How Resilience Affects Post-Traumatic Stress Symptoms: The Mediating Role of Acceptance

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Not every individual who experiences a traumatic event is diagnosed with post-traumatic stress disorder (PTSD) or shows its symptoms. Resilience has been understood to be a key factor that helps individuals adapt successfully following an adversity. Acceptance has also been considered a therapeutic factor for such individuals. However, there are few studies that investigated the relationship between resilience and acceptance, and their impacts on post-traumatic stress symptoms. The current study examined the effect of resilience on post-traumatic stress symptoms and the mediating role of acceptance in the relationship. A total of 140 participants who experienced trauma (80 females and 60 males) were included in the analyses. Resilience was found to be negatively correlated with post-traumatic stress symptoms and acceptance was found to mediate the relationship between the two. This study provides an understanding of the mechanism underpinning the effect of resilience on post-traumatic stress symptoms. Study limitations and suggestions for future research are also discussed.

Keywords: resilience, acceptance, post-traumatic stress symptoms, mediating effect

Introduction

More than half of adult populations are reported to have experienced at least one traumatic event in their lifetime (Kessler et al., 2005). These traumatic events include direct exposure to life-threatening accidents, sexual crimes, domestic violence, physical attacks, or indirect witnessing others experience traumatic events. In the Diagnostic and Statistical Manual of Mental Disorders, Fifth Edition (DSM-5; American Psychiatric Association [APA], 2013), there is the prerequisite condition of exposure to life-threatening events indirectly as well as directly for diagnosis of post-traumatic stress disorder (PTSD). PTSD consists of four additional symptoms: intrusive symptoms (ex., intrusive thought and memories about the adverse events, nightmares, or flashbacks), avoidance symptoms (ex., trying to avoid stimuli that reminiscent tragic events), negative mood and cognitions (ex., negative beliefs about the world, others and self, or blame of self or others), and alterations in reactivity and arousal (ex., inability to feel interests in what were used to be interesting). Usually, individuals with PTSD suffer from negative changes of not only their cognition but the mood in various forms after exposure to the traumatic events, and sometimes they may experience personality changes (APA, 2013). All these symptoms, consequently, interfere with individuals’ better levels of functioning in their everyday lives.

However, some people adapt successfully after all traumatic and tragic experiences, and to them, the responses to traumatic events seem to be rather temporary (Bryant, 2003). Even though more than 50% of the population reported to have traumatic events, the life-time prevalence of PTSD was estimated to be less than 9%,
which suggests not all trauma-exposed individuals develop PTSD. This also suggests that there be protective factors that keep them from developing the symptoms of PTSD after experiencing traumatic events (APA, 2013). In regards to the preventative potential, it will be beneficial to identify the factors that influence the development of PTSD symptoms.

Resilience

Regarding the critical factors that distinguish people who develop PTSD from those who do not, resilience takes the front (Bonanno & Mancini, 2012). Resilience is a personal trait defined as the ability to adapt effectively and successfully after the individual experiences adversity, trauma, severe stress, or tragic life events (Charney, 2004; Connor & Davidson, 2003). Although the operational definition of resilience might vary from study to study, the currently agreed definition of resilience consists of three orientations: trait, outcome, and process (Hu et al., 2015). First, resilience is a personality that vaccinates people from the impact of negative experiences (Connor & Davidson, 2003; Hu et al., 2015). In the outcome orientation, secondly, resilience is considered as the behavioral outcome derived from the individual’s inclination to do something after experiencing traumas (Harvey & Delfabbro, 2004). The process orientation regards resilience as a process in which good adaptation is accomplished dynamically (Fergus & Zimmerman, 2005). According to this perspective, resilience is built up over a long time rather dynamically.

Resilience was found to play a protective role in post-traumatic stress symptoms. In general, resilient individuals tend to monitor their thoughts, regulate their emotions, and replace them in more adaptive ways (McRae, Ciesielski, & Gross, 2012). Resilience also has a positive correlation with both positive emotion and overall life satisfaction (Hu et al., 2015; Mak, Ng, & Wong, 2011) and with post-traumatic growth which represents the positive transforming impact of trauma on individuals’ personality (Arabaci, Dikec, Buyukbayram, Uzunoglu, & Ozan, 2018; Yoo, Choi, Han, Seo, & Noh, 2015).

