

Prolonged Grief Disorder among Indian Women Widowed by Communal Violence

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Abstract

Prolonged Grief Disorder is a common and debilitating condition with diagnostic criteria that have only recently been proposed and tested, primarily in the United States. Widows who had lost their husbands in communal riots in 2002 in India were evaluated for Prolonged Grief Disorder (PGD) using validated diagnostic criteria. Of the 110 widows studied, 24 (21.8%) met criteria for PGD, 60 (54.5%) met criteria for major depressive disorder (MDD) and 33 (30.0%) met criteria for posttraumatic stress disorder (PTSD). Phi coefficients revealed some modest overlap between diagnoses; PGD and MDD: $\phi=0.261$; PGD and PTSD: $\phi=0.375$; MDD and PTSD: $\phi=0.398$. A minority (37.3%) of the women did not meet criteria for any of the assessed mental disorders. Self-reported emotional impact of trauma and having another family member injured in the riots were present more frequently among women with PGD compared to women with MDD and PTSD, respectively ($p<0.05$). Compared with widows without PGD, widows with PGD had the highest mean levels of disability and psychiatric distress, including suicidality, with 75% reporting suicidal ideation. Muslim women reported significantly ($p<0.05$) more global distress than Hindu women, indicating a need for future research on cultural and religious influences on widowhood. PGD is a significant problem among Indian widows who survived communal violence.

Keywords: Prolonged grief disorder; Widows; Bereavement; Women's health; Trauma

Introduction

The 2012 death of a female student who was gang-raped in Delhi has broadcast the violence against, as well as the plight of, women in India [1]. The Hindu practice of *sati* [2], the burning of wives on the funeral pyres of their husbands, may be rare today in India, but it is a vestige and reminder of the low status and subjugation of widows in Indian society. The status and treatment of women by Muslims is even worse than by Hindus. As Kristof and Wu Dunn write "Hindu women in India are more autonomous and more likely to be educated than their Muslim women neighbors... of 128 countries rated by the World Economic Forum according to the status of women, 10 of the bottom 12 were majority Muslim [3]." The mental health of widows in India and correlates of their distress is a topic of considerable concern.

To date there is only one Indian study on the topic of grief. Singh et al. studied the parents of 22 children who drowned in the Nangal boat tragedy in September 1982 [4]. One year following the Nangal boat disaster, a significant proportion of bereaved parents reported intense emotional and behavioral reactions to the loss: sadness of mood (73%), belief in fate (75%), idealization of the deceased (59%), preoccupation with the deceased (59%), increased religiosity (43%), overt weeping (39%), blaming others and hostility (38%) and retention of the deceased's possessions (34%). Although the study represents an important first attempt at understanding responses to bereavement in an Indian sample, there is much more that needs to be learned about grief among Indian surviving family members, particularly widows. The current study is an attempt to fill this informational void.

Considerable advances have been made in the study of grief since the publication of the Singh et al. study in 1982. The reliability and validity of a bereavement syndrome termed prolonged grief disorder (PGD), sometimes referred to as "complicated grief" (CG), "complicated grief disorder" (CGD), and "traumatic grief" (TG) has been confirmed in many published studies [5-11], and PGD is increasingly recognized as

a clinically significant problem among survivors of violence [8,12]. The symptoms of PGD include: yearning for the deceased, bitterness about the death, a sense of emotional numbness, detachment, mistrust, an inability to accept the death, difficulty moving on after the death, feeling empty and like the future holds no meaning without the deceased, and feeling on edge and jumpy since the death. Research has shown these symptoms are distinct from other psychiatric disorders with respect to clinical phenomenology, etiology/correlates, outcomes, clinical course, and response to treatment [6,13-26].

For example, it has been demonstrated that the symptoms of PGD are distinct from symptoms of Major Depressive Disorder (MDD), Generalized Anxiety Disorder (GAD), and Posttraumatic Stress Disorder (PTSD) [13-19]. Findings indicate that the symptoms of PGD form a cohesive cluster of symptoms that is distinct from depression and anxiety symptom clusters. Research has also shown that the risk factors associated with PGD set it apart from other psychiatric disorders. Some examples of distinctive risk factors for PGD but not MDD include: security-increasing relationships to the deceased [20], an absence of the depression biomarker of shortened Rapid Eye Movement (REM) latency [21], and a preference for lifestyle regularity [22]. A functional magnetic resonance imaging (fMRI) study by O'Connor et al. [27] found that only patients with symptoms of PGD, not MDD, showed reward-related neural activity in the nucleus accumbens in response to reminders of the deceased.

