

The Predictive Roles of Gender and Grief Intensity in Negative Cognition

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Grief intensity may have profound impacts on their cognitive processes. Existing literature has largely focused on the emotional and behavioural consequences of grief, while the cognitive implications have been relatively unexplored, particularly in terms of potential gender differences. The present study aims to study the predictive role of gender differences and intensity of grief experienced in negative cognition. The cross-sectional study involved 100 participants (age range- 20-35 years), equally divided between 50 males and 50 females, from the urban middle-class. The participants completed the Brief Grief Scale and Grief Cognition Questionnaire. The collected data was analysed statistically using regression analysis. The intensity of grief experienced emerged as a significant predictor of negative cognitive patterns, with this relationship remaining consistent irrespective of the individuals' gender. Factors such as social support, coping strategies and cultural influences may be studied further in this respect.

Keywords: grief, negative cognition, gender, regression

Grief is an emotional response that includes a pessimistic approach towards life, negative feelings and thoughts. It is a universal human experience, yet its manifestations are highly individualistic, varying greatly from person to person (Harris, 2022). Grief response may be caused by several factors like death of loved ones, break-ups, divorces, drastic life changes, etc. (Edwards et al., 2023). The psychological as well as physiological symptoms of grief (distress, confusion, anxiety and recurrent thoughts of the past) can severely disrupt an individual's normal routines and overall health (Cholbi, 2022). If these symptoms persist, they may indicate complicated grief, which requires professional intervention to prevent further mental health issues. Despite the significant impact of grief on the life of an individual, very few studies have been conducted in the Indian context regarding grief. This gap in research is alarming since the relative risk of death among widows and widowers is 22% higher compared to when both spouses are alive

(Shneer, 2020). Understanding grief's complexities and providing adequate support and intervention are essential for helping individuals navigate through this challenging emotional landscape.

Grief not only causes emotional damage but has serious consequences on a person cognitive functioning. Cognition refers to higher mental processes that affect our thoughts, perceptions and judgments, thinking, decision making, problem solving, etc. The relationship between grief and cognition is ambiguous and very few studies have addressed the relation between the two. In a study by Perez et al. (2018) it was found that people with prolonged grief shows decline in global cognitive functioning, and below average performance on Mini Mental State examination and World learning test. Similar finding was found by Hall et al. (2014) who investigated relationship between complicated grief and cognitive functioning. Another important research done in this area is on prairie voles, who are monogamous like

humans. When one of the prairie vole mates dies, a part of their brain known as nucleus accumbens, (an area responsible for reward, pleasure and reinforcement learning) erodes and its gene expression is changed, which might give us some idea about how adaptation process occurs in grief (Sadino et al., 2023).

One important concept introduced in grief studies is of anticipatory grief. Anticipatory grief is experienced when the people around a patient with terminal illness are aware that they have limited time to spend with their patient. The relationship between higher anticipatory grief and impaired problem solving was found in primary caregivers of the patients (Fowler, 2013). Other important issues of grief are its medical implications, evidences of which are relatively scarce. However, differences in rumination, inflammation and cortisol dysregulation are important criteria in determining the physical aspects of bereavement (O'Connor, 2019).

Processing and experience of trauma can differ based on the gender of an individual. It is influenced by various factors including socialization, gender roles, culture, etc. Research findings report that men face societal pressure to conform to traditional masculine norms. This may lead to the suppression of vulnerable emotions such as grief to avoid stigma (Kiaos, 2024). The griefs experienced by females are higher in emotional, cognitive and behavioural aspects than men (Olaleye & Varga, 2022). Loneliness and symptoms of depression are evident more in men as compared to women (Yoon & Kim 2018). This might be because of their inability to show their emotions and ask for support. In a patriarchal setup, it is tough for men to be vulnerable in front of the society and thus their grief remains unaddressed or hidden.

There is also a wide difference between men and women with regards to coping with grief. According to the dual processing model,

women indulge in loss-oriented coping strategy, such as talking about the departed one, keeping a grief diary, whereas, men indulge in restoration-oriented strategies, which are action based, such as figuring out new roles and responsibilities (Stroebe & Schut, 2010). When we consider care-giving, generally, women are primary caregivers in a family where someone is bedridden or severely ill. As a result, their physical and mental health is likely to get more negatively affected than men. However, the few researches also show no difference on the basis of gender of caregivers. Today, breaking of societal norms and empowerment of women has resulted in questioning the dynamics of care-giving only as a role of a woman (Sharma et al., 2016). Keeping this in mind, there is need for researches to know how grief affects males and females, its psychosocial processing and the cultural differences in grieving.

This research explores the relationship between grief intensity and negative cognition among bereaved males and females. Grieving individuals often experience cognitive disturbances such as difficulties in concentration, memory lapses and decision-making challenges. Investigating these cognitive effects can provide insight into the psychological impact of grief, contributing to more comprehensive mental health support. Previous research suggests that men and women may experience and express grief differently. Exploring these gender differences in cognitive processes can help tailor interventions to better meet the unique needs of each gender, improving the efficacy of grief counselling and support services. Raising awareness about the cognitive effects of grief can help destigmatize the struggles faced by bereaved individuals, encouraging more compassionate and understanding support from their social networks.

Method

Participants

A sample of 100 middle-class adults, aged between 20 and 35, was selected with the help of simple random sampling from the urban areas of Uttar Pradesh and Bihar. This group consisted of 50 females and 50 males. The study was conducted from December, 2023 to March, 2024.

Design

The study followed correlational research design. Level of grief and gender were taken as predictor variable and negative cognition was taken as criterion variable.

