4-1-2023

Moderating Role of Experiential Similarity on the Relationship between Social Support and Posttraumatic Growth

Avery Lytle
University of Dayton

Moderating Role of Experiential Similarity on the Relationship between Social Support and Posttraumatic Growth

Honors Thesis

Avery Lytle

Department: Psychology

Advisor: Lucy Allbaugh, Ph.D.

April 2023

Moderating Role of Experiential Similarity on the Relationship between Social Support and Posttraumatic Growth

Honors Thesis
Avery Lytle
Department: Psychology
Advisor: Lucy Allbaugh, Ph.D.
April 2023

Abstract

Background and objectives: Trauma exposure is associated with negative outcomes like posttraumatic stress disorder. However, not everyone reports distress; resilience is common. Some even report improved psychological functioning following trauma, termed posttraumatic growth (PTG). Numerous factors are implicated in PTG development, many related to the cognitive processing of the event. Outside of cognitive factors, one of the strongest promoters of PTG is social support, but less is known about what types of support are most facilitative. Of potential importance is experiential similarity, or the extent to which the support person has experienced shared elements of one's trauma. The present study examined whether social support with higher experiential similarity was more strongly associated with PTG than support without experiential similarity. **Methods**: Bootstrapping procedures in the PROCESS macro for SPSS tested experiential similarity as a moderator of the relation between social support satisfaction and PTG. Six models were tested, each with total PTG or one of the five domains of growth (new possibilities, relating to others, personal strength, spiritual change, and appreciation for life) as outcomes. **Results**: Only when considering new possibilities as the outcome was experiential similarity a significant moderator, such that low levels of similarity at high levels of social support were negatively associated with growth. Similarity was not a moderator in the other five models. When direct effects were examined, both social support and total growth were negatively associated with total growth as well as the domains of relating to others and new possibilities. No significant relationships were found in the remaining three domains. **Conclusions**: In this sample of college undergraduates, experiential similarity does not appear to be a critical aspect of social support that is influential of growth. Future research should determine whether this is sample-specific, or whether other factors such as demographic similarity might be more facilitative of growth.

Keywords: Posttraumatic growth, social support, experiential similarity

Dedication

This thesis is dedicated to my family whose encouragement helped me throughout this project. I would also like to dedicate this thesis to my advisor Dr. Lucy Allbaugh, whose guidance and support were essential to my success.

University *of* Dayton

Table of Contents

Introduction

Exposure to traumatic events is relatively common, with the lifetime prevalence of exposure varying depending on the traumatic event experienced (Kessler et al., 2000). Trauma exposure has a high association with posttraumatic stress disorder, with the lifetime prevalence of PTSD varying from 7.8% up to 8.3% (PTSD; Kessler et al., 1995; Kessler et al., 2000). PTSD and trauma exposure have been found to increase an individual's likelihood of experiencing other psychiatric disorders from 30% to 80%. Although most people experience some form of trauma during their lifetime (Kilpatrick et al., 2013), not every individual experiences negative outcomes. Many instead would be classified as resilient or the ability for an individual to participate in a purposeful life after experiencing trauma (Bonanno, 2005; Tedeschi and Calhoun, 2004).

Some individuals report experiencing a unique form of resilience, called posttraumatic growth. Although there is no objective measure for it, the majority of people report experiencing growth after trauma (PTG; Linley and Joseph, 2004; Tedeschi and Calhoun, 1996; 2004). PTG is defined as an individual’s perceived improvement in psychological well-being as a result of experiencing traumatic events (Tedeschi and Calhoun, 2004). PTG is conceptualized as a sense of improved functioning in one or more of five domains: personal strength, spiritual change, relating to others, new possibilities, and appreciation for life (Tedeschi and Calhoun, 1996; 2004). Although findings are mixed, there is understood to be an orthogonal relationship between PTG and posttraumatic stress, meaning that they can, but don’t necessarily need to, co-occur (Park et. al., 2008). Research also revealed how individuals can experience growth in some domains and deprecation in others. For example, some may experience questioning in

faith in order to discover a strengthened sense of spirituality (Tedeschi and Calhoun, 2004; Brooks et al., 2017). These findings reveal how PTG does not indicate an absence of distress but instead the growth and perspective gained from the trauma experienced.

