Prolonged Grief Disorder and Its Relationship With Perceived Social Support and Depression Among University Students

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ABSTRACT

The purpose of the current study was to examine the association between prolonged grief disorder, perceived social support, and severity of depression among Saudi Arabian university students after the death of a significant individual. A cross-sectional design was used to examine descriptive characteristics, correlational relationships, and statistical mean differences between male and female participants on prolonged grief disorder (PGD) scores in a convenience sample of Saudi Arabian college students. The Prolonged Grief Disorder-13 tool, Multidimensional Scale of Perceived Social Support, and the revised Beck Depression Inventory were completed by 226 Saudi Arabian undergraduate students. Students reported moderate perceived social support from family, friends, and significant others. Only 13 (5.8%) individuals reported perceived support from academic staff. Students with the highest PGD scores were the least well-supported and most depressed. The need for academic staff and social workers to provide more social support to grieving students is discussed. [Journal of Psychosocial Nursing and Mental Health Services, xx(x), xx-xx.]
Grief is a regular part of coping with loss, but for some individuals, grief is more serious. Loss is a common human occurrence, but individuals respond to it with varying degrees of grief and bereavement. Individuals grieve in different ways, for different durations, and with symptoms that range from depression to anger to avoidance. Mental health counselors are repeatedly confronted with concerns of grief, but the distinction between normal grief and complicated grief—a term used to include severe and atypical grief, such as prolonged grief disorder (PGD)—is not well established (Howarth, 2011).

**PROLONGED GRIEF DISORDER**

The fifth edition of the Diagnostic and Statistical Manual of Mental Disorders (DSM-5; American Psychiatric Association, 2013) added PGD as an official psychiatric diagnosis, giving individuals experiencing debilitating grief a name for their disorder. PGD affects some individuals more commonly than others. According to an article published in Oncology Nursing Forum, individuals who experience PGD frequently have a positive family history of the disorder, and their first reaction to loss is shock, disbelief, and numbness (National Institutes of Health, 2017).

Evidence from the Netherlands indicates that women experience PGD more frequently than men, although some men have the disorder as well (Newson, Boelen, Hek, Hofman, & Tiemeier, 2011). However, a systematic review from Denmark suggests that caution is needed when comparing studies across countries (Lundorff, Holmgren, Zachariae, Farver-Vestergaard, & O’Connor, 2017). Usually, PGD is diagnosed approximately 6 months after the primary traumatic event, but evidence from the United States indicates that PGD is sometimes not recognized at all (Peng & Renz, 2018). Moreover, Laurie and Niemeyer (2008) revealed that African American individuals are 2.5 times more likely to have the disorder. Research conducted by the Columbia University School of Social Work estimates that approximately 10% of all bereaved individuals develop complicated grief. Although it is not clear exactly what causes persistent grief, the cause of normal grief can most commonly be attributed to the death of a loved one.

A U.S. study found that less than 10% to as many as 20% of bereaved individuals develop PGD. Several risk factors for developing PGD were identified, including a history of prior trauma or loss; a history of mood and anxiety disorders; insecure attachment style; being a caregiver for the deceased individual; a violent cause of the individual’s death, such as suicide; and lack of social support (Jordan & Litz, 2014).

**Prolonged Grief Disorder Among University Students**

In 2013, Varga sought to determine the incidence of grief in graduate students in the United States. The focus was on the effects of grief on the individual, the forms of support that had been pursued, and the risk of PGD. Students (N = 1,575) were invited to complete an online survey relating to grief experiences. Students who had experienced significant loss (e.g., loss of a parent, immediate family member, or close friend) were also invited to respond to the Prolonged Grief Disorder Questionnaire. Approximately 25% of participants had experienced the loss of a significant individual in the previous 24 months. Various grief effects were reported, with emotional effects proving to be most significant. In general, the effects were experienced during the first 6 months following an individual’s death and subsided after this point. The students sought support mostly from family and friends, and they believed this support was of crucial importance.

Considering various grief effects, Walker, Hathcoat, and Noppe (2012) conducted a study to explore the prevalence of bereavement among undergraduate students. The study also explored grief effects on educational and mental health outcomes, along with the role of closeness to the deceased individual. Results showed that motivation and concentration were significantly negatively impacted. Results indicated that the closer students were with the deceased individual, the more academic struggles they encountered due to changes in motivation and concentration.