Tools

- Brief grief questionnaire, developed by Shear et al. (2006), was used to measure the grief intensity of the participants. The Brief Grief Questionnaire comprises 5 items, each offering three alternatives ranging from “not at all” to “a lot”, covering five dimensions of grief: feeling distant, avoiding doing things, experiencing bothersome thoughts, grief still interfering and trouble accepting death. The value of Cronbach’s alpha suggest good internal consistency ($r = 0.82$).
- Grief cognition questionnaire, developed by Boelen and Lensvelt-Mulders (2005), was used to measure negative thought content for the people experiencing grief. It is a 38-item scale comprising nine dimensions: self, world, life, future, self-blame, others, appropriateness of grief, cherish grief and threatening interpretation of grief. It is 6-point scale (ranging from strongly disagree to strongly agree) with high value Cronbach’s alpha ($r = 0.96$).

Ethical Considerations

Ethical Approval was obtained from the Research Review Committee, Vasant Kanya Mahavidyalaya, Banaras Hindu University, Varanasi, India. Informed consent was obtained from all participants to participate in the research and also for publication of the data obtained.

Results

The collected data was analysed using SPSS-21 and descriptive statistics were obtained to find the mean scores and standard deviation of grief and cognition (see Table 1).

Table 1. Descriptive analysis of scores on the measures of grief and cognition

Variables	Mean (N=100)	Standard Deviation
Cognition	74.3500	37.88029
Grief	5.9000	2.64957

Further, multiple regression was carried out to predict determinants of negative cognition using two independent variables i.e., level of grief and gender. The assumptions of multiple regression were tested. The data value of Durbin-Watson statistic was 1.805, which confirms independence of residuals. The assumption of linear relationship was fulfilled. There was homoscedasticity, as assessed by visual inspection of a plot of studentized residuals versus unstandardized predicted values. The dataset revealed no presence of multicollinearity or significant outliers. The residuals (errors) were approximately normally distributed. Furthermore, a detailed summary of the regression model is presented in Table 2.

Table 2. Model summary of multiple regression

R	R square	Adjusted R Square	Standard Error of estimate	F	df	Sig. of F
.516*	.266	.251	32.776	17.618	2,97	0.001

*Predictors: (Constant), gender, level of grief

On examining the Table 2 it was found that, there was significant positive correlation between level of grief and negative cognitions. But the correlation between

gender and the level of grief and also gender and the negative cognitions was not found to be significant. An elaborated regression model is depicted in Table 3.

Table 3. Multiple regression predicting negative cognition

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	30.316	8.371		3.621	.001
Level of grief	7.339	1.254	.513	5.854	.001
Gender	1.470	6.610	.019	.222	.825

The model can be expressed as the following regression equation.

$$\text{Negative cognition} = B_0 + B_1 \times \text{Level of grief}$$

Where, B_0 is the intercept (Constant) and B_1 is the slope coefficient of the level of grief.

Therefore, the regression equation can also be expressed as follows:

$$\text{Negative cognition} = 30.316 + 7.339 \times \text{Level of grief}$$

The final model indicates that level of grief is one dominant predictor of the negative cognition, while gender has no significant role in this model. It is important to remember that the sample is limited to adults residing in cities of Uttar Pradesh and Bihar. Hence the obtained results cannot be generalised.

Discussion

Grief intensity in adults is inherently linked to negative cognition, which plays a crucial role in the development and persistence of emotional disturbances. The study reveals a positive relationship between intensity of grief and negative cognition. Therefore, when

the intensity of grief increases, there is an increase in the negative cognition and vice versa. Grief not only causes psychological toll but also results in significant deterioration in global cognitive functioning as well as attention, perception, memory, problem solving and reasoning. (Hoffmann et al., 2024; Fernández-Alcántara et al., 2016). Hall et al. (2014) also support the view that low levels of cognitive functioning can be attributed to complicated grief.

Various studies suggest that negative cognition varies across gender (Nachane et al., 2019; Perveen et al., 2023). Females are wired physiological in such a way that they are more sensitive and emotional in comparison to their counterparts (Goffaux et al., 2011). It is also noteworthy that the society expects females to be more expressive in and emotional situation (Ohla & Lundström, 2013). This is the result of social learning which they acquire from the direct social contact like family as well as the society and culture where they are born and brought up (Brody, 2010).

However, this study did not find significant gender difference in negative cognition as per regression model. That is both males and females experience same level of negative cognition due to grief. Societal changes causing cultural shifts in gender roles have created an overlap in the roles and behaviours between genders, reducing the differences in how men and women experience and express grief. This might be because of gender being a subjective, culturally different and complex construct. Such finding might be also because men are not able to express their grief or pain openly (Kiaos, 2024). Matthews et al. (2016) found greater levels of depression or loneliness symptoms in males rather than females. This might be because of the presence of perceived social support provided to the women are higher than men. Studies are indicative that, there is difference between males and females on the basis of trauma processing (Min & Song, 2022). Lastly, the sample used in the study might have characteristics that minimize gender differences, such as a specific age group, cultural background, or shared experiences that make their grief responses more similar.

Conclusion

The paper reveals that high grief led to impaired cognitive processes, i.e., negative cognitions. Since research on grief is often neglected, the real implications of grief are still not known accurately. This study, however, puts one thing into focus: if one has experienced a traumatic event, it is likely that your cognitive processes will work in the fear of likelihood of another traumatic event. Additionally it is important to acknowledge that despite the role of gender was not found to be significant; there is need for future researches to substantiate this finding.

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