The Effectiveness of Family Resiliency Program with Traumatic Grief on Women’s Post-Traumatic Stress, Grief and Family Resiliency Level

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Abstract
This experimental research investigated the effects of Family Resiliency Program (FRP) on post-traumatic stress, grief, and family resiliency level for women with traumatic grief. The study was conducted with 24 women who applied to the non-governmental organization between 2012 and 2013 due to the traumatic loss of their husbands and who obtained a high score on the post-traumatic stress disorder checklist civil version (PCL-C), and the grief inventory (GI), and a low score on the family resiliency scale (FRS) in pre-test assessment. The experimental group (n=12) received an eight session (FRP) intervention developed by the researcher. A group of women in a control group (n=12) received no intervention. To determine the immediate and long-term effects of the FRP program with traumatic grief, post-tests (PCL-C, GI, FRS) were given to the experimental and control group in two and a half month and six month intervals, respectively. In data analysis of this study two way repeated measures Anova was used. In study results, FRP for women with traumatic grief was found to be significantly effective in decreasing post-traumatic stress and grief levels and increasing family resiliency level. The effects of the program persisted during the follow-up tests. The results of this research were discussed in light of the literature, with recommendations presented for counselors and researchers.

Keywords
- Traumatic grief
- Family resiliency
- Family resiliency program for women with traumatic grief

Introduction
One of the hardest challenges a family faces is death. Death leads to grief for relatives of a deceased person along with the short and long-term changes in organization, functioning, and relations of the family (Walsh & McGoldrick, 2004). The loss becomes unusual or traumatic when it is experienced suddenly (suicide, accident, heart attack), with continuous subjection (relative with chronic disease), or with a traumatic perception of the loss (Jacobs, 1999; Jacobs, Mazure, & Prigerson, 2000; Jacobs & Prigerson, 2000; Prigerson, Vanderwerker, & Maciejewski, 2008).

Individual’s reaction to traumatic loss are called reactions of “traumatic grief” problem (Jacobs, 1999: Prigerson, Bierhals, Wolfson, Ehrenpris, & Reynolds, 1997; Shear et al., 2001). Traumatic grief is two dimension. One is separation anxiety, another is adaptation problems due to trauma symptoms.

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In traumatic grief the individual has difficulty adapting to a new life without the lost one and experiences separation anxiety (Jacobs, 1999; Prigerson et al., 1997; Shear et al., 2001). An individual who lost his/her relatives does not lose only a person, but also his/her life conditions, his/her home, his/her school, his/her job, his/her health, and even his/her economic gain (Jacob et al., 2000; Jacob & Prigerson, 2000). Studies show that traumatic grief is 18.6% in global clinical population (Kersting, Brahler, Glaesmer, & Wagner, 2011). In studies on normal population, traumatic loss varied between 9% and 20% (Prigerson & Jacobs, 2001). Traumatic grief affects all individuals in family with different symptoms and levels irrespective of gender (Chen et al., 1999). However, as women live longer than men they encounter more incidents of death and death affects women more than men socially, emotionally, and economically, which indirectly affects whole family members (Fujisawa et al., 2010; Lee, Willets, & Seccombe, 1998; Walsh & McGoldbrick, 2004). Among these adverse effects are high levels of depression and suicide risk (Boelen & Prigerson, 2007; Latham & Prigerson, 2004, Sung et al., 2011) and various physical impairments (high blood pressure, heart problems, ulcers and colitis) (Prigerson et al., 1997).

There are various approaches about traumatic grief (e.g., behavioral therapy, psychodynamic therapy, cognitive behavioral therapy, group therapy, interpersonal therapy, family therapy) in the literature. (Jacobs & Prigerson, 2000; Rosner, Pfoh ve Kotoučová, 2011b; Wetherell, 2012). According to attachment theory, the individual who lost his/her significant person ignores his/her death, earches him/her extremly and has difficulty in rearranging his relationship mentally (Field ve Sundin, 2001, Yu, He, Xu, Wang, & Prigerson, 2016). Attachment theory effectively explains symptoms of separation anxiety during traumatic grief through descriptive studies (Field & Friedichs, 2004; Fraley & Bonanno, 2004; Wayment, 2006, Yu et al., 2016). The cognitive-behavioral approach (Malkinson, 2013) and systemic family therapy (Bettmann & Jasperson, 2008) have considered the application of attachment theory in the context of the traumatic grief.

According to cognitive behavioral therapy, it is seen intense negative affect, irrational thoughts and unhealthy behaviours (excessive search / control or avoidance) after traumatic loss (Malkinson, 2013). The aim of cognitive behavioral approach about traumatic grief is to transform negative emotions to positive emotions, irrational beliefs to rational beliefs and dysfunctional behaviours to functional behaviour and reconstruct the relationship of the individual with the traumatic death (Fleming & Robinson, 2001, Kavanagh, 1990, Malkinson, 2013). In literature cognitive behavioral therapy effectively explain traumatic grief symptoms with both descriptive and experimental studies (Lenferink, Wessel, de Keijser, & Boelen, 2016; Rosner, Bartl, Pfoh, Kotoučová, & Hagl, 2015; Rosner et al., 2011b; Shear & Bloom, 2017; Shear, Frank, Houck, & Reynolds, 2005)). Effective studies of these approaches focus on individual methods, and traumatic grief is handled separately as trauma and grief in 8-16 weeks.