In addition, Varga, McClam, and Hassane (2015) identified grief experiences among American and Arab female undergraduate students to compare the incidence of grief, the effects of grief, and risk of PGD. In total, 471 students (308 [65.4%] from the United Arab Emirates and 163 [34.6%] from the United States) completed a survey relating to their grief experiences. Researchers found that 181 (38.4%) of 471 students had experienced the loss of a significant individual during the previous 2 years. There were few differences between countries in incidence of PGD, relationship to the deceased individual, and cause of the individual’s death (mostly illness). Various grief effects were reported. American students experienced effects related to relationships, academics, physical well-being, religion/spirituality, and outlook on life more frequently than Arab students. Arab students experienced more loss of sleep and reported emotional and mood elements of grief more frequently than U.S. students. The few cases of PGD (n = 10, 5.52%) were mostly among Arab individuals. The reason for these differences may lie in the relative cultural and religious facets of life in the two countries, with attendant expectations of expressing grief or otherwise.

Moreover, Eckerd, Barnett, and Jett-Dias (2016) compared the severity of grief and its predictors in equivalent groups of college students who reported having experienced the death of an individual (n = 146) or a pet (n = 211) in the previous 2 years. The group that had experienced the death of an individual showed higher grief severity scores. The degree of closeness to the deceased individual was by far the strongest predictor of severity of grief.
in both groups, emphasizing the central importance of this factor in planning grief counseling.

Cupit, Servaty-Seib, Tedrick Parikh, Walker, and Martin (2016) conducted a study among undergraduate college students in the grieving process using mixed methods to observe how students managed the grief process with the challenging demands of college. Study participants were college students attending one of two public rural universities in the Midwest, with a total of 950 students at a regional broad university and a research demanding institution. Quantitative findings revealed closeness to the deceased individual as a key positive predictor of mental health and academic difficulties and positive associations between changes in peer relationships and mental health difficulties. Qualitative findings showed that closeness to the deceased individual was associated with a greater sense of purpose in the college experience after their death, and findings suggested that institutions and their faculty should encourage and exhibit more sensitivity about grief issues.

Furthermore, PGD could affect the decision-making process. Fernández-Alcántara et al. (2016) evaluated group differences in emotional decision-making tasks, assessing and comparing decisions of participants who tend to make decisions under risk and individuals who prefer to decide intuitively. Decisions under risk are defined as those in which the outcome is not known with certainty. When making a decision under risk, individuals can make a list of all possible outcomes and assign probabilities to the various outcomes. An assessment was made of different components of executive function in grief among 38 college students in the University of Granada, Spain who had experienced the death of a loved one. Students were divided into two groups based on the intensity of their symptoms. Considering each participant’s level of education and emotional variables, symptoms of grief predicted a substantial variance in individuals’ performance in the decision-making task.

A review conducted by German researchers (Doering & Eisma, 2016) to establish the context of complicated grief in the DSM-5 and the International Statistical Classification of Diseases and Related Health Problems revealed conflict over the view of complicated grief as a psychiatric disorder. Research on cognitive-behavioral therapy (CBT) for grief concluded that, despite the common practice of prescribing medication for bereaved individuals, the evidence base for the effectiveness of prescribing medications was less than convincing. CBT (whether direct or internet-based) was shown to be more efficacious in treating complicated grief (Hamdan-Mansour, Puskar, & Bandak, 2009).

Depression
Few studies have been conducted to assess PGD and depression. A study in the Netherlands by Boelen, Reijntjes, Djalantik, and Smid (2016) to identify PGD and depression found that participants’ negative attitude toward grief was the sole variable that predicted PGD. Participants (N = 243) had faced the death of a loved one due to several reasons, including suicide (49%), accidents (47.3%), and homicide (3.7%). Latent class analysis was applied to establish three categories of participants: predominantly PGD-class (39.2%), combined PGD/depression-class (35.5%), and resilient-class (25.3%). This analysis could guide new interventions for the relevant subgroups of bereaved individuals.

Support
An Australian study (Bartik, Maple, Edwards, & Kiernan, 2013) showed that the social circle of peers that is central to young adults’ normal lives can become disrupted by the suicide of a friend or another student. The importance of support from friends, significant others, and professors at universities has been reported in previous studies (Lin, Lee, Lin, & Rong, 2014). In a study conducted in China, Lin et al. (2014) reported that any unresolved conflicts facing survivors around age 20 further complicate their grief. Based on their report, Lin et al. (2014) conducted a study to outline approaches of handling grief among university undergraduate students experiencing bereavement. The study was conducted to assess an action plan that would allow students to deliver mutual peer support, increase awareness about bereavement, and prevent suicide contagion (i.e., the increase in suicide among individuals exposed to the suicide of a close relative or friend) among students on campus who had lost a classmate to suicide. Results suggest that support from peers, faculty members, and professionals can have positive effects on grieving students in a school context.