A rich body of studies has verified that resilient individuals are healthier physically as well as psychologically than non-resilient individuals because resilience buffer negative effects of stressors (Connor & Davidson, 2003; Kim & Byeon, 2013). More specifically, in the studies with veterans of combat in Iraq and Afghanistan or with patients of back injuries, resilience was the construct that showed significantly negative relationship with PTSD symptoms or negative psychological symptoms including intrusive thinking and negative alterations both in cognition and in emotion (Blackburn & Owens, 2016; Min et al., 2014).

Resilient individuals appear to confront their fears and anxiety and restructure their adverse experiences cognitively (Foa et al., 2005; Horn, Charney, & Feder, 2016) so that they can overcome the negative effect of adverse experiences and achieve adaptive changes later on. Multiple variables such as positive emotion, characteristics, social supports, cognitive flexibility, and religious belief have been found to be associated with resilience (Hoge, Austin, & Pollack, 2007; King, King, Fairbank, Keane, & Adams, 1998). Specifically, resilience that is based on flexibility was reported to be associated with the prevention and alleviation of post-traumatic stress symptoms even if the participants were exposed to the repeated traumatic stimuli (Song, 2017). In a previous study, the specific mechanism of the effect of resilience on individuals’ well-being was examined and post-traumatic growth and post-traumatic negative cognition were found to have mediating roles (Cho, 2014). However, more research needs to be conducted to investigate the specific mechanism of resilience for individuals’ readjustment after traumatic events.

Acceptance

Acceptance is a non-judgmental attitude toward what the individuals experience and “being fully present” (Hayes, Strosahl, & Wilson, 1999). Acceptance involves three processes: observing what individuals experience, letting the desire to change situations go, and differentiating actual experiences from psychological experiences (Follette, Palm, & Hall, 2004). Individuals with acceptance try to understand their psychological state and do not avoid fixing their own experiences in non-judgmental manners (Hayes, 2004; Orsillo, Roemer, Lerner, & Tull, 2004). Acceptance helps people to view their psychological state as transient responses to unchangeable and unavoidable external experiences (Orsillo et al., 2004).

More specifically, in the context of post-traumatic stress symptoms, avoidance plays an important role in a dysfunctional way
when negative emotion needs to be regulated (Ruiz-Párraga & López-Martínez, 2014). Moreover, avoidance was considered to be one of the key factors among those involved in both etiology and maintenance of post-traumatic stress symptoms and diagnosis of PTSD (Morina, Stangier, & Risch, 2008; Orsillo & Batten, 2005). By the same token, acceptance can be viewed on the other side of avoidance (Orsillo, Roemer, & Barlow, 2003).

Recently, as the point of view on acceptance has developed, acceptance has been considered to imply a cognitive flexibility in various situations individuals go through (Heo, Choi, & Jin, 2009). Acceptance can be understood as psychological flexibility (Bond et al., 2011), and it helps individuals to stop having ruminative and intrusive thoughts, which can be a risk for psychopathologies such as depression, anxiety, and trauma-related disorders. Consequently, acceptance also promotes psychological stability after trauma (Abela & Hankin, 2011; Spasoveči & Alloy, 2001; Thompson, Arnkoff, & Glass, 2011).

Researchers and practitioners have regarded acceptance as a protective factor of post-traumatic stress symptoms, explaining that individuals with the acceptant perspective take their trauma-related experiences with no judgment and regulate their internal emotion better (Follette, Pal, & Pearson, 2006; Orsillo & Batten, 2005). Moreover, acceptance was found to facilitate individuals diagnosed with PTSD to recover from post-traumatic stress symptoms (Orsillo & Batten, 2005; Silver, Holman, McIntosh, Poulin, & Gil-Rivas, 2002). Conversely, individuals who lack acceptance after traumatic events reported to have more PTSD diagnosis and other negative symptoms (Tull, Barrett, McMillan, & Roemer, 2007).

