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## How Religious and Spiritual Beliefs Explain Prolonged Grief Disorder Symptoms

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*Keywords:* prolonged grief, complicated grief, bereavement, religion, spirituality

### Abstract

This study investigated the importance of religious and spiritual beliefs in daily life in explaining Prolonged Grief Disorder (PGD) symptomatology. Participants were 588 bereaved adults who completed a questionnaire. The importance of spiritual beliefs in daily life explained a small to medium, significant 3% of variance in PGD symptoms, but religious beliefs in daily life did not. Individuals who placed moderate importance on spiritual beliefs in their daily life may experience more intense grief.

Keywords: Prolonged Grief Disorder, spirituality, religion, beliefs

### How Religious and Spiritual Beliefs Explain Prolonged Grief Disorder Symptoms

Grief following bereavement usually diminishes over time, although in some cases the grieving process can interfere with normal functioning (Horowitz et al., 1997). In these circumstances, grief is often referred to as complicated or prolonged, and these terms are increasingly recognized in diagnostic nosology (American Psychological Association, 2013; Maercker & Lalor, 2012). Prolonged Grief Disorder (PGD) is characterized by separation distress, an extended period of intense and relentless grief lasting more than six months, and disturbances in emotions, cognitions, and behaviors that are associated with impaired functioning (Prigerson et al., 2009). The prevalence of PGD in samples of bereaved people ranges from 1.8% to 9.8% (Aoun et al., 2015; He et al., 2014; Kersting, Braehler, Glaesmer, & Wagner, 2011; Nielsen et al., 2017; Schaal, Richter, & Elbert, 2014).

Prolonged grief can have detrimental effects on an individual's physical and mental health and can predict suicide, heart problems, cancer, high blood pressure, social withdrawal, and self-neglect (Breen, Hall, & Bryant, 2017; Latham & Prigerson, 2004; Prigerson et al., 1997). As a result of these health outcomes, much research has been dedicated to identifying predictors of prolonged grief (Lobb et al., 2010). The main predictors that have been studied include age, gender, culture, relationship to the deceased, place of death, time since the death, cause of death, and perceived social support (Fujisawa et al., 2010; Goldsmith, Morrison, Vanderwerker, & Prigerson, 2008; Kersting et al., 2011; Lobb et al., 2010). Some studies have also explored the role of religion or spirituality in explaining prolonged grief (Schaal et al., 2014; Schaal, Jacob, Dusingizemungu, & Elbert, 2010).

Although related, religion and spirituality are different constructs (Zinnbauer et al., 1997). Religion is an organized system of beliefs and behaviors associated with the worship of a higher being/s, such as a god (Koenig, 2009), whereas spirituality is an

individual's personal search for meaning in life and connections to the world around them (Puchalski et al., 2009). Religion and spirituality can shape an individual's worldview and therefore can have a role in meaning-making following bereavement (Davis & Nolen-Hoeksema, 2001). The ability to find meaning in the death can lead to better psychological adjustment, whereas a lack of finding meaning is linked to the development of prolonged grief (Davis, Wortman, Lehman, & Silver, 2000; Keesee, Currier, & Neimeyer, 2008).

Studies have examined several different aspects of religion and spirituality and their relation to grief outcomes. One such aspect is religious affiliation, which has differential associations with PGD. For instance, among Chinese participants, those who identified as Buddhist reported more PGD symptoms than those who reported no religious affiliation (He et al., 2014). However, in a sample of African-Americans who were predominantly Catholic or Protestant, religious affiliation was not a significant predictor of PGD (Goldsmith et al., 2008). Similarly conflicting results have been reported concerning whether engagement in religious and spiritual activities predicts prolonged grief. In a German sample, involvement in religious activities was not a significant predictor of PGD (Schaal et al., 2014). However, in a sample of bereaved American dementia caregivers, there was a negative correlation between religious attendance and prolonged grief symptomatology (Herbert, Dang, & Schulz, 2007). Among bereaved mothers and fathers, compared to religious activities like praying, spiritual activities such as appreciating nature correlated with fewer grief symptoms and less depression (Hawthorne, Youngblut, & Brooten, 2016). These conflicting findings may be explained by the differences in prolonged grief measures and by the differences in the samples such as culture and cause of death (Hawthorne et al., 2016; Herbert et al., 2007; Schaal et al., 2014).