A significant portion of the PTG literature has focused on a range of cognitive factors that positively influence growth including increased deliberate rumination, increased positive coping strategies (e.g. positive reappraisal), increased active emotions, the destruction of core beliefs, and a heightened feeling of present and future-oriented control (Calhoun and Lawrence, 2000; Cann et al., 2010; Park et al., 2008). These cognitive processes help to rebuild the worldview that was shattered by traumatic experiences and facilitate future growth (Brooks et al., 2017; Cann et al., 2010; Linley and Joseph, 2004; Tedeschi and Calhoun, 2004; Wamser-Nanney et al., 2018). Additional factors that promote growth include event centrality, sharing of negative emotions, resilience, and personality traits (Boals and Schuettler, 2011; Henson et al., 2021; Nisa and Rizvi, 2016). In addition to the multiple factors that promote growth, it has been established that social support is crucial for fostering PTG (Scrignaro et al., 2011; Waller et al., 2021).

Research has documented a strong association between social support and trauma recovery, and between social support and PTG in particular, in a range of populations (Prati & Pietrontoni, 2009; Tedeschi and Calhoun, 2004). Social support has had both direct and indirect influences on the promotion of PTG. For example, some studies have shown how social support plays a moderating role in the relationship between PTG and factors such as symptom severity (Feng et al., 2022). On the other hand, types of social support including support from family, friends, significant others, and total support have

been found to have a direct positive correlation with PTG (Nisa and Rizvi, 2016; Tanriverd et al., 2012).

When specifically discussing PTG as an outcome of support, one study found perceived social support from friends and family to be positively associated with the development of PTG in adult cancer patients (Nisa and Rizvi, 2016). Another study (Zhou, Wu, and Zhen, 2016) found a positive and direct relationship between social support and PTG in middle school student survivors of an earthquake. In this study, the given social support provided adolescents with emotional support, increased positive emotions, improved interpersonal relationships, and increased the likelihood of emotional disclosure, all of which facilitated growth. Additionally, a study by Tian and Solomon (2020) found that partner-supported communication moderated the relationship between grief and posttraumatic growth in women following a miscarriage such that grief had a higher association with PTG when partner-supported communication was high. This relationship was also moderated by meaning reconstruction of bereavement, which is similar to cognitive reconstruction experienced after trauma. This study does not directly show social support or experiential similarity but studies a group of supporting partners that share in the experience of loss with the assumption that the partners had similar experiences as the mothers. Although the importance of social support in developing growth has been robustly supported, less is known about the most optimal forms of support for fostering PTG.

While it has not been tested in relation to PTG specifically, some work suggests the importance of experiential similarity, or the extent to which a support person has had similar prior life experiences to the support recipient, on recovery from distress. Research

has revealed how sharing experiences of trauma with someone who had gone through similar circumstances helped to normalize an individual's reactions and feelings. This allowed participants to be more comfortable sharing their narratives, which in turn aided in the reexamination of pre-trauma cognitive schema (Ramos et al., 2018). These studies help to reveal how the level of PTG experienced may be enhanced by the support system having strong knowledge of the supported person's experiences (Calhoun and Tedeschi, 2013).

Many studies do not test specifically for similarity in social support but can give us insight into how social support is impacted by similar experiences. One such study examined the relationship between social support and PTG related to living in the United States through the COVID-19 pandemic. This research investigated the relationships between psychological distress, perceived social support, and PTG. The findings revealed that social support moderated the relationship between psychological distress and PTG such that psychological distress had a higher association with PTG when perceived social support was reported. Researchers hypothesized that this may have been due to the participants being able to discuss and share experiences related to the shared stressor of the pandemic though the degree of experiential sameness was not systematically assessed (Northfield & Johnston, 2021).

The importance of experiential similarity has also been shown in other areas of recovery literature including a randomized controlled trial study by Ramos et al. (2018) which examined the differences of reported PTG in individuals diagnosed with breast cancer who participated in professionally led support groups that focused on the facilitation of PTG compared to individuals who only attended three individual

assessments. This study found that group intervention had a higher positive correlation with PTG compared to the control group. The researchers hypothesized that this was due to the participant's higher amount of encouragement to disclose their experience, sensitivity, and openness to learning. The researchers also implied that support from others with similar backgrounds helped to reduce the participant's distressing emotions that would impede possible growth. Tedeschi and Calhoun (2004) also noted the importance of support groups to individuals who were experiencing grief as the members' increased ability to understand and sympathize with their circumstances allowed individuals to reveal more of their experiences more freely. Although these studies do not look at experiential similarity as an independent variable, they support the idea that social support hallmarked by experiential similarity (such as support groups and group therapy), can lead to increases in resilience, well-being, and a reduction of symptoms.