As the traumatic grief occurs in the family, bereavement interventions drawing on the strengths and resilience of the families and their communities are more effective than individual methods focusing on symptom reduction (Walsh & McGoldrick, 2004, 2013). Walsh (2003; 2006) defined the concept of family resiliency as tackling life challenges (economic challenges, diseases, losses, traumas, etc.), recovering, strengthening, and overcoming the process with more resources, and it is handled in many challenges (traumatic grief, post-traumatic stress disorder, chronic disorder, substance addiction) via various programs. In short, each family resilience program is constituted according to the hardship (terrorist attack, war, loss). Depending on the hardship, one or more family members can participate in these programs. In general family resilience programs includes the relationship of participants with themselves, family, society, culture and spiritual things, the way participants experience the challenges, the sources of coping strategies (courage, insistence, mutual support), givin a meaning life with these resources and planning re-life goals (Landau & Saul, 2004, Walsh & McGoldrick, 2004).
Walsh and McGoldrick (2004) identify four major tasks for families experiencing traumatic grief. These include 1) the open acknowledgment of the traumatic loss, supported by cultural and religious rituals to honor the life and mark the death and passage; 2) the emotional sharing and meaning of the loss and its impact; 3) the reorganization of role, relations, and functions for adaptation to the changing family structure; and 4) the formation of new expectations, dreams, and plans for the life of the family.

Studies in recent years stress the importance of early intervention to traumatic grief (Litz, 2004). Furthermore, early intervention is more efficient in multiple family groups and community approaches, which increase the resilience of the family and the society (Bava, Coffey, Weingarten, & Becker, 2010; Greeff & Human, 2004; Kissane & Bolch, 2003; Landau, Mittal, & Wieling, 2008; Walsh, 2007). In this respect, the nine-week long “Coffee/Tea and Family Education and Support Programs/CAFES & TAFES (Walsh, 2006) organized by the University of Chicago on Bosnian and Kosovan refugees between 1998-1999, group programs for the families affected by the 1995 Oklahoma City bombing (Sitterle & Gurwitch, 1999), and the “Lower Manhattan Community Recovery Project” (Landau & Saul, 2004) right after the World Trade Center attacks are considered to be model traumatic grief programs for increasing family and social resilience. In these example programs include sharing the difficulties after loss, finding individual/familial/social resources to reduce the stress due to the loss, supporting all rituals that enable the individual family to return to their daily life function and planning the goals for the individual/family to adapt to new life situations (Landau & Saul, 2004, Walsh, 2006).

In the national literature, there is no empirical study about family resilience in the traumatic grief. There are only a few descriptive studies that deal with traumatic grief (Cesur, 2012; Çelik & Sayıl, 2003; Sezgin, Yüksel, Topçu, & Genç-Dişçigil, 2005) and family resilience (Kaner & Bayraklı, 2010). There are also a few qualitative studies that deal with traumatic grief (Volkan & Zintl, 2010) family resilience (Özbay & Aydoğan, 2013). Lastly, the risk of experiencing traumatic grief for global normal population is seen to be on the rise (22.7%) through sudden unexpected deaths (Fujisawa et al., 2010) and especially women are more affected than men (Lee et al., 1998; Walsh & McGoldrick, 2004). Therefore the program is crucial for women with traumatic grief problem. And in literature, few experimental studies address family resiliency in traumatic grief issues. Therefore, the aim of the study is to examine the effects of FRP for women with traumatic grief on post-trauma stress, grief, and family resiliency levels. The study tests the following hypotheses to reach these aims.

**Hypotheses**

H1: The program of family resiliency in traumatic grief will be significantly more effective in decreasing the post-traumatic stress levels of women in experimental group than the post-traumatic stress levels of women in control group and this effect will be sustained in measurements to be conducted two and a half, and six months following the completion of the program.

H2: The program of family resiliency in traumatic grief will be significantly more effective in decreasing the grief levels of women in experimental group than the grief levels of women in control group and this effect will be sustained in measurements to be conducted two and a half, and six months following the completion of the program.

H3: The program of family resiliency in traumatic grief will be significantly more effective in increasing the family resiliency of women in experimental group than the family resilience levels of women in control group, and this effect will be sustained in measurements to be conducted two and a half, and six months following the completion of the program.
Method

Research Design

This study examines the effects of FRP in traumatic grief on women’s post-trauma stress, grief, and family resiliency levels. In the below the first factor shows the independent functional groups (experiment and control), while the other factor shows the repeated measurements (pre-test, post-test, follow-up test I and II measurements) in different conditions related to the dependent variable (Büyükoztürk, 2002).

