.7) | 16 (9.8) | 0 (0.0) | 1 (20.0) |

**Table II: Subcategory PGD not present, subthreshold PGD, PGD**

| PG13 Subcriteria | Overall (n=175) | PGD not present (n=163) | Subthreshold PGD (n=7) | PGD present (n=5) |
|---|---|---|---|---|
| Separation distress; n (%) | 73 (41.7) | 61 (37.4) | 7 (100.0) | 5 (100.0) |
| Cognitive, emotional and behavioral symptoms; n (%) | | | | |
| ≥5/9 items from question #4-12 | 8 (4.6) | 0 (0.0) | 3 (42.9) | 5 (100.0) |
| <5 items from question #4-12 | 167 (95.4) | 163 (100.0) | 4 (57.1) | 0 (0.0) |
| Symptoms of separation distress ≥6months after the loss; n (%) | 73(41.7) | 61(37.4) | 7 (100) | 5(100) |
| Functional impairment; n (%) | | | | |
| Yes | 12(6.9) | 3(1.8) | 3(42.9) | 7(100.0) |
| No | 163(93.1) | 160(98.2) | 4(57.1) | 0 (0.0) |

**Table III: Stress factors with PGD and no PGD underwent regression analyses**

| Stress Factors | PGD and subthreshold PGD (n=12) | No PGD (n=163) | Simple Logistic Regression | | Multiple Logistic |
|---|---|---|---|---|---|
| | | | Crude OR (95% CI) | P Value | Adj. OR (95% CI) |
| Pressure from parenting-related stress; n(%) | | | | | |
| Yes | 5 (33.3) | 10 (66.7) | 10.93 (2.94, 40.66) | <0.001 | 10.93 (2.94, 40.66) |
| No | 7 (4.4) | 153 (95.6) | 1.00 | | 1.00 |
| Pressure from work; n(%) | | | | | |
| Yes | 3 (17.6) | 14 (82.4) | 3.55 (0.86, 14.63) | 0.080 | |
| No | 9 (5.7) | 149 (94.3) | 1.00 | | |
| Financial challenges; n(%) | | | | | |
| Yes | 6(16.2) | 31(83.8) | 1.436 (1.065, 1.938) | 0.018 | |
| No | 6(4.3) | 132(95.7) | 1.00 | | |
| Other factors; n (%) | | | | | |
| Yes | 6(5.3) | 108(94.7) | 0.908 (0.768, 1.074) | 0.261 | |
| No | 6(9.8) | 55(90.2) | 1.00 | | |

NS: Not significant
NA: Not applicable

**Table IV: Stress factors with PGD and no PGD unable to proceed with regression analyses**

| Stress Factors | PGD and subthreshold PGD (n=12) | No PGD (n=163) | P Value |
|---|---|---|---|
| Being a caregiver to another ill person; n(%) | | | |
| Yes | 1 (16.7) | 5 (83.8) | 0.351 |
| No | 11 (6.5) | 158 (93.5) | |
| Unemployment; n (%) | | | |
| Yes | 0 (0.0) | 10 (100.0) | >0.995 |
| No | 12 (7.3) | 153 (92.7) | |

**Table V: Support system with PGD and non PGD**

| Support system | PGD and subthreshold PGD (n=12) | No PGD (n=163) | Simple Logistic Regression | |
|---|---|---|---|---|
| | | | Crude OR (95% CI) | P value |
| Immediate family; n(%) | | | | |
| Yes | 10(6.6) | 141(93.4) | 0.780 (0.160, 3.800) | 0.759 |
| No | 2(8.3) | 22(91.7) | 1.00 | |
| Relatives; n(%) | | | | |
| Yes | 3(4.5) | 64(95.5) | 0.516 (0.134, 1.977) | 0.334 |
| No | 9(8.3) | 99(91.7) | 1.00 | |
| Community; n(%) | | | | |
| Yes | 7(9.6) | 66(90.4) | 0.681 (0.143, 3.247) | 0.630 |
| No | 5(4.9) | 97(95.1) | 1.00 | |
| Religion; n (%) | | | | |
| Yes | 7(9.6) | 66(90.4) | 2.058 (0.626, 6.760) | 0.234 |
| No | 5(4.9) | 97(95.1) | 1.00 | |

PGD: Prolonged grief disorder

The support from relatives is more than one-third in overall participants, with none of them being a pillar of support for those in the PGD group. On the other hand, 40% of the PGD group had community support.