Resilience and acceptance

As reviewed above, some studies examined the effects of resilience and acceptance on PTSD patients or individuals with traumatic symptoms: both high resilience and high acceptance were proved to be protective and therapeutic, and accepting attitude conferred individuals’ resilience after trauma (Bajaj & Pande, 2016; Thompson et al., 2011). Taking all these studies into account, resilience and acceptance are related to each other, and they both are crucial variables to understanding post-traumatic stress symptoms (Ruiz-Párraga & López-Martínez, 2014). However, few studies were conducted to examine specific underpinning processes of these variables for victims of trauma.

Resilience was considered as a trait-like or diathesis variable so that it played a significant role in explaining the difference in adjustment of individuals with physical pain (Ramírez-Maestre & Esteve, 2014; Sturgeon & Zautra, 2010). Because resilience includes diverse psychometric aspects (Hu et al., 2015), it might be less clear to make interventions for post-traumatic stress symptoms specifically focused on individuals’ resilience. Therefore, it would be helpful for the practical therapeutic interventions to examine the impact of another variable such as acceptance on the effect of resilience on individuals’ post-traumatic stress symptoms or the relationship among these variables.

More specifically, high resilience could be considered as the prerequisite condition of the positive result after traumatic events, and seemed to trigger high confrontation that led to positive adaptation. As the matters of acceptance, it has been considered as a cognitive variable (Heo et al., 2009), so it usually is targeted to be promoted in various therapeutic settings. According to this, it can be postulated that high resilience may lead to high acceptance that result in positive outcome.

Study objectives and hypotheses

The current study focuses on the relationship among resilience, acceptance, and post-traumatic stress symptoms for victims of traumatic experiences in Korea. The primary objective of this study is to verify the relationship between these variables with actual victims of various traumatic events.

First, as Ramírez-Maestre and Esteve (2014) did, we hypothesize resilience as a trait-like variable that can predict individuals’ adjustment. Second, the current study examines the mediating role of acceptance on the relationship between resilience and PTSD symptoms. That is to say that the higher resilience individuals show, the more acceptance they have, and consequently, they will have fewer symptoms of PTSD. Most people experience adverse events in their lives, but the impact of traumatic experiences such as accidents or crimes on individuals’ lives could be destructive or fatal. Therefore, it is meaningful to examine the factors of the adjustments of victims of various traumatic experiences.
Methods

Participants
Data were collected from 140 participants in Korea (80 females, 60 males) who were the victims of one of the various kinds of accidents or crimes. More specifically, accidents include car accidents, falling accidents, workplace accidents, and crimes include sexual violence, general violence, domestic violence or other violent crimes. Life Events Checklist of the Diagnostic and Statistical Manual of Mental Disorder–Fifth Edition (Weathers et al., 2013) was considered when accidental or criminal trauma was defined (APA, 2013). Participants did not have any of the following conditions: primary psychotic diagnoses such as schizophrenia, schizoaffective disorder, and schizophreniform disorder, serious medical condition sufficient to interfere with their participation in this study, intellectual disabilities, or neuro-cognitive impairment. Mean age for participants was 37.82 years (SD = 12.14); 37.16 years for females (SD = 12.08) and 38.70 years for males (SD = 12.26). The demographic characteristics of participants are presented in Table 1.

Measures
Connor–Davidson Resilience Scale (CD–RISC)
The resilience of participants was measured using the 25-item CD-RISC (Connor & Davidson, 2003). Total scores for CD-RISC range from 0 to 100, with items (ex., “See the humorous side of things.”) rated on a 5-point Likert scale (from 0 “rarely true” through 4 “true nearly all of the time”). This scale consists of items about controllability, responsibility, sense of humor, adaptation, among others, and is validated by studies aimed at various population such as general population, patients in primary health care centers, and psychiatric patients (Horowitz, Wilner, & Alvarez, 1979; Lim et al., 2009; Wilson & Keane, 2004). Resilience in this scale refers to positive sides of individuals’ differences in the responses of traumatic or adverse experiences (Min et al., 2013). Higher scores correspond to more resilience. Cronbach’s alpha in the present study was .94.

