Moderating Effect of Partner Support on the Association Between Grief and Posttraumatic Growth Among Women with a History of Abortion

Myeong-sook YOON, Nam-hee KIM, Ji-hye KIM and Hae-rim LEE*
*Corresponding author

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Abstract. The purpose of this study was to examine the relationship between Grief and Posttraumatic Growth among Women with a History of Abortion, to explore the moderating effects of partner support on those relationship and to suggest practical implications for mental health social work. Data for this study were collected through the use of a survey instrument completed by 161 women who experienced abortion, 29-49 age group. Collected data were analysed by moderated multiple regression. The findings of this study were as follows: First, It showed that induced abortion 50.3%, natural abortion 41.6%, induced and natural abortion 8.1%. there is a significant negative association between grief experience and posttraumatic growth. Second, the partner support had moderating effect on the relationship between Grief and Posttraumatic Growth. Based on these findings, the research discussion reinforced the importance of grief therapy and partner-assisted interpersonal psychotherapy and implications for mental health social work practitioners were discussed.

Introduction

Loss of a child is one of the most devastating and traumatic experience for parents which will last for a lifetime. Women who experience abortion exhibit similar normative and pathological grief reactions comparable to that of parents who lost their child(Broen et al., 2005). Abortion has been found to be associated with negative psychological consequences including depression and anxiety disorders(Charles et al., 2008; Lok et al., 2010), posttraumatic stress disorder(Bronen et al., 2004; Engelhard et al., 2001; Schwertfeger an Sherffler, 2009; Wing et al., 2001), and substance abuse (Dingle et al., 2008). However, positive growth after experiencing a significant loss in their life has been documented in the grief and loss literature(Calhoun, Tedeschi, Cann, & Hanks; 2010; Engelkemeyer & Marwit, 2008; Znoj, 2006). While it is widely examined in some areas, posttraumatic growth following abortion has not been extensively studied.

Psychological consequences of abortion is an area of research that is yet to be comprehensively investigated in Korea (Choi, 2003; Chung et al., 2009). Moreover, to the best of our knowledge, no known studies have examined the posttraumatic growth associated with the bereavement of abortion in Korea. Thus, this study seeks examine how grief experience of women with a history of abortion is associated posttraumatic growth in Korea, and how this association changes based on the level of perceived support from their partners.

Literature Review

Grief Experience of Women after Abortion

Grief generally refers to a normative reaction to a loss of a loved one, which involves intensive emotions and prolonged distress (Brier, 2008). Abortion is considered to be an ambiguous loss, and is rarely legitimized or acknowledged as a real loss of a child within the society (Cacciatore, Defrain, & Jones, 2008; Lang, Fleiszer, Duhamel, Sword, Gilbert, & Corsini, 2011). As a result, parents who experience abortion are often disenfranchised from the normative bereavement process (Lang et al., 2011).
The psychological consequences of abortion have been investigated separately by the type of abortion. Spontaneous abortion is considered as an unexpected and sudden event, which is accompanied by shock and disbelief (Adolfsson, Larsson, Wijma & Berterö, 2004; Chung et al., 2009). On the other hand, psychological consequences of induced abortion have been equivocal (Charles, Polis, Sridhara, & Blum, 2008). Others report that women experience intense and acute grief (Kanchanapusit, Thitadilok, & Singhakan, 2009), heightened risk of mental illness (Bellieni & Buonocore, 2013; Fergusson, Horwood, & Boden, 2008) and posttraumatic stress disorder (PTSD; Rousseau, Brulfer, Séjourné, Goutaudier & Chabrol, 2011; Rue, Coleman, Rue & Reardon, 2004) after induced abortion. Studies suggest that confounding factors associated with abortion and psychological outcomes include age at first abortion, number of abortion experience (Steinberg & Finer, 2011; Toffol, Kopen, & Partonen, 2013), length of time after the abortion, and length of gestation (Brier, 2008). In addition, marital status (Conway & Russell, 2000), history of mental illness (Rowlands & Lee, 2010), and level of education (Engelhard et al., 2006) have also been identified as confounding factors.