The second logistic regression model included the support system (from family, relatives, community and/ or religion), which did not show any significant difference for those without PGD and those with PGD and subthreshold PGD.

## DISCUSSION

The timing of this study was conducted during the height of Malaysian's movement control order (MCO) due to the global pandemic of COVID-19; as the data collection ran from December 2020 till September 2021. A cross-sectional online survey done in China in 2020, showed prevalence of PGD at a high of 37.8% among people bereaved due to COVID-19.[10] Conversely, outside of the pandemic era, the prevalence of PGD was estimated 10% in bereaved adults from a systematic review and meta-analysis.[14]

Surprisingly, despite the pandemic, our data collection showed the prevalence of PGD to be 2.9% and subthreshold PGD was only 4%. Both values were unusually low when compared to studies that were previously conducted before and during the pandemic. There are possible reasons for this, patients under PCU care have distinctive prognosis and death of a loved one is anticipated, unlike a healthy person dying from COVID-19. Being under PCU, an explanation about the prognosis and end of life would have been addressed adequately.

Another explanation would be the Asian culture in Malaysia with three major ethnicities; the Malays, Chinese and Indians. While the Chinese strategies had a strong pragmatic emphasis, the Malay and Indian strategies evolved around a religious/spiritual axis.[23] These findings add knowledge about cross-cultural perceptions regarding death. In our study, support from religion aspect was the second-highest coping mechanism for our bereaved participants.

For the Malays, who were all Muslims, the fate of the person was decided by the Will of Allah whose wishes were decreed in the Quran. The afterlife, as described in the Quran, was keenly anticipated because they believe that their life on Earth is temporary, but their life after death is permanent.23 The Islamic teaching, increased actions of making supplication (doa) for the dead; getting closer to God as they remember the deceased; being patient and accepting (redha)[24] may have alleviated their grieving process. The ethnic specific responses unique to the bereaved Malays were: frequent visits to the graves; the recitation of tahlil or 'Surah Yasseen and kenduri arwah' (i.e. Yasin and feast of spirits in English).[24]

The Chinese view death as a gate, which consciousness departs from one life and begins the journey to a new life called the *Gate of Death*. According to popular belief, the gate between the world of the living and that of the ghosts opens

on the first of the lunar July, and it remains open for the whole lunar month. Buddha taught that on this day, wondrous food offering to Buddha and Sangha, and the merits accrued may save one's parents and a remembrance of them. Furthermore, Buddhist teaching, a way to help ease the grief of separation, is to concentrate one's energies on performing Buddhist practices and acts of merits, and then dedicate the merits to all sentient beings, including our dear ones.[25]

For the Christians, death is the separation of the immortal soul and the mortal body. In other words, when a person dies, their spirit goes back to God, the body returns to dust and the soul of that person no longer exist.

On the other hand, Hindus and Sikhs among the Indians, practices the concepts of *ATMAN* (self or soul), *KARMA* (law of cause and effect), and Reincarnation. They believe that the *ATMAN* is immortal; perceiving death as a passenger to another life, not the end.[23]

What racial and religion of diverse groups teaches, are the impermanence of the physical body and there is life after death. Losing a loved one may seem more bearable knowing that they are not completely gone.

Being part of Asia, Malaysians place a strong emphasis on family connection as the major source of identity and protection against the hardships of life. The family model is an extended on including the immediate family and relatives, and loyalty to the family is expected.[26] The family model is reflected in our study, with most of our bereaved participants (86.3%) having an immediate family supporting them.