Acceptance and Action Questionnaire–II (AAQ–II)
Acceptance of participants was measured using the AAQ-II (Bond et al., 2011). Specifically, psychological acceptance or flexibility to experience unwanted private experiences is measured by this scale (McCracken & Gutiérrez-Martínez, 2011). In a validation study with Koreans, two items were deleted (Heo et al., 2009), so the sum scores of 8 items were analyzed. Total scores for AAQ-II range from 8 to 56, rated on a 7-point Likert scale (from 0 “never true” through 7 “always true”; “When I feel depressed or anxious, I am unable to take care of my responsibilities.”) Higher scores indicate more acceptance. Cronbach’s alpha in the present study was .91.

Impact of Event Scale–Revised (IES–R)
Post-traumatic stress symptoms of participants were measured using IES-R (Weiss & Marmar, 1997). This scale consists of 22 items using 5-point Likert scale (from 0 “not at all” through 4 “ex-

Table 1. Demographic Characteristics of Participants (N = 140)

<table>
<thead>
<tr>
<th>Variables</th>
<th>Gender</th>
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<tbody>
<tr>
<td></td>
<td>Female (n = 80)</td>
<td>Male (n = 60)</td>
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</tr>
<tr>
<td>Age (yr)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>10's</td>
<td>2</td>
<td>1</td>
<td>3</td>
</tr>
<tr>
<td>20's</td>
<td>25</td>
<td>15</td>
<td>40</td>
</tr>
<tr>
<td>30's</td>
<td>21</td>
<td>18</td>
<td>39</td>
</tr>
<tr>
<td>40's</td>
<td>15</td>
<td>12</td>
<td>27</td>
</tr>
<tr>
<td>50's</td>
<td>15</td>
<td>12</td>
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</tr>
<tr>
<td>60's</td>
<td>2</td>
<td>2</td>
<td>4</td>
</tr>
<tr>
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<td>26</td>
<td>60</td>
</tr>
<tr>
<td>Married</td>
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<td>26</td>
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<tr>
<td>Remarried</td>
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<td>4</td>
<td>6</td>
</tr>
<tr>
<td>Divorced</td>
<td>9</td>
<td>4</td>
<td>13</td>
</tr>
<tr>
<td>Bereaved</td>
<td>2</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td>Occupation</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Company employee</td>
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<td>24</td>
<td>43</td>
</tr>
<tr>
<td>Self-employed</td>
<td>4</td>
<td>7</td>
<td>11</td>
</tr>
<tr>
<td>Student</td>
<td>7</td>
<td>3</td>
<td>10</td>
</tr>
<tr>
<td>Professional</td>
<td>12</td>
<td>7</td>
<td>19</td>
</tr>
<tr>
<td>Housemaker</td>
<td>11</td>
<td>0</td>
<td>11</td>
</tr>
<tr>
<td>Other</td>
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<td>17</td>
<td>31</td>
</tr>
<tr>
<td>Unemployed</td>
<td>13</td>
<td>2</td>
<td>15</td>
</tr>
<tr>
<td>Type of trauma</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Traffic accident</td>
<td>25</td>
<td>35</td>
<td>60</td>
</tr>
<tr>
<td>Fall accident</td>
<td>3</td>
<td>3</td>
<td>6</td>
</tr>
<tr>
<td>Injuries with machine</td>
<td>1</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>Sexual violence</td>
<td>20</td>
<td>3</td>
<td>23</td>
</tr>
<tr>
<td>Physical violence</td>
<td>15</td>
<td>9</td>
<td>24</td>
</tr>
<tr>
<td>Domestic violence</td>
<td>7</td>
<td>0</td>
<td>11</td>
</tr>
<tr>
<td>Robbery/Attempted murder</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>Other</td>
<td>6</td>
<td>2</td>
<td>8</td>
</tr>
</tbody>
</table>
tremely”), and represents post-traumatic stress disorder-related symptoms (“I had trouble falling asleep.”) when the scores are greater than 22 (Lim et al., 2009). It has four subscales: arousal, avoidance, intrusiveness, and dissociation. In the present study, Cronbach’s alpha was .96.