**Posttraumatic Growth after Abortion**

Traumatic experiences such as losing a loved one causes major distress to the extent that one’s assumption, beliefs, and understanding of the world are fundamentally challenged (Tedeschi & Calhoun, 2004). This period of hardship has also been identified as an opportunity for individual growth. Posttraumatic growth can be defined as “subjectively perceived positive changes in the aftermath of a trauma, including dimensions of detecting personal strength, changes in attitudes and philosophy towards life, and novel ways of relating to other people, appreciation of life and spiritual changes” (p. 107, Büchi et al., 2007).

Several studies have examined the link between bereavement and posttraumatic growth (Calhoun et al., 2010; Engelkemeyer & Marwit, 2008; Hogan & Schmidt, 2002; Znoj, 2006). Grief was found to be associated with personal growth, and intrusivity, avoidance, and social support were found to mediate the relationship between grief and personal growth. These findings are consistent with Korean literature that report coping strategy, positive rumination, ego resiliency, and social support as factors associated with posttraumatic growth in other areas (Kim & Seo, 2011; Lee, 2013; Shin & Chung, 2012).

**The Level of Mourning and Partner Support**

Social support has been identified as a key component that links the association between grief and posttraumatic growth (Hogan & Schmidt, 2002; Tedeschi & Calhoun, 2009; Znoj, 2006). When the bereft openly and honestly talks about their grief with others in a supportive environment, the supportive others, such as family, partner, and spouse, may help the bereft by assisting positive reconstruction of the traumatic event and the changes that have occurred as a result, offer new insights, and alleviate emotional distress (Büchi et al., 2009). Several studies have reported the positive effect of partner support on the bereavement process of women after pregnancy loss (Büchi et al., 2009; Cacciatore, Schnebly, & Froen, 2009; Conway & Russell, 2000; Kagami et al., 2012).

In respect to other areas, the importance of partner support as a protective factor for postpartum depression has been highlighted (Dennis & Ross, 2006; Gremigni et al., 2011; McMahon et al., 2005; Morinaga & Yamauchi, 2003; Webster et al., 2000). Thus, the aim of this study is to examine the moderating effect of partner support on the relationship between grief and posttraumatic growth.

**Research Methods**

**Participants and Procedure**

A total of 161 women who had abortions in the past participated in the present study. The basic demographic and abortion-related data are summarized in Table 1. Their age ranged from 29 to 49 years ($M = 40.37$, $SD = 6.13$). The majority of women were married ($n = 140$ (87.8%)). More than half
of the women (53.1%) had attended junior college or higher. The majority, 58.1% of all participants, had two children. In terms of religious support, 54 participants (33.8%) responded that they received a considerable level of religious support, forming the majority of the group. Monthly household income ranged between 1 million and 15 million won (M = 425.06, SD = 199.71). For the abortion-related data, induced abortion was the most frequent type of abortion, with 81 (50.3%) of the participants having undergone that procedure. The average gestational age at the time of abortion was 6.65 weeks (SD = 3.85), and the average length of time since the abortion was 10.34 years (SD = 4.81).

Measuring Tools

Posttraumatic Growth. Posttraumatic growth (PTG) was measured using the 16-item Korean-Posttraumatic Growth Inventory (K-PTGI). K-PTGI was translated into Korean by Song et al. (2009) from the PTGI, originally developed by Tedeschi and Calhoun (1996). The K-PTGI is divided into several subscales including changes in self-perception, deepened interpersonal relationships, discovery of new possibilities, and heightened interest in spiritual and religious life. The scale ranged from 0 points (no change perceived) to 5 points (a high amount of change perceived), where higher marks indicated a higher level of PTG. Cronbach’s α coefficient was calculated to be .877.

Grief. For the estimation of grief, we modified the scale that was used by Cha (2012), who also modified the Texas Inventory of Grief (TIG; Faschingbauer et al., 1977). The inventory used by Cha (2012) consisted of seven questions, rated on a 5-point Likert scale. The KMO test produced a value of .751, which was considered relatively good for factor analyses. Each of the two factors that estimated the level of grief had a total explanatory power of 64.99%. Cronbach’s α coefficient for all of the questions was calculated to be .755.