Studies have also investigated the role of religious and spiritual beliefs in predicting PGD. A reexamination of data from two major US studies showed that using religious

beliefs to cope with bereavement did not significantly predict PGD, although African American participants were significantly more likely to use religious coping than were European Americans (Goldsmith et al., 2008). However, in a German community sample, participants who had higher levels of religious beliefs experienced more PGD symptoms (Schaal et al., 2014). In Rwandan orphans and widows, the degree of importance placed upon religious or spiritual beliefs in everyday life significantly predicted PGD (Schaal et al., 2010). However, it is not clear whether it was the importance of religious or spiritual beliefs that predicted PGD, or a combination of both, because both constructs were combined within a single-item measure (Schaal et al., 2010).

Thus, the role of the importance of religion and spirituality in predicting PGD remains obscured. Therefore, it is necessary to measure religious and spiritual beliefs separately to examine whether the degree of importance placed on each can account for unique variance in PGD. The aim of the current study was to determine whether the degree of importance placed on religious and spiritual beliefs in an individual's daily life—as separate constructs—have a role in explaining PGD. We hypothesized that the degree of importance placed on both religious and spiritual beliefs in an individual's daily life would each individually explain a significant proportion of unique variance in participants' PGD symptomatology, after controlling for potential covariates (age of deceased and bereaved, gender of deceased and bereaved, culture of bereaved, religious affiliation, perceived support, relationship to deceased, bereavement period, cause of death, and place of death).

## Method

### *Research Design*

This study was part of a larger cross-sectional, correlational questionnaire survey of bereavement experiences in the community, which so far has yielded studies of a population-based approach to bereavement care (Aoun et al., 2015), bereaved former

caregivers' advice for others in their situation (Breen, Aoun, et al., 2017), bereavement support relevant to palliative care (Aoun, Rumbold, Howting, Bolleter, & Breen, 2017), and meanings made following bereavement (Breen, Karangoda, Kane, Howting, & Aoun, 2017). The current study's focus on the role of religious and spiritual beliefs in explaining PGD symptomatology has not been reported previously.

### *Participants*

Participants were 678 bereaved clients (response rate = 21.3%) of four Australian funeral providers in two Australian states—Western Australia and Victoria. Inclusion criteria were that participants were adults, bereaved between 6 and 24 months prior, and able to read, write, and understand English. The time period aimed to balance the minimum timeframe for a PGD diagnosis (six months) with participants' ability to remember information accurately.

A missing values analysis revealed that 6.5% of the data were missing overall, but Little's MCAR test indicated that these data were missing completely at random,  $\chi^2(8) = 10.45, p = .235$ . We used expectation maximization to impute missing ordinal and interval values and deleted 90 cases because more than 10% of their data were missing, resulting in a final sample size of 588 (418 women, 170 men).

Participants' ages ranged from 20 to 93 years ( $M = 61.94$  years,  $SD = 12.24$ ). The mean bereavement period was 14.33 months ( $SD = 5.97$ ) and ranged from 1 to 36 months (31 people indicated having been bereaved for a period of less than six months and 16 indicated having been bereaved for a period of more than 24 months). The age of the deceased person (282 women, 304 men) ranged from 0 to 103 years ( $M = 74.98$  years,  $SD = 18.83$ ); six losses were in the perinatal period, and one each was 2 years and 9 years of age. The prevalence of PGD in this sample was 7.7% with the total PG-13 scores ranging from

11 to 55 ( $M = 22.33$ ,  $SD = 10.34$ ). Additional participant characteristics are displayed in Table 1.

### *Materials*

The 82-item questionnaire was developed for the larger study (Aoun et al., 2015) and pilot-tested on a sample of bereaved individuals to ensure acceptable length and language (Aoun, Breen, Rumbold, & Howting, 2014). The current study is based on the questions concerning the demographic characteristics of the deceased and bereaved persons, the support received from a variety of sources, importance of religion and spirituality in daily life, and PGD symptomatology.

In contrast to studies combining religious and spiritual beliefs (e.g., Schaal et al., 2010), we asked one question for each construct: ‘In general, how important are religious beliefs in your day-to-day life?’ and ‘In general, how important are spiritual beliefs in your day-to-day life?’. Participants responded to both items using a 4-point Likert scale from ‘very important’ (1) to ‘not at all important’ (4).