Table 1. Research Pattern

<table>
<thead>
<tr>
<th>Groups</th>
<th>Pre-Test</th>
<th>Intervention</th>
<th>Post-test</th>
<th>Follow Up Test I</th>
<th>Follow Up Test II</th>
</tr>
</thead>
<tbody>
<tr>
<td>Experiment</td>
<td>FRS</td>
<td>(FRP)</td>
<td>FRS</td>
<td>FRS</td>
<td>FRS</td>
</tr>
<tr>
<td></td>
<td>PCL-C</td>
<td></td>
<td>PCL-C</td>
<td>PCL-C</td>
<td>PCL-C</td>
</tr>
<tr>
<td></td>
<td>GI</td>
<td></td>
<td>GI</td>
<td>GI</td>
<td>GI</td>
</tr>
<tr>
<td>Control</td>
<td>FRS</td>
<td>No intervention</td>
<td>FRS</td>
<td>FRS</td>
<td>FRS</td>
</tr>
<tr>
<td></td>
<td>PCL-C</td>
<td></td>
<td>PCL-C</td>
<td>PCL-C</td>
<td>PCL-C</td>
</tr>
<tr>
<td></td>
<td>GI</td>
<td></td>
<td>GI</td>
<td>GI</td>
<td>GI</td>
</tr>
</tbody>
</table>

Participants

In this research, participants were chosen among Turkish women who lost her husbands and got financial assistant from a non-governmental organization (NGO) between 2012 and 2013. For this study, appropriate sampling method was used. Before the application women got information consent. To define trauma, grief, and family resiliency of 80 women who lost their husbands in traumatic situations (car accident, cancer, heart attack, murder) in the last six months, PCL-C, FRS, and GI were applied. A total of 34 individuals including those who wholeheartedly replied to the scales scoring higher than average of PCL-C list and GI (X=44.79), (Ss=14.73), (X=91.47) (Ss=25.65), and lower than FRS average (X=127.43) (Ss=29. 57) were selected. Twenty four of the thirty four four women were randomly placed in the experiment and control groups upon accepting voluntary participation. Participants in the experiment and the control groups matched in terms of demographic variables. In particular, all of the participants were of low socioeconomic status. The control group was promised a FRP in traumatic grief after the study was completed. The age range of the experimental group was 35-60 (X = 43.17, Sd = 7.35) and the control group was 32-59 (X = 40.67, Sd = 9.26). In addition, 91.7% of the participants in the experimental group and the control group were graduated from primary school. 83.3% of the participants in the experimental group and 75% of the participants in the control group were not working. Finally, both the experimental group and the control group have at least 2 children. A summary of the demographic characteristics is given in Table 2.

Table 2. Demographic Features of Participants in Experiment and Control Groups
Data Collection Instruments

Post-Traumatic Stress Disorder Checklist Civil Version (PCL-C): This checklist developed by Weathers, Litz, Herman, Huska, and Keane (1993) and adapted into Turkish by Kocabasoglu, Ozdemir, Yargic, and Geyran (2005) is used to measure post-trauma stress. The scale has 17 items, three sub-dimensions and five Likert scales with a maximum grade of 85 and a minimum of 17. The concurrent validity of the original inventory with the Mississippi PTSD scale varies between .85 and .93 (Weathers et al., 1993). The reliability of original form, Cronbach’s alpha consistency coefficient varied between .94 and .97 (Weathers et al. 1993). The reliability coefficients of the test-retest period of three weeks were measured as .96 for the whole scale and .88 for the one week-interval application. The Turkish scale’s reliability coefficient was .92 and article total correlation coefficients varied between .37 and .73.

Grief Inventory (GI): This scale developed by Balci-Celik (2006) is utilized to measure the grief. The inventory has 35 items, four sub-dimensions (physical, emotional, cognitive, behavioral), five Likert types with 175 as the highest score and 35 the lowest. To examine the factor structure and identify sub-dimensions, a basic component analysis and a Varimax rotation technique were applied in a validity study of the scale. The Varimax rotation technique provided a distribution of articles with factor loads greater than .30 factors. When factor analysis was applied it was seen that the articles distributed into many factors with eigenvalues over 1. Upon a screen test, it was seen that 35 out of 45 items reflected the four dimensions (physical, emotional, cognitive, and behavioral). This scale with 35 item has four factors, and these explain 53.192% of the inventory. Cronbach’s alpha consistency coefficient for total is .96, for physical dimension is .65, for emotional dimension is .90, for cognitive dimension .81 for behavioral dimension .62. The test-retest reliability of the scale was found .84 with at an interval of four weeks. Item-total correlation of the scale varied between .30 and .87.

Family resiliency scale (FRS): FRS developed by Kaner and Bayrakli (2010) is used to measure family resiliency. The scale of 37 items and four sub-dimensions (challenging, self-sufficiency, conduct of life, and control) includes five Likert type with 185 as the highest score and 37 the lowest. Confirmatory and exploratory factor analysis was conducted at the validity studies of the scale. The KMO sampling coefficient was found to be .94, with the Barley Sphericity test x2 value as 9787.969 in the exploratory factor analysis of the scale applied to 524 people. 37 items explaining 45% of the total variance was obtained. A factor load of challenging sub-dimension varies between .45 and .68. A factor load of self-sufficiency sub-dimension varies between .46 and .69. A factor load of conduct of life sub-dimension varies between .38 and .63. A factor load of control sub-dimension varies between .33 and .40. The goodness of fit index values obtained from the confirmatory factor analysis of the scale is Chi-Square Sd=1300.96/620=2.1, RMSEA= .046; RMR=.044, NFI=.084, NNFI=.90, CFI=.91; GFI=.88, AGFI=.87. Cronbach alpha-coefficients of the scale varied between .54 and .94 for the whole. Test-retest reliability varied between .33 and .80 for the whole.