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Research demonstrates how the symptoms of PGD predict a wide variety of adverse outcomes independent of the effects of depression [5,13,15,23,24,28-30]. Bereaved subjects with PGD are at heightened risk of serious adverse outcomes such as suicidality, high blood pressure, increased smoking and alcohol consumption as well as physical and social impairment and distress, controlling for confounding factors including competing risks [5-7,13,15,23,24,26,28-30]. Interpersonal Psychotherapy (IPT) and tricyclic antidepressants (TCAs) have proven effective for reducing bereavement-related depressive symptoms, whereas they have not proven highly effective for ameliorating the symptoms of PGD [25]. Given the distinctive symptoms, risk factors, clinical correlates, outcomes and response to treatment, the available evidence suggests that PGD forms a new and distinct clinical entity.

PGD has been shown to occur in 9% to 35% of bereaved individuals. Raphael and Minkov reviewed the literature and concluded that in the general population; approximately 9% of the bereaved are likely to have persistent distressing grief reactions [31]. Lichtenthal et al. found 16% of bereaved caregivers of deceased cancer patients met criteria for PGD at 6 months post-loss [26]. Among young adults who lost their fathers during the war in Kosovo, 34.6% met criteria for PGD [7]. Prigerson et al. in a study of psychiatric outpatients in Karachi, Pakistan who had a significant other die within a year of the assessment following a period of rampant and sporadic violence; found that 34% of those surveyed met criteria for PGD [12].

The availability of a set of well-established criteria for diagnosing PGD provides an opportunity to apply these same criteria to the case of widows of the riots in 2002 in Gujarat, India. In February and March of 2002, a wave of communal violence erupted over the western Indian state of Gujarat. The inciting event took place in the town of Godhra where Muslim residents set fire to train carriages carrying Hindu activists. More than fifty passengers were killed. For almost 2 months following the fire, a string of retaliatory riots took place across the state, covering 21 cities and 68 provinces. The rioters were mostly from Hindu and Muslim homes. Businesses and places of worship were destroyed. The reported death toll varied widely between government sources and human rights groups. Estimates ranged from 1044 to 2000. Also, an estimated 140,000 were believed to have become refugees [32]. Meanwhile, for the over 900 women who lost their husbands in the Hindu-Muslim riots, conditions were complicated by the social taboos in place against widows [33]. Widows are a generally disenfranchised group in India, and this is particularly true for Muslim widows living in the primarily Hindu state of Gujarat. The Gujarat riots were marked by particularly disturbing and demeaning experiences involving the sexual subjugation of women. In many cases, women were systematically raped and extensively tortured by men known to them, from their own locality. After the riots, many women relocated to areas that were predominantly Muslim for safety, regardless of job opportunities [34].

Apart from the cost in human lives, the overwhelming loss of faith and security experienced by the Muslim community is perhaps the most debilitating result of the riots. Relief camps across the state housed the majority of Muslims made homeless in the riots. Many of these camp-residents had to leave their jobs behind, or were afraid to leave the camp to search for employment. Among women who were widowed, many lost their children, communities and livelihood. The losses suffered by these women were multi-layered and cannot be extrapolated from bereavement data gathered in any other context. This study therefore provides a unique, if perhaps incomplete, perspective on the psychological burden of victims of ethnic violence, which will be useful in providing counseling and support for women confronting similar hardships.

The aims of the present study are: 1) to determine the prevalence of PGD among riot affected widows in India and the demographic characteristics associated with PGD and 2) to determine other correlates of PGD in riot affected widows, including associated psychiatric comorbidities.

Methods

Participants

Participants in the study were 110 women from the four districts of Gujarat state, India: Ahmedabad, Vadodara, Anand, and Mehsana. The assessments for this study occurred in February and March 2004, two years after the communal violence took place. All of the women participating had lost their husbands in riots and were being assisted with rehabilitation by Self-Employed Women's Association (SEWA). SEWA is an internationally recognized non-governmental organization with 30,000 members active in 11 districts of Gujarat. The mission of the SEWA is to provide women with assistance in work, health insurance, health care, and child care in order to provide resources to promote financial, nutritional, and family support. The SEWA is owned, managed, and utilized by its members, all of whom are women. Interviews were conducted in Gujarati/Hindi. They took place in NGO SEWA locations including community halls and NGO centers and generally lasted 45 minutes. All women provided oral informed consent to be interviewed for this study.