Procedures
This study was approved by the Institutional Review Board (IRB) (approval number: 116271-2018-13). An advertisement was posted on two recruiting sites: a university medical center where victims of accidents were recruited, and Smile Center, a one-stop support center founded by the Korean Ministry of Justice, for victims of various crimes. All participants signed the informed consent and completed the questionnaire by him/herself.

Statistical analysis
Data were analyzed using SPSS 23.0 and SPSS Macro PROCESS. First, descriptive analysis for all variables and Pearson correlation analysis between variables were performed. Second, to test the effect of resilience on individuals’ PTSD symptoms and the mediation effect of acceptance, multiple regressions were conducted using SPSS Macro PROCESS (Hayes, 2013). SPSS Macro PROCESS made all variables centered to alleviate the problems of multicollinearity. Moreover, it performed ordinary least squares (OLS) regression with bootstrapping analysis with 5,000 samples. When the effect of resilience on PTSD symptoms was analyzed, demographic variables that were confirmed to have a significant correlation with predictor and outcome variables were controlled. All variables were centered to mean to alleviate the potential multicollinearity.

Results

Descriptive statistics
Prior to the main analysis, means, standard deviations, and minimum and maximum values of all variables were analyzed (Table 2).

Correlation between variables
To explore the relationship between the main variables as well as gender and age of participants, correlation analysis was performed (Table 3). Resilience showed a significant relationship with acceptance, $\gamma = .358$, $p = .000$, and PTSD symptoms, $\gamma = -.354$, $p = .000$: the more resilience participants reported, more acceptance and less post-traumatic stress symptoms were reported. Acceptance demonstrated a significant negative correlation with PTSD symptoms, $\gamma = -.704$, $p = .000$: participants who reported high acceptance tended to report less post-traumatic stress symptoms. In addition, gender of participants was significantly correlated with resilience, $\gamma = .185$, $p = .029$, and with acceptance, $\gamma = .308$, $p = .000$, which means males reported higher resilience and acceptance than females. Moreover, age of participants was correlated with acceptance significantly, $\gamma = .219$, $p = .009$, implying that the older the participants were, the higher acceptance they reported. Thus, gender and age of participants were controlled in the following analyses.

The effect of resilience and acceptance
Direct effect of resilience on PTSD symptoms
As a result of regression, resilience significantly predicted PTSD symptoms, $R^2 = .135$, $\beta = -.334$, $F(3, 136) = 7.082$, $p = .000$. In other words, the more participants had resilience, less post-traumatic stress symptoms were reported.

Mediating effect of acceptance
The mediating effect of acceptance was analyzed with regression, using SPSS Macro PROCESS (Table 4). Gender and age were con-
Resilience and Acceptance

The Mediating Effect of Acceptance on The Relationship Between Resilience and PTSD Symptoms (N = 140)

<table>
<thead>
<tr>
<th>Variables</th>
<th>β</th>
<th>SE</th>
<th>t</th>
<th>p</th>
<th>95% CI</th>
</tr>
</thead>
<tbody>
<tr>
<td>Resilience</td>
<td>.04</td>
<td>.09</td>
<td>.47</td>
<td>.634</td>
<td>-.14, .23</td>
</tr>
<tr>
<td>Acceptance</td>
<td>-1.49</td>
<td>.15</td>
<td>-10.15</td>
<td>.000</td>
<td>-1.78, -1.20</td>
</tr>
<tr>
<td>Control variables</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gender</td>
<td>2.73</td>
<td>2.88</td>
<td>.95</td>
<td>.345</td>
<td>-2.96, 8.41</td>
</tr>
<tr>
<td>Age</td>
<td>.19</td>
<td>.12</td>
<td>1.68</td>
<td>.096</td>
<td>-.04, .42</td>
</tr>
<tr>
<td>Total effect</td>
<td>-.43</td>
<td>.11</td>
<td>-4.10</td>
<td>.000</td>
<td>-.64, -.22</td>
</tr>
<tr>
<td>Direct effect</td>
<td>.04</td>
<td>.09</td>
<td>.47</td>
<td>.640</td>
<td>-.14, .23</td>
</tr>
<tr>
<td>Indirect effect</td>
<td>-.47</td>
<td>.09</td>
<td></td>
<td></td>
<td>-.66, -.31</td>
</tr>
</tbody>
</table>

Note: CI = Confidence Interval.