Experimental Procedures
The Scope of FRP in Traumatic Grief

The program, developed by researcher structured as a psychological intervention group program towards increasing family resiliency levels and decreasing traumatic grief levels of women. Before the program development theoretical information about traumatic grief and family resilience was collected and programs on these two concepts were examined (Boss, Beaulieu, Wieling, Turner, & La Cruz, 2003; Landau & Saul, 2004; Rosner et al., 2015; Shear & Bloom, 2017; Walsh & McGoldrick, 2004). 1 year before the FRP program, a pilot study was applied with eight women with traumatic grief problem and activities of program was seen as suitable. During the literature search and the pilot study, it was understood that the traumatic grief problem is multidimensional and should be considered together with several theoretical approaches (Pearlman, Wortman, Feuer, Farber, & Rando, 2014; Rubin, 1999; Stroebe & Schut, 2001; Williams, Rheingold, McNallan, & Knowltonb, 2018). These above
mentioned theories are attachment theory (Field, Gao, & Paderna, 2005; Neimeyer, Prigerson, & Davies, 2002; Shear & Shair, 2005), cognitive-behavior theories (Boelen, van den Hout, & van den Bout, 2005; Fleming & Robinson, 2001; Malkinson, 2013), and systemic family therapy approaches (Landau & Saul, 2004; Walsh & McGoldrick, 2004).

Attachment theory addressed traumatic grief more with relational studies and these studies’ results contributed to the organization of the activities of the program (Field & Friedrichs, 2004; Wayment & Vierthaler, 2002; Wayment, 2006). Moreover the application of cognitive behavioral studies (Boelen & Prigerson, 2007; Fleming & Robinson, 2001; Malkinson, 2013) and systematic family therapy studies ((Landau & Saul, 2004; Walsh & McGoldrick, 2004) deal with separation anxiety problems which mentioned in attachment theory effectively. Thus in this study the explanations of attachment theory was integrated the activities of cognitive behavioral therapy and systematic family therapy.

In the research, firstly, the relationship is placed in the center with mental internal representations in order to cope with the traumatic grief (Field & Friedrichs, 2004). Then, restructuring the mourning and adapting to new life, shortly the cognitive processes, are emphasized (Malkinson, 2013). In the cognitive behavioral therapy approach, the traumatic grief is treated individually or as a group, and trauma and grief is taken separately in 8-16 sessions / session (Cohen, Mannarino & Deblinger, 2006; Layne et al., 2001; Pfeffer, Jiang, Kakuma, Hwang, & Metsch, 2002; Saltzman, Pynoos, Layne, Steinberg, & Aisenberg, 2001).

In addition to these three theoretical approaches, the FRP in traumatic grief also includes a variety of theories techniques behavioral techniques: relaxation, cognitive behavioral theory: identifying and modifying irrational thought and using images, emotional approaches: writing a letter or poem, gestalt therapy: focusing on body, empty chair, solution focused therapy: miraculous day, multi-generational family therapy: genogram or photograph). In this context, while preparing FRP in traumatic grief, an eclectic approach has been widely used from these three approaches and the techniques of other theories was used to create a unique psycho-education group program (Rosner et al., 2011a; Schupp, 2004). In addition, this program had two modules in accordance with the literature as trauma and grief. Furthermore studies and applications of family resilience (are searched in literature (Boss et al., 2003; Campbell & Demi, 2000; Greeff & Human, 2004; Griffith et al., 2005; Landau et al., 1996; Landau & Saul, 2004; Sandler et al., 2003; Weine et al., 2004; Weine et al., 2005; Weine et al., 2008).

The Content of FRP in Traumatic Grief

FRP in traumatic grief was a psychological intervention group program with eight sessions. Four of the eight were on trauma and the remaining four were on grief. Twenty four activities were included in sessions towards traumatic grief and family resiliency. Each session included three activities, on average 20 minutes each. The first activity was for warming up, the second focused on the real purpose of the session and, and the third helped participants leave the session with positive emotions. One of the activities for warming is "Name Adventure". In this activity, the name, the relationship between the individual and the person who puts the name and the importance in the life of the name has been discussed. One of the trauma activities for the purpose of the program is the "Family Car and Parts". The aim of this activity was to realize that the continuity of the role of the family members and the functions of the family members. One of the mourning activities for the main purpose of the program is the activity of "Miss and Not Miss". The purpose of this activity is to question the various irrational beliefs about loss and to consider it in a more logical framework. One of the activities to leave positive atmosphere with the session is the "Safe Place" The purpose of this activity is to make the individual easier to remember a place where he feels himself / herself safe when he / she comes to negative emotions and to deal with negative emotions more. Table 3 below shows topics handled in two main sessions.
Table 3. Traumatic Grief Program Content

<table>
<thead>
<tr>
<th>Session</th>
<th>Trauma Sessions</th>
</tr>
</thead>
</table>
| 1<sup>st</sup> | Meeting, group cohesion  
Identification of traumatic grief problem at a common ground  
Giving information about traumatic grief processes and resiliency (as individual and family) |
| 2<sup>nd</sup> | Defining traumatic grief problem and dealing with changes occurring in individual and family upon loss.  
Dealing with clues reminding traumatic grief problem and emotions on clues. |
| 3<sup>rd</sup> | Awareness on how to cope traumatic loss problem (as an individual and as a family).  
Handling emotions and bodily reactions during traumatic loss.  
Dealing with how to relax emotionally and bodily. |
| 4<sup>th</sup> | Grief Sessions  
Dealing with irrational thoughts and unhealthy behaviors in traumatic grief and their impacts on family resiliency.  
Mentioning lost one,  
Facing with Emotions during the grief process.  
Meaning to the Grief  
Restructuring the relation with the person who lost  
Restructuring cognitive distortions formed in grief process and increasing family resiliency.  
Arranging the living space and restructuring the relations  
Gaining new coping skills.  
Increasing the individual’s communication skills with family and making them accept they are resilient (as individual and family).  
Accepting the loss  
Preparing the individual and family for future problems and losses. |

FRP in Traumatic Grief Application Procedures (Time, Place)

The program was applied in the meeting room of the NGO working with Turkish women in the Fatih district of Istanbul. Participants sat in a circle. The training program lasted for eight weeks, with 90 minute sessions once a week. Each session included three activities, on average 20 minutes each.