Currently, there are neither accurate statistics nor published research studies available on PGD among university students in the Saudi Arabian population. This lack of data led to the genesis of the current study, which is specifically about the Saudi Arabian population and seeks to gain insight into the country’s status in the growing global concern of PGD. Accordingly, the current study investigated PGD among undergraduate college students at King Saud Bin Abdulaziz University for Health Sciences (KSAU-HS) in Saudi Arabia, examining its correlation with depression and social support.

METHOD
A cross-sectional design was used to examine descriptive characteristics, correlational relationships, and statistical mean differences between male and female participants on PGD scores in a convenience sample of Saudi Arabian college students.

Setting and Participants
The current study was conducted at KSAU-HS in Riyadh, Saudi Arabia. Study participants were college students at KSAU-HS. All undergraduate students were included if they were registered in the second semester of the 2016-2017 academic year, had experienced the death of a significant individual at least 6 months before the
study, and agreed to participate. Students who had graduated and those who had completed their academic requirements but were in the internship year were excluded.

Convenience sampling was used. Using G*power software (Faul, Erdfelder, Buchner, & Lang, 2009), the sample size for correlation analysis was computed for an alpha of 0.05, power of 0.8, and a relatively medium effect size of 0.3. At least 134 participants were needed; therefore, to compensate for anticipated incomplete questionnaires, 250 students were invited to participate.

Ethical Considerations

Written ethical approval was obtained from the ethics committee at the College of Nursing at KSAU-HS as well as King Abdullah International Medical Research Ethics Committee. Researchers ensured confidentiality of the students. Each participant was given an identification code. Moreover, participants were assured of their right to withdraw at any time, and the voluntary nature of participation was emphasized. All questionnaires were stored securely in a locked filing cabinet in a locked room with access restricted to the principal researcher (E.A.-G.). There was a risk of emotional distress associated with the sensitivity of the topic. Participants had the right to decline to answer any questions or even the entire questionnaire.

Researchers ensured confidentiality of the data. Students were asked to sign a consent form before participating to ensure that they understood the study and agreed to participate. Students willing to participate were asked to sign a consent letter and student information sheet to students. Students willing to participate in the study and distributed the invitation letter and student information sheet to students. Students willing to participate were asked to sign a consent form before participating to ensure their agreement. Students were asked to complete the Arabic versions of the questionnaires. Students could submit blank consent forms and question-
naires. Completion of study tools took 20 minutes.

**Data Analysis**

All responses were coded and entered using SPSS version 22. Frequency distribution was used for categorical variables and means with standard deviation for continuous variables. Descriptive analysis was used to describe the research sample and items of the questionnaires. The Pearson correlation coefficient was used to examine the relationship between the variables and selected demographics. Finally, t-tests were used to measure differences in PGD between male and female students.

**RESULTS**

**Demographics**

The mean age of students was 20.8 (SD = 1.43) years, ranging from 17 to 28 years. Ninety-three (41.2%) were male and 133 (58.8%) were female. Most students (n = 215, 95.1%) were single. Mean monthly income of students’ families was 23,200 Saudi riyals. Sixty (26.7%) students were from the nursing school, and 23 (9.7%) were from the College of Science and Health Professions. Mean grade point average (GPA) for students was 3.93 of 5, ranging from 2 to 5. Details about students’ specialties are presented in Table 1.

Most (n = 96, 42.5%) students were in their fourth year of study, 84 (37.2%) were in the third year, 30 (13.3%) were in their second year, 9 (4%) were in their first year, and 7 (3.1%) were in their fifth year. Only 13 (5.8%) students reported receiving support from university academic staff. Twelve (5.4%) students reported that they were employed in a full- or part-time job, and 123 (54.4%) reported engagement in non-academic activities such as voluntary work and hobbies. The relationship of the deceased individual to the students was grandparent (n = 119, 52.7%), friend (n = 26, 11.5%), father (n = 24, 10.6%), uncle or aunt (n = 24, 10.6%), son or daughter (n = 18, 8%), sibling (n = 14, 6.2%), and mother (n = 1, 0.4%). Most participants (n = 162, 71.7%) reported the cause of death to be illness. For 109 (48%) students, the reported duration since death was >36 months. Details of duration of loss are presented in Table 2.