Other evidence for the importance of experiential similarity comes from outside of the trauma literature and demonstrates that experiential similarity can help individuals cope with stress. Two separate longitudinal studies by Suitor, Karl, and Shirley (1995) directly tested the effect of similarity on the strength of social support and level of interpersonal stress. The first study included adults who were primary caregivers to seniors with dementia and the second study included adult women enrolled in college. The researchers tested for two types of similarity: experiential and structural, or the extent to which the support person shares similar social structures and positions. Both studies found that support systems with experiential similarity were more likely to be sources of emotional support and less likely to cause interpersonal stress in the

supporting relationship. The researchers explained these findings by stating that experiential similarity helps to increase empathetic understanding, allowing the supporting person to be better prepared to assist the stressed individual in working through their emotions. An additional study looked at the growth experienced by caretakers of individuals with severe mental health and dementia. This study highlights the strengths of peer support groups that are a great source of support for individuals with similar experiences. Experiential similarity was found to make these support groups unique as it offered a genuine understanding of the individual's experience, fostered open expression of emotions, and helped teach successful coping mechanisms (Greenwood and Nan, 2013). Given the importance of emotional processing to achieving PTG, experiential similarity might also be critical to fostering this outcome.

Methods

Participants

Participants were undergraduate students at the University of Dayton. A total of 253 participants were recruited for this study, 194 were female (76.7%), 55 were male (21.7%) and four identified as nonbinary/third gender (1.5%). The sample was demographically representative of the University of Dayton population; 203 participants were Caucasian (80.2), 22 were Black/African American (8.7%), 15 were LatinX (5.9%), six were Asian (2.4%), five were mixed raced (2%), one was Pacific Islander (.4%), and one did not disclose (.4%). The mean age at the time of completion was 19.2 years of age (SD = 3.07 years, range = 17-56 years). The family income of the participants ranged from less than 50 thousand a year (6%), between 50 and 100 thousand a year (20.3%), between 100 and 150 thousand a year (20.7%), between 150 and 200 thousand a year

(8.8%), more than 200 thousand a year (5.2%), some unsure (16.1%), and others did not disclose (22.9%). The majority of the participants were heterosexual (82.2%) but some identified as bisexual (10.7%), gay/lesbian (2.8%), other (2%), and some did not disclose (2.4%).

Procedures

The present study examined the relationship between perceived social support and experience of PTG (including overall growth and growth within the five domains) as moderated by experiential similarity of the support person(s), in a sample of trauma survivors. It was hypothesized that experiential similarity would moderate the relationship between social support and PTG such that social support would be more highly associated with PTG in the context of high experiential similarity as compared to low similarity. This study and its recruitment mechanisms were approved by the University of Dayton's institutional review board. A partial course credit was offered to students needing to meet research participation requirements through the university's research system. The participants who volunteered provided their consent online via the web-based survey and were then sent a link to a Qualtrics survey where they completed their study measures. The measures used were part of a larger, ongoing study examining predictors of posttraumatic outcomes, and the present study uses a selection of these measures. The full set of surveys was estimated to take less than 60 minutes to complete. Responses were anonymous at the time of submission.

Measures

A demographics questionnaire, created by the research team, was used to help describe and examine individual differences within the sample. Participants were asked to

report their gender, race/ethnicity, parental education, and household income; the latter two items were used to assess the participants' socioeconomic status.

The LSC-R 30-item was used to assess multiple types of traumatic events the participants had experienced. Each of the thirty items was answered with a "yes" or "no" response to the described event. Additional items from the Life Events Checklist for DSM-5 (LEC-5; Weathers et al., 2013), Trauma History Questionnaire (THQ; Hooper et al., 2011), Brief Trauma Questionnaire (BTQ; Schnurr et al., 1999), and the Trauma History Screen (THS; Carlson et al., 2005) were included to assess a broader range of potential traumatic exposures. These questions were formatted to be similar to those on the LSC-R and additional questions were added to assess for peritraumatic context.