Data Analysis

In order to be able to decide which tests (parametric or non-parametric) should be used during the analysis of the data, the pre-test scores of the PCL-C, GI and FRS obtained from the individuals in the experimental and control groups were analyzed. According to the preliminary analysis results, the data have homogeneous and normal distribution. Thus it was decided that parametric tests could be used in the study.
In the research, there are two groups as experimental and control groups. In terms of measures, the measurements of the groups within themselves, between individuals and within individuals are taken. One of the ways in which statistical significance of the change in pre-test, post-test and follow-up test I and follow-up II measurements is "Two-way ANOVA for repeated measures on a single factor (Balci, 1997). Thus, 2X4 two-factor ANOVA technique was used for repeated measurements, which is suitable for split-plot (mixed) designs (Büyüköztürk, 2002). As a result of this analysis, data were assessed by the Tukey (HSD) test in order to analyze the difference source when significant difference was.

The data of pre-test, post-test, follow-up I and follow-up II tests were transferred to the computer. In the study, the significance level is "-0.05 and p <.01 levels were also indicated. SPPS 16.0 package program was used for analysis of the data.

Results

This section includes statistical analyses to test hypotheses of the research and results of these analyses.

Results on Preliminary Analysis

To use parametric tests in the analysis the homogeneity, normal distribution, skewness, and kurtosis values were initially tested. According to parametric test results in pretest measurements, there were not any significant difference among the average scores of PCL- C, (F1=2,432, p> .05), of (GI) (F1=1,531, p>.05), of (FRS) (F1=2,432, p>.05), and of (FRS) (F1=2,432, p>.05). Furthermore, the Kolmogorov-Smirnov test from PCL-C (.518 p>.05), from GS (.249, p> .05) and from FGS (.249, p>.05) were larger than (p) .05 (Büyüköztürk, 2002). This Kolmogorov-Smirnov test results showed the normal distribution. The skewness and kurtosis level obtained from the scores of experiment and control groups in pre-test measurements on each three scales were between +1 and -1, which showed normal distribution.

Results on Hypotheses on Decreasing Post-Trauma Stress Level

The first hypothesis of the research was expressed as "FRP in Traumatic Grief significantly more effective in decreasing the post-traumatic stress levels of women and this effect will be sustained in measurements to be conducted two and a half, and six months following the completion of the program." The pre-test, post-test, follow up tests I and II, arithmetic averages, and standard deviations of the PCL-C scale of participants in experiment and control groups can be seen in Table 4.

<table>
<thead>
<tr>
<th>Measurements</th>
<th>Pre-Test</th>
<th>Post Test</th>
<th>Follow up Test I</th>
<th>Follow up Test II</th>
</tr>
</thead>
<tbody>
<tr>
<td>Groups</td>
<td>X</td>
<td>Ss</td>
<td>X</td>
<td>Ss</td>
</tr>
<tr>
<td>Experiment</td>
<td>55.75</td>
<td>5.44</td>
<td>28</td>
<td>3.76</td>
</tr>
<tr>
<td>N=12</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Control</td>
<td>53.08</td>
<td>5.10</td>
<td>57.08</td>
<td>3.36</td>
</tr>
<tr>
<td>N=12</td>
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</table>

Considering Table 4, pre-test averages of experiment and control groups are seen to be equivalent while there are differences between post-test and the follow up I and II tests scores of both groups. Whether or not PCL-C of both groups’ measurement score averages has significant differences was tested by variance analysis (ANOVA). Results are presented at Table 5.
Table 5. Variance Analysis Results of Two Factors on PCL-C Experiment and Control Groups Scores

<table>
<thead>
<tr>
<th>Source</th>
<th>Sum of Squares</th>
<th>Sd</th>
<th>Average of Squares</th>
<th>F</th>
<th>p</th>
<th>Eta Square</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between groups</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Group (E/C)</td>
<td>13632.34</td>
<td>23</td>
<td>12880.667</td>
<td>376.99</td>
<td>.000</td>
<td>.945</td>
</tr>
<tr>
<td>Error</td>
<td>751.667</td>
<td>22</td>
<td>34.167</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Within groups</td>
<td>8591.5</td>
<td>24</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Measurement (pre-post - follow up)</td>
<td>2396.583</td>
<td>1</td>
<td>1075.930</td>
<td>68.906</td>
<td>.000</td>
<td>.758</td>
</tr>
<tr>
<td>Group* Measurement</td>
<td>5429.750</td>
<td>1</td>
<td>2437.60</td>
<td>156.116</td>
<td>.000</td>
<td>.876</td>
</tr>
<tr>
<td>Error</td>
<td>765.167</td>
<td>22</td>
<td>23.667</td>
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</tbody>
</table>