Partner Support. The scale developed by I. S. Lee (2002) was adopted to gauge the level of partner support in the present study. Comprising 12 questions rated on a 4-point Likert scale, the tool estimated psychological support, interpersonal support, and informational support. With response options ranged from 0 to 3 points representing “I do not agree” and “I strongly agree,” respectively. A higher level of partner support was implied by a higher score. Cronbach’s α coefficient was .933.

Analysis Method

Descriptive statistical analyses were performed to measure the general characteristics of the participants, followed by a correlation analysis to explore the relationships between the main variables. We then conducted hierarchical regression analyses to examine the effects of grief, partner support, and the interaction effect on posttraumatic growth.

Results

The descriptive data of the main variables are given in Table 1. The mean of grief was 25.21 (SD = 4.76) ranging between 11 and 35 points, and the mean of partner support was 20.20 (SD = 8.18) ranging between 0 and 36 points. The mean of PTG, ranging between 7 and 70 points, was 43.96 (SD = 11.53).

Table 2 shows the result of the hierarchical regression analysis performed to test for the mediating effect of partner support on grief after abortion and PTG. The outcome showed that the explanatory power on PTG was 22%, with marital status (β = -.172), level of religious support (β = .305), number of abortions (β = .225), length of time after abortion (β = .234), and gestational age at the time of abortion (β = -.274), all having a significant effect on PTG. We then added grief and partner support in our second analysis; the explanatory power was measured at 40.4%, a statistically significant increase of 18% from the preceding step. The outcome revealed that marital status (β = -.237), level of religious support (β = .219), number of abortions (β = .242), length of time after abortion (β = .196), gestational age at the time of abortion (β = -.245), grieving (β = .152), and partner support (β =
.413) had a significant effect on PTG. When the interaction terms of grief and partner support were additionally included, the total explanatory power was found to be 42.7%, a significant increase by 2.3% from the preceding step. Marital status (β = -.226), level of religious support (β = .244), number of abortions (β = .244), length of time after abortion (β = .189), gestational age at the time of abortion (β = -.246), grieving (β = .168), and partner support (β = .415) were all found to have a significant effect on PTG. The interaction terms of grief and partner support were also estimated to have a statistically significant impact on PTG, suggesting that partner support has a mediating effect between grief and PTG.

Table 1. Descriptive data on study measures.

<table>
<thead>
<tr>
<th>Variable</th>
<th>M</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Grief</td>
<td>25.21</td>
<td>4.76</td>
</tr>
<tr>
<td>Partner support</td>
<td>20.20</td>
<td>8.18</td>
</tr>
<tr>
<td>PTG</td>
<td>43.96</td>
<td>11.53</td>
</tr>
</tbody>
</table>

Table 2. Hierarchical regression analysis for the moderating effect of partner support.