Materials

Inventory of complicated grief-revised short form (ICG-R) [31]: A 17-item version of the ICG-R included symptoms that were applied toward a diagnosis of PGD. These symptoms included: preoccupation with thoughts of the deceased, yearning for the deceased, disbelief and inability to accept the death, bitterness or anger about the death, and avoidance of reminders of the death. These are the core symptoms of what is now referred to as PGD [6]. This measure has proven highly reliable (Cronbach's $\alpha > 0.90$ and test-retest reliability coefficient = 0.80) and valid, but this study is its first use in an Indian population [6].

Using the available data, the diagnosis of PGD was made by requiring the respondent to meet psychometrically validated criteria [6]. These criteria include loss of significant other, a positive response on separation distress, a positive response on at least 5 of 9 cognitive, emotional, and behavioral symptoms, duration of symptoms for at least 6 months post loss, and clinically significant impairment in social, occupational, or other important areas of functioning. A positive response is classified as a score of 4 or higher on a 5-point scale.

Impact of event scale revised (IES-R): This 22-item scale assesses the emotional impact of a traumatic event on a person by measuring intrusive thoughts, avoidance and hyper arousal [35,36]. Respondents answer items (e.g. "I found myself acting or feeling like I was back at that time") related to the frequency of each symptom experienced on a scale of 1 (not at all) to 4 (extremely). The IES-R has been found to have high internal consistency (Cronbach's $\alpha = 0.96$) [37] and has been validated in Tamil versions with Indian adolescents [38].

Posttraumatic diagnostic scale (PDS): This 17 item-screening instrument measures three symptom clusters of PTSD: re-experiencing of trauma (4 items), avoidance (7 items) and hyper arousal (6 items) [39]. The respondents record the frequency of manifestations, the items are rated on a 4-point scale: (0=not at all or only once, 1=once per week or less/once in a while, 2=two to four times per week/half of the time, 3=five or more times per week/almost always). Although the original instrument considered any severity of symptoms, we wanted

to disregard clinically minor manifestations. Only those symptoms with at least moderate severity were considered as present. For the diagnosis of PTSD one of the 4 re-experiencing symptoms plus 3 of the 7 avoidance symptoms and 2 of the 6 hyper-arousal symptoms had to be present.

Self-reporting questionnaire (SRQ): This questionnaire is one of the most widely used measures of psychiatric disturbance (cognitive function, anxiety, depression, and somatic symptoms), particularly in developing countries [40]. It has 20 items, each of which is scored 0 or 1. Items include “do you feel unhappy?” and “Do you cry more than usual?” A score of 1 indicates that the symptom was present during the last month while a score of 0 indicates that the symptom was absent. A total score of more than 4 indicates psychiatric morbidity. This measure has been used in Indian patients [41].

The world health organization disability assessment scale (WHODAS II): This 12-item self reported questionnaire was used to assess the respondent’s health and associated difficulties in doing work in the past month [42]. The instrument is cross-culturally developed, applicable across the spectrum of cultural and educational backgrounds, and has been validated in low income countries including India [43]. Wolf et al. tested the validity of the WHODAS II and found Cronbach’s α coefficients that ranged from 0.61 to 0.97 [44].

The primary care evaluation of mental disorders (PRIME-MD) patient health questionnaire (PHQ-9): The questionnaire consists of 9 items that corresponding to 9 criteria for MDD as per DSM IV [45]. The questions refer to the time frame of last 2 weeks and are rated on 4-point scale (0=Not At All, 1=Frequently, 2=More than half of the days, 3=Almost Daily). MDD is diagnosed when person rates at least 5 symptoms with a rating of 2 or higher, with sadness of mood or lack of pleasure as essential criteria. The PHQ-9 version of the PRIME-MD is a self-administered questionnaire that is reliably correlated with mental health professionals’ diagnoses (“for the diagnosis of any 1 or more PHQ disorder, $\kappa=0.65$; overall accuracy, 85%; sensitivity, 75%; specificity, 90%”) in American [45] and Indian populations [46].

Semi-structured interviews: In the semi-structured interviews various factors related to trauma were explored, including: the death or injury of a family member, assault on family member, injury to self, assault on self, damage to house or property, damage to workplace, separation from family members living in relief camps, and watching the mutilation of dead bodies.