Table 4. The Mediating Effect of Acceptance on The Relationship Between Resilience and PTSD Symptoms (N = 140)

The research model was significant, $R^2 = .368, F(3, 136) = 7.082, p = .000$. The direct effect of resilience on post-traumatic stress symptoms was not significant when acceptance was included in the model as a mediating variable, $\beta = .043, SE = .092, t = .470, 95\% CI [-.138, .225]$. However, the total indirect effect of resilience on post-traumatic stress symptoms was significant, having acceptance as a mediation variable, $\beta = -.471, 95\% CI [-.660, -.312]$, which means complete mediating effect of acceptance in the impact of resilience on PTSD symptoms (Figure 1).

Discussion

The aim of the current study was to examine the effect of resilience on post-traumatic stress symptoms of individuals with traumatic experiences and to examine the mediating effect of acceptance on the impact of resilience. As a result of the primary analysis, resilience and acceptance were positively correlated with each other, and PTSD symptoms were negatively correlated with resilience and acceptance. Moreover, gender was examined to see its effect on resilience and acceptance, and age on acceptance. Consequently, gender and age were controlled in the following analyses.

Consistently with previous studies, resilience and acceptance were correlated negatively with post-traumatic stress symptoms (Blackburn & Owens, 2016; Bonanno & Mancini, 2012; Connor & Davidson, 2003; Orsillo & Batten, 2005; Silver et al., 2002). In this study, resilience had a significant effect on individuals’ post-traumatic stress symptoms, indicating that individuals with high resilience had fewer post-traumatic stress symptoms even if they experienced traumatic events, consistently with previous studies (Blackburn & Owens, 2016; Horn et al., 2016; Min et al., 2014). Also, the significant mediating effect of acceptance on the relationship between resilience and post-traumatic stress symptoms was found. In summary, the more resilient the individuals were, the more they accepted their experiences, and consequently, the fewer post-traumatic stress symptoms they were experiencing.

Our findings suggest that resilience should be focused on when the victims of accidents or crimes are assigned for mental health services. Mental health specialists should evaluate the level of victims’ resilience first, and help them strengthen their resilience with diverse strategies. Like in the current study model, resilience can be considered as a trait variable that is developed over the course of a long time. Even though it will not be easy to improve individuals’ resilience within a few sessions of psychological therapy, it is not impossible to make certain changes. For example, one of the Cognitive Behavioral Therapy techniques, cognitive restructuring reference, might be beneficial to the victims of trauma in the way that the newly restructured cognition could help empower the victims (Padesky & Mooney, 2012). In the process, making the best use of the victims’ existing social support network is recommended as well. Moreover, activities such as finding individuals’ strengths and applying these strengths and assets to specific strategies can be helpful to build up their resilience (Padesky & Mooney, 2012). Also, in a previous study, it was suggested that raising resilience might be helpful to prevent individuals from experiencing adverse impacts of traumatic events (Noh & Hong, 2017), which is consistent with the results of the current study.

It is noteworthy that we found acceptance completely mediated...
resilience and post-traumatic stress symptoms. The results of the current study indicate the mechanism behind why resilient individuals are protected from the manifestation of post-traumatic stress symptoms. As acceptance can be considered as a psychological flexibility and a core factor of resilient adjustment for individuals with traumatic events, some researchers discuss acceptance as one of the factors consisting resilience (Thompson et al., 2011). However, other researchers regard resilience as a trait-like psychological factor and acceptance as a cognitive and behavioral factor, which leads to resilience and acceptance being independent from each other, even though they could correlate very significantly (Benetti & Kambourooulos, 2006; Tugade, Fredrickson, & Feldman Barrett, 2004).