**Prevalence of PGD**

Using a score of 32 as a diagnostic cut-off point for PGD, the prevalence in the current study was 12%.

**Depression**

Many students reported a mild level of depression. The score range was 0 to 51, and the total sample mean score was 11 (SD = 9.62).

**Perceived Social Support**

The mean MSPSS score was 60.41 (SD = 12.3). The family support subscale (mean = 20.88, SD = 4.91) and significant other support subscale (mean = 20.68, SD = 5.0) had the highest means among all perceived social support subscale scores. The friend support subscale was ranked lowest (mean = 18.69, SD = 5.3). Individual items analysis of MSPSS revealed that item 11 (My family is willing to help me make decisions) was the most reported support element. The lowest reported scores were for item 7 (I can count on my friends when things go wrong) and item 8 (I can talk about my problems with my family). More details are presented in Table 3.

**Relationship Between PGD and Demographics**

Pearson correlation was used to examine the relationship between PGD, depression, and social support at p = 0.05. There was a significant positive relationship between PGD and depression (r = 0.45, p = 0.0005). This relationship indicated that students with higher levels of depression experienced higher levels of PGD. Moreover, there was a significant negative relationship between total support score (and all support subscales scores) and total PGD score (r = -0.265, p = 0.0005). This relationship indicated that students with high PGD received less support.

**Relationship Between PGD and Income**

There was a significant negative relationship between PGD and family income. Students with low family income reported high PG-13 scores. However, there was no significant relationship between PGD and age or GPA. Using t-tests, female students had greater total PGD than male students (t = -3.731 [224], p = 0.0005).

**DISCUSSION**

The purpose of the current study was to examine the association between PGD, perceived social support, and depression among Saudi Arabian university students after the death of a significant individual. Evidence of PGD among Saudi Arabian university students could serve as the basis for practical interventions, which
may indicate the significance of PGD. Therefore, the current study was conducted to gain better understanding of PGD among university students in Saudi Arabia. The study may add to the breadth of understanding of problems in the international literature from a Saudi Arabian perspective, as well as prompt more proactive responses to student need in this population.

**Bearing a Double Burden**

Students who reported high PGD scores also experienced the most depression. Researchers cannot conclude a causal relationship, but the double burden on students was clear. This negative impact was aggravated by an inverse relationship between intensity of PGD and availability of support. The complex interplay between grief, depression, and support requires more investigation, but Jordan and Litz (2014) established lack of social support to be a risk factor for PGD, suggesting that it is both a precursor to and a result of disordered grief. Recognizing individuals at greater risk of PGD and depression as a result of their social situation could facilitate proactive intervention.

**Absence of Peer Support**

A surprising finding was that students did not have support from friends when they experienced depression as a result of grief. In other situations, peer support from friends is common when individuals may be reluctant to divulge perceived shameful or embarrassing information to parents. Although investigated in another culture, friends have been found to have a central role in supporting young adults in times of stress or difficulty (Fallon, 2010). For college and university students, it is common for friends to include colleagues in the same course or who share some classes. In a study to investigate college students’ perceptions of providing support to a grieving peer, Tedrick Parikh and Servaty-Seib (2012) discovered that students saw risks to such involvement, yet also felt compelled to provide support. Having previous experience of grief personally was found to be an advantage, but students also indicated the need for a conducive environment—time and a suitable place to talk. These findings suggest that two strategies could be useful to enhance peer support in Saudi Arabian colleges and universities. First, students could receive preparation in peer support to enable them to take on the role of informal supporter when needed, which would provide them transferable skills also useful in other situations of stress or need. In addition, the college environment should be evaluated to ensure that there are times and places for students to offer support.

**Adrift Within the Family**

Many students struggled to talk about their problems with their families, even when they had a family history of PGD, so family members would most likely be sympathetic and under-