PGD symptomatology was measured using the PG-13 (Prigerson et al., 2009), which comprises 13 items about behavior, emotions, cognitions, and impairment in functioning experienced during a bereavement period of longer than six months. Most items are on a 5-point scale (1 = not at all to 5 = several times a day or overwhelmingly); two items require yes/no responses, and possible scores are 11-55. The cut-off score for PGD is 36 or higher and the responses for the yes/no items must also be ‘yes’. The PG-13 is a unidimensional and reliable scale with a Cronbach’s alpha of 0.84 (Prigerson et al., 2009; Schaal et al., 2014) and its convergent, discriminant, and predictive validity has been demonstrated in previous samples (Prigerson et al., 2009; Sealey, Breen, O’Connor, & Aoun, 2015). In the current study, the PG-13 had a Cronbach’s alpha of 0.94, which is very reliable.

### *Procedure*

Ethics approval was granted by the Curtin University Human Research Ethics Committee (approval number HR57/2012). We sent 3,190 study packages, comprising an invitation letter, information sheet to ensure informed consent, questionnaire, comprehensive list of local and national support services, and a reply-paid envelope to the funeral providers. Funeral directors addressed the envelopes and posted them to clients meeting the inclusion criteria. Those clients who wanted to participate completed the questionnaire and then posted it to the university.

There were normality, linearity, and homoscedasticity violations for all interval variables; consequently, Kendall's tau-b coefficients were interpreted for these correlations. Due to assumption violations, a series of Generalized Linear Mixed Models (GLMM), run through SPSS's GENLINMIXED procedure, were conducted to identify covariates and test the hypotheses. GLMM is a special type of regression that allows for violations in normality and homogeneity of variance because of its maximum likelihood procedure and robust statistics option that produce results in ANOVA and regression formats.

### Results

Comparisons between the deleted and retained participants revealed a small significant difference in the mean age of bereaved person,  $t(666) = 2.45$ ,  $p = .014$ , 95% CI [0.70, 6.31],  $d = 0.29$ , with those in the deleted group ( $M = 65.45$ ,  $SD = 11.57$ ) being older than the retained sample ( $M = 61.94$ ,  $SD = 12.26$ ). There were no other differences between the deleted and retained participants. Religious and spiritual beliefs were moderately positively correlated ( $\tau = .66$ ,  $p < .001$ ) and dealt with separately in subsequent analyses. Correlations between all variables are shown in Table 2.



We identified four covariates that explained a significant proportion of variance in total PG-13 scores. Relationship to the deceased was significant,  $F(6, 394) = 4.07$ ,  $p = .001$ ,  $\eta_p^2 = .06$ , with the deaths of a wife/husband/partner or mother/father yielding higher PG-13 scores than other relationships. Perceived support was significant,  $F(5, 394) = 6.62$ ,  $p = .000$ ,  $\eta_p^2 = .08$ , with participants who received as much support as they wanted having lower PG-13 scores than those who received support but not as much as they wanted and those who did not receive help. Place of death was significant,  $F(4, 394) = 2.75$ ,  $p = .028$ ,  $\eta_p^2 = .03$ , with home and hospital deaths showing higher PG-13 scores than nursing home deaths. Finally, age of the deceased was significant,  $F(1, 394) = 12.78$ ,  $p = .000$ ,  $\eta_p^2 = .03$ , with deaths of younger people associated with higher PG-13 scores. Gender of the bereaved, culture of bereaved, and gender of deceased were not statistically significant.

After controlling for religious beliefs and the covariates, the degree of importance placed on spiritual beliefs in daily life explained a small to medium, significant 3% of variance in total PG-13 scores,  $F(3, 394) = 3.46$ ,  $p = .017$ ,  $\eta_p^2 = .03$ . A small, non-significant 1% of variance in total PG-13 scores could be explained by the degree of importance placed on religious beliefs in daily life,  $F(3, 394) = 0.71$ ,  $p = .546$ ,  $\eta_p^2 = .01$ . The results indicated that a curvilinear relationship existed between total PG-13 scores and the degree of importance placed on spiritual beliefs. Figure 1 demonstrates the relationship between level of grief and importance of beliefs and in particular the curvilinear relationship with spiritual beliefs. Pairwise contrasts explaining the main effect for spiritual beliefs are shown in Table 3. The total PG-13 score means and standard deviations for each degree of importance placed on spiritual beliefs are as follows: very important ( $M = 21.64$ ,  $SD = 2.01$ ), quite important ( $M = 25.02$ ,  $SE = 2.31$ ), somewhat important ( $M = 26.05$ ,  $SE = 2.03$ ), and not at all important ( $M = 23.77$ ,  $SE = 2.01$ ).