In this regard, the current study is meaningful to make the underpinning process of resilience, acceptance, and individuals’ adjustment (e.g., post-traumatic stress symptoms) clear: individuals’ acceptance mediates the impact of resilience on their adjustment. It can be very helpful to emphasize the attitude to accept the internal or external environments, that is, to view their psychological state as temporary status in response to unavoidable experiences. That way, clinical practitioners help clients’ traits such as resilience and acceptance significantly contribute to the lower post-traumatic stress symptoms even when they encounter traumatic events. Even though resilience and acceptance were considered as trait-like variables, many empirical studies have supported the effect of treatment that focuses on improving individuals’ resilience or acceptance (Back, Dansky, Carroll, Foa, & Brady, 2001; Padesky & Mooney, 2012). This can be the rationale of various therapies such as exposure therapy and Acceptance Commitment Therapy, which have been proven effective for the patients with PTSD (Back et al., 2001; King et al., 2013; Taylor et al., 2003).

The current study has several limitations to mention. The study relied on self-report from the individuals with trauma exposure. It can be a very effective way to measure the distress of the affected individuals. At the same time, self-report data can be biased, particularly due to the nature of the trauma, and it is probable that social desirability factored in the reports of the crime victims in the current study.

From a cross-sectional study, which is the case with the current study, we have to be cautious in drawing causal inferences. If possible, future studies should employ various methodologies to strengthen the validity. For example, longitudinal study could add the predicting nature in the investigation of the relationships amongst variables. To better understand the mechanism of resilience and acceptance in regards to post-traumatic symptom experience, homogenizing the type of trauma could enable to compare different relationships according to the traumatic events.

This study aimed to understand the experience of the individuals who had traumatic events such as car accidents, sexual crimes, or attempted murder. The mediating effect of acceptance on the relationship between resilience and adaptation cannot tell us about treatment implications even though we can have an idea about the underpinning process among the related variables. Therefore, future research about the treatment factors or programs that deal with resilience or acceptance can be helpful in providing psychological services for the victims.

Another limitation regards the use of AAQ-II. We used AAQ-II to measure the participants’ acceptance, but the construct measured by this questionnaire was related with cognitive flexibility/ inflexibility toward the surrounding environment (Bond et al., 2011). That was taken into account in this study, but cautious interpretation of the results is required because there exists a subtle difference between the actual construct that was measured and the conventionally regarded concept of “acceptance.” Moreover, because the validation study of Korean version of AAQ-II was not conducted with victim of traumatic events, it leaves a question on the appropriateness of its use with the participants of the current study.

Not all individuals who experience traumatic events are diagnosed with PTSD (APA, 2013; Bryant, 2003). Thus, it is suggested that future studies on the patients with PTSD examine the underpinning mechanisms between resilience and acceptance and how the patients’ adaptation differs depending on the resilience and acceptance. Also, the results might be not applicable to the individuals with multiple or chronic traumas, nor with individuals with other psychological pathologies. According to previous studies, individuals with repeated or long-term traumatic exposure report more impaired outcomes compared to the individuals with a single trauma (Lang & McTeague, 2011; Streeck-Fischer & van der Kolk, 2000). That suggests the presence of other mental disorders.
can affect the role of trauma and re-adjustment after trauma (Held et al., 2017). Therefore, it will be helpful to investigate the role of resilience and acceptance for the long-term adjustment of individuals with chronic or repeated traumas, as well as individuals with other mental pathologies.

The current study investigated 140 victims of various kinds of traumas, both accidents and crimes in Korea. We found the following: resilience had positive effect on individuals’ PTSD symptoms, and acceptance mediated the effect of resilience completely. Resilience as a psychological characteristic plays an important role in individuals’ adjustment, and thus it is important to evaluate individuals’ resilience in helping their adjustment after the adverse events. To help individuals with resilience improve their adjustment even after adverse or traumatic experiences, it is critical to help them accept their circumstance and actual situations flexibly.

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