Procedure

One consultant psychiatrist and six resident physicians conducted this study. Residents were trained by one of the coauthors (GV) on the administration of study instruments and conducting interviews. They were allowed to interview subjects only after subjects had granted oral consent to be interviewed and the interviewer had demonstrated that they had >80% agreement with the consulting psychiatrist (GV) on 5 ratings of PGD.

Diagnosis	N=110, N (%)
No Psychiatric Disorder	41 (37.3)
Psychiatric Disorder Present	69 (62.7)
PGD	24 (21.8)
MDD	60 (54.5)
PTSD	33 (30.0)
Panic Disorder	1 (0.9)

Note. PGD=Prolonged Grief Disorder; MDD=Major Depressive Disorder; PTSD=Post Traumatic Stress Syndrome

Table 1. Prevalence of Psychiatric Disorders

Statistical analysis

Means, standard deviations (SDs), percentages and chi-square tests were used to determine prevalence of psychiatric disorders. Associations between participant variables and PGD were assessed in terms of odds ratios (ORs) estimated using logistic regression. T-tests were used to determine differences by religious affiliation. All analyses were performed using the IBM SPSS Statistics 21.

Results

Of the 110 women interviewed, 79 (71.8%) were Muslim and the remaining 31 (28.2%) were Hindus. The age of the participants ranged from 20-65 years with mean age of 34.2 years. Seventy-two percent belonged to low-income groups (monthly income less than Rupees 1000). Twenty-six (23.6%) had lived in a relief camp.

Prevalence of psychiatric disorders

Of the 110 women interviewed, 60 (54.5%) met criteria for Major Depressive Disorder (MDD). Thirty-three (30%) of the women met criteria for Post-Traumatic Stress Disorder (PTSD) and one woman (0.9%) met criteria for Panic Disorder. PGD was present in 24 (21.8%) of the 110 women. Of these 24 women with PGD, 19 (79.2%) had co-morbid MDD. Comorbid PTSD was also present in 15 (62.5%) of the women with PGD. Phi coefficients revealed some modest overlap between diagnoses; PGD and MDD: $\phi=0.261$; PGD and PTSD: $\phi=0.375$; MDD and PTSD: $\phi=0.398$ (Table 1).

Prolonged grief disorder

As shown in Table 2, the majority of patients with PGD experienced most of the symptoms of PGD with the exception of difficulty accepting the loss and avoidance of reminders of the loss. A Cronbach’s $\alpha=0.97$ indicated a high degree of internal consistency among the items.

Women with PGD had higher scores than those who did not meet criteria ($p<.05$) on the Self Report Questionnaire, the Impact of Events Scale, symptoms of Post Traumatic Stress Disorder, and the Disability Assessment Scale. Prevalence of suicidal ideation was also higher in PGD subjects (present in 75% of women with PGD) than other subjects (present in 41.8% of women without PGD), $X^2(1, N=110)=8.25, p=.004$ (Table 3).

When women with PGD were compared to women with MDD (excluding those with co-morbid PGD), the women with PGD had greater total scores of emotional impact of trauma ($M=46.29, SD=15.42$) than the women with MDD ($M=36.43, SD=18.43$), $t(69)=2.25, p=0.028$. When women with PGD were compared to women with PTSD (excluding those with co-morbid PGD), there were higher rates of having another family member injured in the women with PGD, $X^2(1, N=42)=4.26, p=0.039$.

A multiple logistic regression model for PGD was used including suicidal ideation, the Self Report Questionnaire, the Disability Assessment Scale, symptoms of Post Traumatic Stress Disorder and controlling for education, monthly income, and age ($N=110$). This model found that the Disability Assessment Scale ($OR=1.12, p=0.013$) and Post Traumatic Stress Disorder ($OR=1.12, p=0.004$) remained related to PGD (Table 4).

Relationships with religion

When looking at religion, 79 (71.8%) of the women identified as being Muslim and 31 (28.2%) as Hindu. Overall, Muslim women had significantly ($p<0.01$) higher scores on the Self Report Questionnaire, Impact of Events Scale, Disability Assessment Scale and Suicidality

than Hindu women (Table 5).