## Discussion

Among these Australian adults, the degree of importance placed on spiritual beliefs in daily life explained a small to medium, significant 3% of variance in total PG-13 scores, while the degree of importance placed on religious beliefs in daily life was not significant. The results provide support that the roles of the importance of religion and spirituality are empirically distinct when it comes to explaining PGD symptomatology and suggest that individuals who place moderate importance on spiritual beliefs in their daily life may experience more intense grief than those for whom spiritual beliefs are highly or not at all important in their daily lives.

The current study's results reflect those of Hawthorne et al. (2016), who reported that when coping with bereavement, spiritual activities were more strongly correlated with fewer grief symptoms and less depression, than religious activities. However, the current study's results differ from those of Schaal et al. (2010, 2014) perhaps because Schaal used a single-item measure that combined the importance of religion and spirituality rather than items measuring the constructs separately, as we have done here. Religions typically have a set of predetermined beliefs that an individual adopts whereas spirituality may involve individuals constructing their own beliefs (Koenig, 2009). Thus, individuals may find they can relate their spiritual beliefs to bereavement due to the personal nature of these beliefs. It may be that it is more difficult to apply religious beliefs in this context because they are less idiosyncratic.

Interestingly, there was no difference in PGD symptomatology between participants who considered spiritual beliefs to be very important or not at all important. Perhaps participants whose spiritual beliefs are very important to them were able to reconcile their bereavement with their beliefs, whereas participants who considered spiritual beliefs to be not at all important may have been unlikely to have these beliefs challenged by bereavement. However, individuals who placed moderate importance on spiritual beliefs in

their daily life may be at a greater risk of developing PGD. For moderately spiritual participants, their bereavement might have raised unanswered questions regarding these beliefs. It is these unanswered questions that may be the catalyst for prolonged grief symptoms, which be ameliorated by a search for meaning in the wake of their loss (Burke & Neimeyer, 2016; Park, 2010). Thus, the relationship between the importance of spiritual beliefs in daily life and PGD symptomatology could be mediated by meaning-making processes.

An individual's worldview can be based on religious and spiritual beliefs and may consequently be central to meaning-making processes after bereavement (Davis & Nolen-Hoeksema, 2001). Individual are able to find meaning in the death when their existing worldview is consistent with the death; if there is an inconsistency, they can feel distressed (Gillies & Neimeyer, 2006). Previous research has demonstrated that individuals who find meaning show better psychological adjustment following bereavement (Davis et al., 2000). However, prolonged grief is associated with a lack of finding meaning in the death (Breen, Karangoda, et al., 2017; Keese et al., 2008). During meaning-making, individuals who considered religion or spirituality to be of high importance were those who found consistency between their worldview and the death (Steffen & Coyle, 2011). Steffen and Coyle also found that bereavement can provoke an individual to question their beliefs which can lead to them experiencing discrepancies between their worldview and the death.

Our findings indicate a curvilinear relationship between the importance of spiritual beliefs in daily life and the intensity of grief. A similar, curvilinear relationship has been found between associations of grief with both post-traumatic growth (Currier, Holland, & Neimeyer, 2012) and meanings made following bereavement (Breen, Karangoda et al., 2017). These two studies and the present data suggest that moderate symptoms of grief may be optimal for stimulating greater growth, including spiritual growth, and meaning,

suggesting that considerable—although not overwhelming—distress may be the catalyst for adaptive meaning-making. It is important to note that the importance placed on spiritual beliefs in daily life explained only a small amount of variance in PGD symptomatology, and therefore other factors are likely to be more predictive of grief complications (Fujisawa et al., 2010; Goldsmith et al., 2008; Kersting et al., 2011; Lobb et al., 2010).

The current study's results have important practical implications. The results suggest that individuals who consider spiritual beliefs to be quite or somewhat important in their daily life may benefit from spiritual support so that individuals who are experiencing a spiritual struggle might find meaning in the death. Interventions that encourage meaning-making, such as visualization, therapeutic writing, and narrative retelling, may also be particularly helpful in assisting individuals to incorporate their bereavement into their life story, helping them to find meaning (Neimeyer, Burke, Mackay, & Van Dyke Stringer, 2010).