As seen in Table 5, the results on the PCL-C scale the group effect was found to be significant \((F_{(1-22)} = 376.95; p < .01)\). Without discriminating between pre-test, post-test and follow up tests I and II of experiment and control groups, there is a significant difference between average scores from PCL-C. Between average scores of individuals obtained from pre-test, post-test, and follow up-tests I and II, without group discrimination there were also significant differences \((F_{(2-22)} = 68.96 \ p < .01)\). Without group discrimination, this result shows that post-trauma stress levels of individuals vary, depending on the experimental process. Furthermore, it was seen that value obtained upon examination of common effect (group*measurement) was significant \((F_{(2-22)} = 156,11; p < .01)\). This shows that scores of individuals from PCL-C scale in pre-test, post-test, and follow up I and II measurements in experiment and control groups varied. Considering all these results, it can be concluded that the hypothesis claimed on post-traumatic stress in the study is verified. A Tukey test was conducted to indicate between which groups a significant difference exists, according to measurements between groups. The values obtained are shown in Table 6.

Table 6. Tukey Test Results on Differences in Between Subjects and Within Subjects of Measurements of PLC-C Versions

<table>
<thead>
<tr>
<th></th>
<th>Experiment Group</th>
<th>Control Group</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Pre-Test</td>
<td>Post-Test</td>
</tr>
<tr>
<td>Pre-test</td>
<td>-</td>
<td>27.75**</td>
</tr>
<tr>
<td>Post-test</td>
<td>-</td>
<td>2.25</td>
</tr>
<tr>
<td>Follow up I</td>
<td>-</td>
<td>2.41</td>
</tr>
<tr>
<td>Follow up II</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Pre-test</td>
<td>-</td>
<td>-4</td>
</tr>
<tr>
<td>Post-test</td>
<td>-</td>
<td>-2.33</td>
</tr>
<tr>
<td>Follow up I</td>
<td>-</td>
<td>-0.50</td>
</tr>
<tr>
<td>Follow up II</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

*p < .05 **p < .01

The first hypothesis of the research is confirmed and seen on Table 6. Significant difference exists between average scores of PCL-C pre-test of experiment group and those from post-test-and follow up-tests I and II. However, the difference between the average scores of PCL-C pre-tests of control group and those from post-test, follow up-tests I and II are not significant. Thus The FRP can be said to be significant in decreasing post-traumatic stress levels in experiment group.
Second hypothesis of the Results on Hypothesis on Decreasing Grief Level: In the research it was stated that “FRP in Traumatic Grief The program of family resiliency in traumatic grief will be significantly more effective in decreasing the grief levels of women and this effect will be sustained in measurements to be conducted two and a half, and six months following the completion of the program”. The pre-test, post-test, and follow up-tests I and II arithmetic averages and standard deviations (GI) of participants in the experiment and control groups are seen in Table 7.

Table 7. Arithmetic Average and Standard Deviation Values of Experiment and Control Groups’ (GI) Scores

<table>
<thead>
<tr>
<th>Measurements</th>
<th>Pre-Test</th>
<th>Post Test</th>
<th>Follow up Test I</th>
<th>Follow up Test II</th>
</tr>
</thead>
<tbody>
<tr>
<td>Groups</td>
<td>X</td>
<td>Ss</td>
<td>X</td>
<td>Ss</td>
</tr>
<tr>
<td>Experiment</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>N=12</td>
<td>100.41</td>
<td>10.29</td>
<td>65.00</td>
<td>9.00</td>
</tr>
<tr>
<td>Control</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>N=12</td>
<td>107.41</td>
<td>11.65</td>
<td>112.58</td>
<td>8.69</td>
</tr>
</tbody>
</table>

Considering Table 7, pre-test averages of experiment and control groups are seen to be equivalent while there are differences between post-test and, follow up-tests I and II scores of both groups. Whether or not the GI of both groups’ measurement scores averages has significant differences or not was tested by variance analysis (ANOVA). Results are presented at Table 8.

Table 8. Variance Analysis Results of Two Factors on (GI) Experiment and Control Groups Scores

<table>
<thead>
<tr>
<th>Source</th>
<th>Sum of Squares</th>
<th>Sd</th>
<th>Average of Squares</th>
<th>F</th>
<th>p</th>
<th>Eta Square</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between groups</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Group (E/C)</td>
<td>33004.167</td>
<td>1</td>
<td>33004.167</td>
<td>166.103</td>
<td>.000</td>
<td>.883</td>
</tr>
<tr>
<td>Error</td>
<td>4371.33</td>
<td>22</td>
<td>198.697</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Within groups</td>
<td>14404.497</td>
<td>24</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Measurement (pre-post - follow up)</td>
<td>1541.99</td>
<td>25.177</td>
<td>.000</td>
<td>.534</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Group* Measurement</td>
<td>7498.750</td>
<td>1</td>
<td>3137.357</td>
<td>51.228</td>
<td>.000</td>
<td>.700</td>
</tr>
<tr>
<td>Error</td>
<td>3220.33</td>
<td>22</td>
<td>61.243</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

As seen in Table 8, the results on the GI scale the group effect were found to be significant ($F(1, 22) = 166.103; p < .01$). Without discriminating between pre-test, post-test, and follow up-tests I and II of the experiment and control groups, there is a significant difference between average scores from GI.