PGD has its own known risk factors which are used in complicated bereavement risk assessment tool (CBRAT), bereavement risk index (BRI) and modified bereavement risk index. In a study by Zordan et al. showed that traditional risk factors (serious financial problems, drug or alcohol dependency, cumulative losses, multiple stressful situations, seen mental health professional, medication for mental health problem, family history of mental illness, experienced the death of a parent in childhood, overly controlling parents, experienced childhood abuse or neglect) were not significant in increasing the risk of PGD.[2] Our results were not much different than theirs. To add further, during the COVID-19 pandemic, all economic losses combined across industries, Malaysia suffered a total loss of RM~1-2.4 billion per day during MCO1.0, 2.0 and 3.0.[27] The nosediving economy was the result of more than 100,000 Malaysians having loss of employment.[28] Despite this glaring fact, work-related problems, unemployment and financial issues were not significant risk factors predisposing our participants to PGD.

Increased responsibility as a parent after a spouse passes on was a significant risk factor in PGD in our bereaved participants in Malaysia ($p<0.001$; 95% Confidence Intervals: 2.937, 40.661). Even though immediate family ties and support may be present, it does not relieve the burden of being a single parent. This finding brings awareness and recognition that single parenting is challenging and as a society, we need to find measures to support single parenting families during their bereavement phase.

## LIMITATIONS

There are a number of strengths and limitations pertaining to this study. A thorough demographic background of the bereaved individual; their race, gender, age, occupation and financial background could help us narrow down on how each demographic difference plays a role in bereavement within our society.

The other limiting factor would be the dialogue in which the interview was done. Our local language is the Malay language, and hence, some of the sessions were conducted in our native tongue. The validation of PG-13 questionnaire was in English and not in the Malay language, whether there be any meaning loss behind the translation cannot be excluded.

This study was done in a single centre, hence data interpretation may not represent the whole of Malaysia. Moreover, there is a large difference in number of participants between those with subthreshold PGD (n=7) and PGD (n=5) compared to those without PGD (n=163). Consequently, due to the large disproportion, it may cause false insignificance during statistical calculations.

### Strength

Moving on to the strength of this study, it was able to capture PGD and subthreshold PGD in a cohort of bereaved individuals in PCU Hospital Selayang. Although reaching out to bereaved individuals may be done unofficially in hospices and palliative care unit throughout Malaysia, screening for PGD is not done. This study not only identified PGD and subthreshold PGD, but also narrowed down single parenting after a passing of a spouse to be a significant risk factor for PGD.

In addition to that, the study demonstrates a low prevalence for PGD maybe due to the support from family connection and religious beliefs of our people carrying them through grief. Another strength of this study, was the recruitment process. Compared to other studies where they encountered challenges in recruiting participants, most of our PCU bereaved individuals gave consent to participate in this study. Perhaps telephone calls made the research process more convenient for the participants. Besides, during the pandemic with MCO, most participants were at home and had spare time to answer the questionnaire. This also shows the character of Malaysians being more obliging to government officials.

### Future Research

Future research should aim to develop a screening process and its risk factors predisposing them to PGD specifically for PC in our setting and to focus/fine tune on types management for better support of our local people. Being able to understand the aetiology of PGD may bring us closer to preventing PGD.

## CONCLUSION

Our PGD percentage may not be as high as those of other countries, but nonetheless they exist and their needs are just as important. PGD is a debilitating disease where the person is stuck at intense levels of grief up to the rest of their life. If we are able to identify those with PGD, appropriate, timely referral and management could lead them to a more purposeful life and contribution to society. They require professional assistance and support in integrating life without their loved ones. However, due to a lack of resources, there are no support groups or dedicated counsellors for our bereaved individuals. Perhaps a different approach to our resource scarcity may be done through online counselling/therapy to support our bereaved individuals in suburban and urban areas.

The authors hope that this paper may create an awareness among healthcare clinicians about PGD in our society, for greater access of service to understand them and better public awareness.

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