We did not provide definitions of religious and spiritual beliefs in the questionnaire so we do not know how participants interpreted these constructs. Further studies would need to define religious and spiritual beliefs to ensure consistency between participants' and researchers' interpretations and between studies. However, the results demonstrate that the constructs have different meanings to the participants. The sample was mostly Christian and, although this may limit the generalizability of the results, the 2011 census indicated that Christianity was the most common religious affiliation in Australia (Australian Bureau of Statistics, 2013), and in a proportion similar to our sample. More women than men responded, but this is in line with most mortality follow back surveys (Calanzani, Higginson, Koffman, & Gomes, 2016) and bereavement research in general (Breen & O'Connor, 2007). Additionally, the participants' bereavement period ranged from 1 to 36 months, rather than the intended 6 to 24 months. Although it is possible that

the funeral providers distributed a small number of study packages to clients who were outside the inclusion criteria, these data are also likely to be artefacts of naturalistic research where a very small number of participants experienced more than one bereavement in the preceding months and years, and therefore still met the original inclusion criteria.

Future research should look at replicating this study using participants who are affiliated to a variety of religions and within different countries. It is also not known whether participants' spiritual beliefs were questioned as a result of bereavement and if they had difficulty finding meaning in the death. Future studies could examine this process longitudinally to understand further the role of spiritual beliefs in PGD development. This relationship could be explored using the Inventory of Complicated Spiritual Grief, a new and validated measure of assessing the extent to which spiritual ways of experiencing and understanding life may be called into question in the wake of loss (Burke & Neimeyer, 2016).

This study is the first to measure the degree of importance placed on religious and spiritual beliefs in daily life in explaining PGD symptomatology. In treating spiritual and religious beliefs separately, this study addressed a notable limitation of previous research. While the degree of importance placed on spiritual beliefs in daily life accounted for a significant proportion of unique variance in PGD symptomatology, the degree of importance placed on religious beliefs did not. A curvilinear relationship existed between the different degrees of importance placed on spiritual beliefs. Therefore, the results suggest that the degree to which spiritual beliefs are important to an individual has a role in explaining PGD symptomatology.

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Table 1

*Characteristics of the Participants*

<i>Characteristics</i>	<i>N</i>	<i>%</i>
Religious affiliation		
Christian	448	76.3
Buddhist	2	0.3
Other	5	0.9
No religion	132	22.5
Importance of spiritual beliefs		
Very important	139	23.6
Quite important	114	19.4
Somewhat important	189	32.1
Not at all important	146	24.8
Importance of religious beliefs		
Very important	104	17.7
Quite important	98	16.7
Somewhat important	183	31.1
Not at all important	203	34.5
Perceived support		
Enough support	366	64.1
Some support but not enough	47	8.2
Not enough support, tried to get more	15	2.6
Not enough support, did not try to get more	89	15.6
Did not need support	38	6.7
Other	16	2.8
Culture of bereaved		
Australian	420	71.9
Other English speaking	116	19.9
Non-English speaking	48	8.2
Relationship to deceased		
Wife/husband/partner	216	36.7
Mother/father	43	7.3
Sister/brother	21	3.6
Daughter/son	266	45.2
Other relative	28	4.8
Friend	11	1.9
Other	3	0.5
Cause of death		
Terminal/life-limiting illness	356	61.4
Not terminal/life-limiting illness	224	38.6

Place of death		
Home	77	17.5
Hospital	173	39.2
Hospice/palliative care unit	47	10.7
Nursing home	139	31.5
Other	5	1.1

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Table 2

*Cramer's V and Kendall's Tau-b Correlations between Variables*

<i>Variable</i>	<i>1</i>	<i>2</i>	<i>3</i>	<i>4</i>	<i>5</i>	<i>6</i>	<i>7</i>	<i>8</i>	<i>9</i>	<i>10</i>	<i>11</i>	<i>12</i>	<i>13</i>	<i>14</i>
<b>1. Gender of bereaved</b>	----													
<b>2. Age of bereaved</b>	.36	----												
<b>3. Culture</b>	.01	.33	----											
<b>4. Religious affiliation</b>	.08	.39***	.18**	----										
<b>5. Bereavement period</b>	.26	(.04)	.22	.35***	----									
<b>6. Relationship to deceased</b>	.14	.44***	.10	.14*	.20	----								
<b>7. Perceived support</b>	.14*	.36*	.09	.13*	.25	.13*	----							
<b>8. Age of deceased</b>	.33	(.21***)	.37	.62***	(-.01)	.56***	.43***	----						
<b>9. Gender of deceased</b>	.35***	.40**	.00	.05	.22	.37***	.12	.49***	----					
<b>10. Spiritual beliefs</b>	.19***	(-.08**)	.07	.26***	(-.01)	.10	.10	(-.03)	.10	----				
<b>11. Religious beliefs</b>	.10	(-.20***)	.12*	.35***	(-.03)	.12	.11	(-.07*)	.12	(.66***)	----			
<b>12. Total PG-13 score</b>	.31	(-.01)	.33**	.35***	(-.05)	.32***	.38***	(-.35***)	.35**	(-.02)	(-.02)	----		
<b>13. Place of death</b>	.13	.41**	.09	.16**	.25	.22***	.12	.53***	.26***	.10	.06	.40***	----	
<b>14. Cause of death</b>	.01	.33	.05	.05	.25	.23***	.08	.48***	.08	.09	.04	.24	.15*	----

*Note.* Kendall's tau-b coefficients are in parentheses.