Between average scores of individuals obtained from pre-test, post-test, and follow up-tests I and II without group discrimination, there were also significant differences ($F(2,22) = 25.177; p < .01$). Without group discrimination, this result shows that grief levels of individuals vary, depending on the experimental process. Furthermore, it was seen that value obtained upon examination of common effect (group*measurement) was significant ($F(2, 22) = 51.228; p < .01$). This shows that scores of individuals from the PCL-C scale in pre-test, post-test, and follow up I and II measurements in the experiment and control groups varied. Considering all of these results, it can be concluded that the hypothesis claimed on grief in the study is accepted. A Tukey test was conducted to indicate between which groups a significant differences exists, according to measurements between groups. The values obtained are shown in Table 9.
The second hypothesis of the research is confirmed and seen in Table 9. A significant difference exists between average scores of PCL-C pre-test of experiment group and those from post-test and, follow up-tests I and II. However, the difference between average scores of PCL-C pre-test of control group and those from post-test and, follow up-tests I and II is not significant. Thus, the FRP regarding the traumatic grief problem can be said to be significantly efficient in decreasing grief levels in experiment group.

**Results on Hypotheses on Increasing Family Resiliency Level:** The third hypothesis stated that “The program of family resiliency in traumatic grief will be significantly more effective in increasing the family resilience levels of women and this effect will be sustained in measurements to be conducted two and a half, and six months following the completion of the program.” The pre-test, post-test, and follow up-tests I and II arithmetic averages and standard deviations (FRS) of participants in experiment and control groups are seen in Table 10.

**Table 9. Tukey Test Results on Differences in Between Subjects and Within Subjects of Measurements of GI versions**

<table>
<thead>
<tr>
<th></th>
<th>Experiment Group</th>
<th>Control Group</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Pre-Test</td>
<td>Post-Test</td>
</tr>
<tr>
<td>Pre-test</td>
<td>-</td>
<td>35.41**</td>
</tr>
<tr>
<td>Post-test</td>
<td>-</td>
<td>-4.58</td>
</tr>
<tr>
<td>Follow up I</td>
<td>-</td>
<td>5.75</td>
</tr>
<tr>
<td>Follow up II</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

*p<.05 **p<.01

Concerning Table 10, pre-test averages of experiment and control groups are seen to be equivalent while there are differences between post-test and, follow up-tests I and II scores of both groups. Whether the FRS of both groups’ measurement score averages have significant differences or not was tested by variance analysis (ANOVA). Results here are presented at Table 11.
As seen in Table 11, the results on the FRS scale the group effect were found to be significant ($F_{(1-22)} = 304.148; p < .01$). Without discriminating between pre-test, post-test, and follow up-tests I and II of experiment and control groups, there is a significant difference between average scores from FRS.

Between average scores of individuals obtained from pre-test, post-test, follow up-tests I and II without group discrimination, there were also significant differences ($F_{(2-22)} = 49.839; p < .01$). Without group discrimination, this result shows that grief levels of individuals vary, depending on the experimental process. Furthermore, it was seen that value obtained upon examination of common effect (group*measurement) was significant ($F_{(2-22)} = 91.456; p < .01$). This shows that scores of individuals from FRS (level) in pre-test, post-test, and follow up I and II measurements in experiment and control groups varied. Considering all these results, it can be concluded that the hypothesis claimed on family resiliency in the study is verified. A Tukey test was conducted to indicate between which groups a significant differences exists, according to measurements between groups. The values obtained are shown in Table 12.

### Table 11. Variance Analysis Results of Two Factors on Experiment and Control Groups FRS Scores

<table>
<thead>
<tr>
<th>Source</th>
<th>Sum of Squares</th>
<th>$sd$</th>
<th>Average of Squares</th>
<th>$F$</th>
<th>$p$</th>
<th>Eta Square</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between groups</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Group (E/C)</td>
<td>62373.010</td>
<td>1</td>
<td>62373.010</td>
<td>304.148</td>
<td>.000</td>
<td>.933</td>
</tr>
<tr>
<td>Error</td>
<td>4511.646</td>
<td>22</td>
<td>205.075</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Within groups</td>
<td>43397.691</td>
<td>24</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Measurement (pre-post - follow up)</td>
<td>13245.365</td>
<td>1</td>
<td>7013.378</td>
<td>49.839</td>
<td>.000</td>
<td>.694</td>
</tr>
<tr>
<td>Group* Measurement</td>
<td>24305.615</td>
<td>1</td>
<td>12869.744</td>
<td>91.456</td>
<td>.000</td>
<td>.806</td>
</tr>
<tr>
<td>Error</td>
<td>5846.711</td>
<td>22</td>
<td>41.549</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The third hypothesis of the research is confirmed and seen in Table 12. Significant difference exists between average scores of FRS from the pre-test of the experiment group and those from post-test and, follow up-tests I and II. However, the difference between average scores of FRS pre-test of the control group and those from post-test, and follow up-tests I and II is not significant. Thus, FRP in traumatic grief can be said to be significantly efficient in decreasing grief levels in experiment group.
Discussion and Conclusion

The first two results of the research showed that FRP in traumatic grief have been effective in decreasing post-traumatic stress and grief levels. This program as the independent variant of the research was prepared on the basis of three principles (attachment theory, cognitive behavioral approach, and systemic family therapy). It is seen that literature contains studies that show programs based on these three approaches are efficient in decreasing grief and trauma levels of individuals with traumatic grief issues, supporting the results of this study (Boelen & Prigerson, 2007; Rosner, Lumberck, & Geissner, 2011; Sandler et al., 2003).