Muslim women made significantly less money per month (in Rupees), (M=735.44, SD=748.21) than Hindu women, (M=1147.74, SD=1164.16), $t(108)=-2.31$, $p=0.023$. Muslim women were also more

Manifestations of Prolonged Grief Disorder	PGD Present, N=24N (%)
Separation distress	24 (100.0)
Confusion about one's life role	16 (66.7)
Difficulty accepting the loss	5 (20.8)
Avoidance of reminders of the loss	7 (29.2)
Inability to trust others/ loneliness	24 (100.0)
Bitterness or anger related to the loss	20 (83.3)
Difficulty moving on	21 (87.5)
Numbness	17 (70.0)
Feeling life is unfulfilling	24 (100.0)
Stunned, dazed, or shocked by loss	16 (66.7)

Table 2. Manifestations of Prolonged Grief Disorder

	PGD Present (N = 24) M (SD)	PGD Not Present (N = 86) M (SD)	t	df	p
SRQ	15.58 (3.35)	12.28 (5.58) ^b	3.62	62.6	.001
DAS	38.21 (7.87)	28.71 (10.66)	4.81	49.1	.000
IES	46.29 (15.42)	29.48 (17.68) ^c	4.23	108	.000
PTSD	32.42 (7.48)	18.70 (12.89)	6.55	66.5	.000
Suicidal Ideation ^a	.75 (.44)	.42 (.50)	3.16	40.6	.003

Note. SRQ=Self Report Questionnaire Score; DAS= Disability Assessment Scale; IES= Impact of Events Scale; PTSD=Posttraumatic Stress Disorder

a. 1=present, 0= not present

b. N=85

c. N=81

Table 3. Differences between widows with and without PGD on the SRQ, DAS, IES, PTSD, and Suicidal Ideation

	OR	95% CI	p
SRQ	0.01	(0.00 to 1.03)	0.052
DAS	1.12	(1.00 to 1.22)	0.013
PTSD	1.12	(1.04 to 1.20)	0.004
Suicidal Ideation	2.34	(0.63 to 8.73)	0.206
Education	1.01	(0.85 to 1.21)	0.904
Monthly Income	1.00	(1.00 to 1.00)	0.483
Age	0.95	(0.88 to 1.03)	0.179

Note. SRQ=Self Report Questionnaire Score; DAS=Disability Assessment Scale; IES=Impact of Events Scale; PTSD=Post Traumatic Stress Disorder

Table 4. Logistic regression predicting PGD from participant characteristics (N=110)

	Muslim Widows (N = 79) M (SD)	Hindu Widows (N = 31) M (SD)	t	df	p
SRQ	13.67 (5.49) ^a	11.35 (4.61)	2.07	107	0.041
DAS	32.13 (11.21)	27.35 (9.07)	2.11	108	0.037
IES	35.95 (18.99)	26.00 (15.31)	2.60	108	0.011
Suicidal Ideation ^b	0.51 (0.50)	0.45 (0.51)	2.07	107	0.041

Note. SRQ Self Report Questionnaire Score; DAS=Disability Assessment Scale; IES=Impact of Events Scale

a. N=78

b. 1=present, 0=not present

Table 5. Differences between Muslim and Hindu widows with and on the SRQ, DAS, IES, and Suicidal Ideation

likely to have lost other family members and to have had damage to their homes, property and workplace than Hindu women (Table 6). Of the 24 women who met criteria for PGD, 16 (66.7%) were Muslim and 6 (33.3%) were Hindu. There were no significant differences in rates of PGD by religion, however Muslim widows with PGD had significantly higher scores on the Self Report Questionnaire (M=16.88, SD=2.85) than Hindu women with PGD (M=13.00, SD=2.83), $t(22)=3.15$,

$p=0.005$. Muslim widows were not found to differ from Hindu widows in rates of MDD or PTSD.

Discussion

Prevalence of PGD

In this study among riot-affected widows in India, PGD was found to have a prevalence of 21.8% an average of 2 years after the death. This rate is higher than the rate of 16% PGD among family survivors of deceased cancer patients in the US at only 6 months post-loss. A study from the Indian subcontinent found a PGD rate of 34% among 151 bereaved relatives after violent deaths [12], however, this study from Pakistan had subjects with multiple losses, drawn from a smaller psychiatric clinic sample only 1 year post-loss as compared to the present study's 2 year time frame. A U.S. community sample of recently widowed American women found lower rates of PGD, 10.7%, 4 months post-loss and 8.2%, 9 months post-loss [47].