<table>
<thead>
<tr>
<th>Variable</th>
<th>Model 1</th>
<th></th>
<th>Model 2</th>
<th></th>
<th>Model 3</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>B</td>
<td>SE</td>
<td>B</td>
<td>SE</td>
<td>B</td>
<td>SE</td>
</tr>
<tr>
<td>Age</td>
<td>-.148</td>
<td>.167</td>
<td>-.080</td>
<td>.147</td>
<td>-.042</td>
<td>.066</td>
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<tr>
<td>Education</td>
<td>.422</td>
<td>1.240</td>
<td>.029</td>
<td>.687</td>
<td>1.098</td>
<td>.047</td>
</tr>
<tr>
<td>Number of children</td>
<td>2.085</td>
<td>1.220</td>
<td>.152</td>
<td>1.685</td>
<td>1.070</td>
<td>.123</td>
</tr>
<tr>
<td>Household income</td>
<td>.004</td>
<td>.004</td>
<td>.002</td>
<td>.004</td>
<td>.029</td>
<td>.001</td>
</tr>
<tr>
<td>Marital status</td>
<td>-6.084</td>
<td>3.035</td>
<td>-.172</td>
<td>-8.388</td>
<td>2.680</td>
<td>-.237</td>
</tr>
<tr>
<td>The help of religion</td>
<td>2.068</td>
<td>.537</td>
<td>.305***</td>
<td>1.487</td>
<td>.484</td>
<td>.219**</td>
</tr>
<tr>
<td>Number of abortions</td>
<td>2.117</td>
<td>.759</td>
<td>.225**</td>
<td>2.283</td>
<td>.665</td>
<td>.242***</td>
</tr>
<tr>
<td>Period after abortion</td>
<td>.346</td>
<td>.122</td>
<td>.234**</td>
<td>.290</td>
<td>.108</td>
<td>.196**</td>
</tr>
<tr>
<td>Gestational age at the time of abortion</td>
<td>-.743</td>
<td>.218</td>
<td>-.274***</td>
<td>-.663</td>
<td>.192</td>
<td>-.245***</td>
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<tr>
<td>Type of abortion</td>
<td>2.004</td>
<td>1.732</td>
<td>.093</td>
<td>2.295</td>
<td>1.516</td>
<td>.106</td>
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<tr>
<td>Grief(A)</td>
<td>1.692</td>
<td>.786</td>
<td>.152*</td>
<td>1.868</td>
<td>.774</td>
<td>.168*</td>
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<tr>
<td>Partner support(B)</td>
<td>4.755</td>
<td>.813</td>
<td>.413***</td>
<td>4.775</td>
<td>.797</td>
<td>.415***</td>
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<tr>
<td>A×B(Interaction)</td>
<td>1.888</td>
<td>.776</td>
<td>.165*</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Constant</td>
<td>36.224</td>
<td></td>
<td>43.776</td>
<td></td>
<td>43.019</td>
<td></td>
</tr>
<tr>
<td>Adjusted R²</td>
<td>.220</td>
<td>.404</td>
<td>.427</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>F for change in R²</td>
<td>4.786***</td>
<td></td>
<td>20.117***</td>
<td></td>
<td>5.923*</td>
<td></td>
</tr>
</tbody>
</table>

Note. Marital status: Married=1,
Kind of abortion: Natural abortion = 1
* p < .05, ** p < .01, *** p < .001

This equation can be plotted on a graph, as shown in Figure 1. The level of PTG markedly increased as the level of grieving increased, in the group with a high level of partner support. However, the level of PTG showed only a moderate increase in the group with a low level of partner support. The result indicates that partner support mediated the effect of grieving on PTG.
Discussion

The aim of the present study is to examine how grief experience of women with a history of abortion is associated posttraumatic growth in Korea, and how this association changes based on the level of perceived support from their partners.

Analytic results revealed that there is a significant negative association between grief experience and posttraumatic growth. The findings suggest that women who were able to grieve properly and sufficiently and overcome their grief after the pregnancy loss were more likely to experience posttraumatic growth.

A positive association between partner support and posttraumatic growth was also found in the analysis. This finding supports previous literature that has documented a positive impact of social support on posttraumatic growth (see Prati & Pietrantoni, 2009). Moreover, the findings from this study suggest that partner support may buffer the negative association between grief following a pregnancy loss and posttraumatic growth. Particularly, the congruence and openness between partners during the grieving process not only enhancing the outcome of the grieving process but also strengthens the relationship after the bereavement (Avelin et al., 2013; Büchi et al, 2009; Stroebe, Finkenauer, Meij, Schut, van den Bout, & Stroebe, 2013).

There are limitations to the study that warrants further discussion. First, due to the challenges of randomly sampling those who had a history of pregnancy loss, convenience sampling strategy was used in this study. Second, the average time since a loss during pregnancy is 10.34 years and the range between study participants is also wide. The amount of time passed since the abortion significantly affects most individual’s grieving process and posttraumatic growth. Third, the cross-sectional nature of the study limits the causal inference between the key independent and dependent variables.

Despite the limitations, there are significant contributions to the field made by the present study. The findings from this study provide new insights into the posttraumatic growth experience among women with a history of a pregnancy loss. While there has been a significant body of research on posttraumatic growth of parents who have lost their child, posttraumatic growth among women with an experience of a pregnancy loss is an area that is yet to be fully understood. In this study, we were able to find that the association between grief experience and posttraumatic growth is comparable to other literature that examined bereavement and posttraumatic growth.

Acknowledgement

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References