Many studies in the literature may support the effectiveness of attachment theory features (relationship internal mental representation centering) of the FRP in traumatic grief. The fact that these studies are effective in reducing traumatic grief symptoms with mental representation (Field & Friedrichs, 2004) and writing (Wagner, Knaevelsrud, & Maercker, 2006; Lichtenthal & Crues, 2010) which may be parallel with trauma and grief results of this research.

Furthermore, many studies in the literature may support the effectiveness of cognitive behavioral features (Socratic questioning, dealing with irrational beliefs, restructuring rational beliefs) of the FRP in traumatic grief. In these studies (Boelen & Prigerson, 2007; Layne et al., 2001, Lenferink et al., 2016; Pearlman et al., 2014; Pfeffer et al., 2002; Rosner et al., 2015; Rosner et al., 2011; Saltzman et al., 2001; Shear & Bloom, 2017; Shear et al., 2005)) stated that 8-10 week group intervention programs for participants with different traumatic loss (suicide, terrorist attack) decreased significantly the post-traumatic stress and grief level. These findings can support trauma and grief results of this research.

There are various researches conducted on the basis of systemic family therapy supporting FRP in traumatic grief. These researches (Boss et al. 2003; Kissane et al., 2006; Sandler et al., 2003) found that 8-12 weeks of group intervention programs for participants with different traumatic loss (suicide, terrorist attack) reduced significantly post-traumatic stress and grief levels. These results were accordance with trauma and grief findings of this study.

Moreover, a constant increase of trauma levels of women in the control group of the study and an increase, although not significant, in grief levels as well prove that preventive research is crucial. Burnett et al. (1994) stressed that a family’s traumatic grief tragedy experience does not end unless the traumatic grief issue is handled. Stroebe and Schutt (2001) and Worden (2010 ) stated that, when not handled, traumatic grief problems can increase in intensity on special days or certain occasions and negatively affect the functionality of the family. All these results show significance of FRP.

The third basic outcome of the study is that the FRP in traumatic grief was effective in increasing family resiliency in traumatic grief. The program used in this study stressed the importance of continuous and holistic social, emotional support in a family upon loss, and an increase in family resiliency of participants was observed. This result supports the view that support from the periphery (neighbors, relatives, friends), positive outlook of family members on life, and their skill of continuing as a family as well as emotional support upon loss make families resilient, as mentioned in various studies (Campbell & Demi, 2000; Greeff & Human 2004; Hooghe & Neiyemer, 2012; Walsh & McGoldbrick, 2004).

There have been experimental studies handling family resiliency results of FRP in traumatic grief. Some of these studies (Boss et al., 2003; Kissane et al., 2006; Sandler et al., 2003) found that 8-12 weeks of family focused grief programs for families suffering from different traumatic loss (disease, terrorist attack) significantly increased the family resilience level. These results are parallel to the findings of this study on family resilience. Similarly, some of these studies (Griffith et al., 2005; Landau
& Saul, 2004; Weine et al., 2008) found that 8-10 weeks of group intervention programs for families with different traumas (natural disasters, battles) significantly increased the family resilience level. These results can support the family resilience findings of this study.

Finally, certain aspects of the program’s structure and contents might be significant in its being an experimental study with proven efficiency in increasing family resiliency and decreasing signs of traumatic grief. Some facts, including that the structure and content of the program were prepared on a biopsychosocial view, the relationship with the center of the program, questioning of the individuals themselves/thoughts /behaviors/feelings in the program, being awareness of feelings and body sensations and sharing these feelings and sensations, sources of negative experiences handled in context of strength aspects, homework made part of the program, a pilot application conducted one year in advance, and review of the programs by experts, might have significant impacts on decreasing post-traumatic stress levels of participants.

Taken consideration to all the results of this research, it can be said that there are various limitations of the research. Considering these limitations, the following suggestions can be said to researchers and practitioners. Findings of this study are limited to the results obtained from women who lost their husband with disease (chronic or sudden) murder and with a traffic accident. However, as a result of increasing victimization of war and terrorism in the world today many families face traumatic losses. In this respect this research can be applied to and tested on those who lost relatives in war and terrorism. Moreover, this study is limited to the results obtained from adult women. A similar study can be conducted on children and adolescent groups. Since family resiliency is a multidimensional concept, there are few relevant and reliable measuring means. This study uses FRS applied to a risk group (parents with mental disabilities) with sub-dimensions (challenging, self-sufficiency, conduct of life and control) that are proper to measure family resiliency. Therefore, this can develop a family resiliency scale that applies to traumatic grief group and that is formed in traumatic grief problem of only sub-dimensions of family resiliency. In this respect a similar study to this developed family resiliency scale can be conducted to identify its effectiveness. And a longer term of one to two years of effectiveness of the FRP in traumatic grief can be monitored and its permanent effects can be tested within the scope of this research. Finally, the FRP in traumatic grief organized program easily utilized by experts working in psychological counseling and guidance and psychology. In this context, it can be reapplied and tested by experts.
References