\*  $p < .05$ ; \*\*  $p < .01$ ; \*\*\*  $p < .001$ .

Table 3

*Pairwise Contrasts for the Degree of Importance of Spiritual Beliefs (N = 588,  $\alpha = .05$ ,  $df = 394$ )*

Pairwise contrasts	CE	SE	<i>t</i>	<i>p</i>	CI	<i>d</i>
Very important – quite important	-3.38	1.47	-2.31	.022	[-6.27, -0.50]	0.34
Very important – somewhat important	-4.41	1.50	-2.95	.003	[-7.35, -1.47]	0.43
Very important – not at all important	-2.13	1.48	-1.44	.151	[-5.05, 0.78]	0.21
Quite important – somewhat important	-1.03	1.35	-0.76	.447	[-3.68, 1.62]	0.10
Quite important – not at all important	1.25	1.41	0.89	.375	[-1.52, 4.02]	0.12
Somewhat important – not at all important	2.28	1.15	1.98	.048	[0.02, 4.53]	0.22

*Note.* CE = contrast estimate.

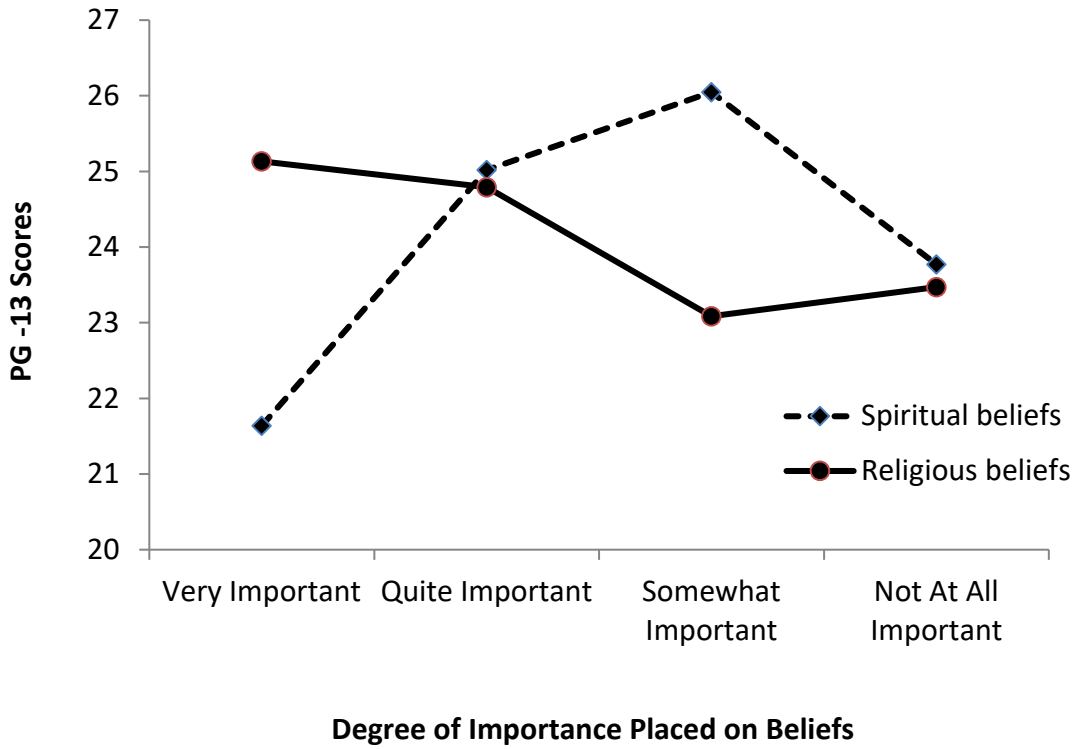


Figure 1. PGD symptoms according to each degree of importance placed on religious and spiritual beliefs in daily life.