One reason why the American widows may have had lower rates of PGD is that their losses were not necessarily due to violent deaths. These 2-3 times higher rates of PGD in individuals bereaved by violent deaths (in India and Pakistan) is consistent with Kristensen et al. claim that those bereaved by sudden and violent deaths are at a higher risk for PGD [8]. These studies all highlight the prevalence of PGD in the bereaved population and the need for further understanding of the syndrome.

Women with PGD were also more likely than women with MDD or PTSD to report greater emotional impact of the trauma and to have had another family member injured, respectively. Both of these findings are consistent with our conceptualization of PGD, in contrast to MDD or PTSD, as an attachment disorder. PGD is an emotional response to traumatic loss and at its core a function of the severing of a close interpersonal bond. This is distinct from MDD or PTSD.

Psychological distress and PGD

In this study, there was a significant difference found in the mean score of the Self-Report Questionnaire of widows with PGD compared to individuals without PGD. Subjects with other psychiatric disorders also had higher mean Self-Report Questionnaire scores but those scores were comparable to those of subjects with PGD. The Disability Assessment Score (DAS), Impact of Events Scale (IES), and Posttraumatic Stress Disorder scores for widows with PGD were also higher than those of the group without PGD. Other research has also found PGD to be associated with lower social functioning, lower mental health scores and lower energy scores [23,24,30]. Bereaved individuals with elevated PGD symptoms have significantly more health impairments and greater disability than bereaved individuals with lower levels of PGD symptoms [24,30]. Because of the health consequences associated with psychiatric morbidity and PGD, it is

	Muslim (N = 79) N (%)	Hindu (N = 31) N (%)	X ²	df	p
Death of other Relative	16 (20.3)	0 (0.0)	7.35	1	0.007
Residence Damage	17 (21.5)	0 (0.0)	7.89	1	0.005
Property Damage	18 (22.8)	1 (3.2)	5.96	1	0.015
Workplace Damage	13 (16.5)	0 (0.0)	5.79	1	0.016

Table 6. Differences between Muslim and Hindu widows with exposure to traumatic events

important that PGD be identified and treated in order to help prevent health issues from arising later on and placing additional burdens on an already overburdened healthcare system.

As already discussed regarding trauma factors and PGD, the mean Impact of Events Scale score was higher in those of PGD compared to those without PGD. Grief and bereavement are also known to increase the risk of other psychiatric complications such as depressive symptoms, major depressive disorders [48] and anxiety related symptoms and disorders [49]. A study by Piper et al. [50] compared psychiatric outpatients with severe PGD and those who had not experienced loss of another person, finding the former to have significantly higher levels of depression, anxiety and general symptomatic distress. The prevalence of both MDD and PGD shown in the widows studied raises concerns about the welfare of a population after such violence or disaster occurs. Further concern arises from the findings that PGD also appears to be a risk factor for suicidal ideation [51]. Although the prevalence was not significantly greater in women with PGD than women with MDD (PGD: 75%, MDD: 66.6%), this high prevalence of suicidal ideation again points to the need for large-scale intervention and assistance to be provided in cases of sudden and violent death.

Finally, these results suggest that although PGD and other mental disorders were not significantly elevated among Muslim compared with Hindu widows, the Muslim widows did report significantly more global distress. This is consistent with the greater subjugation of widows in Muslim culture compared with Hindu culture. Future research is needed to examine the cultural and religious influences on PGD.

Conclusions

This study was the first Indian study of Prolonged Grief Disorder (PGD) among riot affected individuals. We not only studied PGD but also its association with PTSD and MDD, psychological distress, impact of traumatic event, and any caused disability. The results of the present study stress the importance of identifying PGD symptoms in bereaved individuals and the need to investigate further treatment and support of those suffering from PGD.

We acknowledge limitations to our study. The first limitation is that we conducted this study 2 years after the riots and recall bias may complicate accurate recall of the events that took place during the riot. However, this elapsed time should not affect the scoring of the PGD-13, as the questions ask about their current feelings. The participants used in the present study were all violently bereaved widows and comparison with other types of bereavement could shed more light on the nature of PGD. Also, given that all subjects were women, gender differences could not be studied. These data are also limited in generalizability by cultural differences. All of the women came from similar cultural backgrounds that may have influenced rates of PGD. They were also all assisted by the SEWA program which may be a source of bias when compared to women who were not. In future research it would be beneficial to study possible culture and gender differences in PGD and to investigate the variations between those bereaved by traumatic losses compared to those bereaved by non-traumatic losses to further determine the generalizability of these novel findings.

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