### TABLE 3

**ITEM AGREEMENT OF MULTIDIMENSIONAL SCALE OF PERCEIVED SOCIAL SUPPORT (N = 226)**

<table>
<thead>
<tr>
<th>Item</th>
<th>Disagree</th>
<th>Neutral</th>
<th>Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. There is a special person who is around when I am in need.</td>
<td>27 (12)</td>
<td>41 (18.1)</td>
<td>157 (69.5)</td>
</tr>
<tr>
<td>2. There is a special person with whom I can share my joys and sorrows.</td>
<td>23 (10.2)</td>
<td>29 (12.8)</td>
<td>174 (77)</td>
</tr>
<tr>
<td>3. My family really tries to help me.</td>
<td>18 (8)</td>
<td>27 (11.9)</td>
<td>181 (80.1)</td>
</tr>
<tr>
<td>4. I get the emotional help and support I need from my family.</td>
<td>22 (9.7)</td>
<td>34 (15)</td>
<td>169 (74.8)</td>
</tr>
<tr>
<td>5. I have a special person who is a real source of comfort to me.</td>
<td>33 (14.6)</td>
<td>55 (24.3)</td>
<td>138 (61.1)</td>
</tr>
<tr>
<td>6. My friends really try to help me.</td>
<td>19 (8.4)</td>
<td>44 (19.5)</td>
<td>163 (72.1)</td>
</tr>
<tr>
<td>7. I can count on my friends when things go wrong.</td>
<td>59 (26.1)</td>
<td>73 (32.3)</td>
<td>94 (41.6)</td>
</tr>
<tr>
<td>8. I can talk about my problem with my family.</td>
<td>67 (29.6)</td>
<td>54 (23.9)</td>
<td>105 (46.5)</td>
</tr>
<tr>
<td>9. I have friends with whom I can share my joys and sorrows.</td>
<td>25 (11.1)</td>
<td>44 (19.5)</td>
<td>157 (69.5)</td>
</tr>
<tr>
<td>10. There is a special person in my life who cares about my feelings.</td>
<td>27 (11.9)</td>
<td>58 (25.7)</td>
<td>141 (62.4)</td>
</tr>
<tr>
<td>11. My family is willing to help me make decisions.</td>
<td>18 (8)</td>
<td>24 (10.6)</td>
<td>184 (81.4)</td>
</tr>
<tr>
<td>12. I can talk about my problems with my friends.</td>
<td>62 (27.4)</td>
<td>47 (20.8)</td>
<td>117 (51.8)</td>
</tr>
</tbody>
</table>
standing. Indeed, it was reported by most that their families tried to help and provided emotional support. This finding may be linked to findings of Liew and Servaty-Seib (2017) that although communication within a family may lead to overall family satisfaction, it does not exert a positive effect on individuals’ reactions to grief. PGD is often linked to the closeness of the relationship to the deceased individual (Eckerd et al., 2016; Walker et al., 2012). However, family members are likely to differ in perceived closeness to another member of the family regardless of the actual relationship. It is possible that the strength of a bond between a student and a lost relative may be overlooked, and the need for support not recognized. Consequently, an encouraging approach to initial overtures is not adopted. A separate problem seems to exist, however, as students were unable to initiate discussion of their problem. Helping students broach the subject with a family member could be a key contribution of supportive services of colleges and universities, perhaps including mediation to ensure that the student’s family is alerted to the need for support. Providing help for students must be seen in the light of students’ current feelings of lack of support from academic and other staff, so initial work to overcome these feelings is required first.

Access to Existing Academic Support

The finding that support from academic staff was lacking suggests the need for raising awareness in student-facing staff, both academic and administrative, of the existence of PGD and associated depression, recognition of these factors, and ways that support can be offered. It is likely that supportive services, whether pastoral or counseling in nature, are already available, and the role of staff is to identify the need for these services, following up with informal support and signposting to more professional help.

In the current study, students with low family income reported high PGD. More support for such students was considered important. Ensuring this support might involve additional, specific training for relevant members of staff; reconsideration of resources (both infrastructural, such as counseling rooms, and dedicated staff time); requiring action on recognition of warning signs (“red flags”); and a formal route to referral to professional student counseling.

Unclear Picture of Gender Differences

Female students in the current study had higher PGD scores than their male counterparts, but no clear reason for this difference was seen. Given the differences in grief effects between female American and Arab students found by Varga et al. (2015), it may be that cultural issues are at play, particularly in a country such as Saudi Arabia, which is characterized by a male-dominated society. This finding will require additional investigation.

CONCLUSION

The impacts of PGD in students are pervasive and potentially debilitating. If insufficient relief is found through family support, and peer support from friends is also lacking, students experiencing PGD and associated depression seem likely to be bereft of support and therefore prone to continuation of symptoms. Strategies for universities include preparing students to support their peers, providing the context in which this support may be provided, helping students divulge their problem to their family members, alerting staff to the potential existence of a problem, and, ultimately, leading students to find effective support.

REFERENCES