Perceived growth experienced after trauma exposure was assessed using a public domain measure called the Post-Traumatic Growth Inventory (PTGI). The PTGI is widely used and is the only existing measure of PTG (Tedeschi & Calhoun, 1996). The 42-item scale within the PTGI measured overall growth and depreciation within an individual, as well as growth and depreciation within the five domains of personal strength, spiritual growth, connection to others, new possibilities, and appreciation for life. For the proposed study, only the growth items were used. Each item was answered using a 6-point Likert scale ranging from a score of 0 (*I did not experience this change because of my crisis*) to 5 (*I experienced this change to a very great degree because of my crisis*). The PTGI has a high internal consistency with a reported alpha of .90 and test-retest reliability of .71 (Tedeschi & Calhoun, 1996). Additionally, high internal consistency has been reported for all five factors measured which include personal strength (.72), spiritual change (.85), connection to others (.85), new possibilities (.84),

and appreciation for life (.67) (Tedeschi & Calhoun, 1996). A study done by Shakespeare-Finch and Martinek (2013) demonstrates the PTGI's content validity. In this experiment, the participants filled out the PTGI and were then interviewed by a study author to interpret the items that they had fully endorsed or did not endorse at all. The statements made by participants in the interviews revealed that the PTGI was a true measure of growth in all five domains.

Researchers used the Social Support Questionnaire - Short Form (SSQ6; Sarason et al., 1987) to measure the number of perceived social supports in an individual's life, and the degree of satisfaction the individual received from said social support(s). The SSQ6 is a widely used and reliable measure of social support. An additional item was added by the researchers to assess the extent to which support received during a traumatic event came from someone with experiential similarity. For each item, the participants listed the individuals who provided them with social support in the situation described as well as rated the satisfaction of the support received by the listed individual. Four studies conducted by Sarason et al. (1983) revealed the SSQ's high reliability (.97) in measuring and understanding the relationship between social support and many other factors.

The proposed moderation models were tested using bootstrapping procedures available in the PROCESS macro for SPSS (Hayes, 2017). Specifically, Model 1 was used, and six models were tested, each with overall perceived social support as the independent variable and either total posttraumatic growth or one of the posttraumatic growth domains as the dependent variable. In each model, degree of experiential similarity was tested as the moderator of the social support – posttraumatic growth link.

Results

Table 1 displays descriptive statistics and Pearson correlations for all variables. Six moderation models were tested using the PROCESS macro for SPSS. Model 1 was selected to test single moderation. Data were analyzed with total perceived social support as the predictor variable in each model predicting either total posttraumatic growth or one of its five domains which include relating to others, new possibilities, personal strength, spiritual change, and appreciation for life. Experiential similarity was the moderator in each model. Individual growth domains were tested so that outcomes could be explored individually.

The first model, considering total PTG as the outcome, was not predicted by the full model of perceived social support and similarity (R^2 = .06; F = 4.51, p = .004). No significant interaction was found between perceived social support and similarity (b = 2.13; t = 1.85; CI -.14 - 4.39). A direct effect for perceived social support was found (b = -10.76; t = -2.29; CI -19.99 - -1.53), as well as a direct effect for similarity (b = -6.92; t = -2.69; CI -11.97 - -1.87).

The second model, considering the PTG domain of relating to others, was not predicted by the full model of perceived social support and similarity (R^2 = .06; F = 4.91, p = .003). No significant interaction was found between perceived social support and similarity (b = .75; t = 1.74; CI -.09 - 1.61). A direct effect of perceived social support was found (b = -4.19; t = -2.39; CI -7.66 - -.73), as well as a direct effect for similarity (b = -2.44; t = -2.54; CI -4.33 - -.54).

The third model, considering the PTG domain of new possibilities, was significantly predicted by the full model of perceived social support and similarity (R^2 =

.05; F = 4.01, p = .01). Q significant interaction was found between perceived social support and similarity (b = .75; t = 2.39; CI .13 - 1.37). A direct effect of perceived social support was found (b = -3.25; t = -2.54; CI -5.77 - -.73), as well as a direct effect for similarity (b = -2.14; t = -3.07; CI -3.52 - -.77).

The fourth model, considering the PTG domain of personal strength, was not predicted by the full model of perceived social support and similarity (R^2 = .02; F = 1.24, p = .29). No significant interaction was found between perceived social support and similarity (b = .46; t = 1.72; CI -.07 - .99). No direct effect of perceived social support was found (b = -2.08; t = -1.89; CI -4.25 - .09), or for similarity (b = -.97; t = -1.63; CI -2.14 - .2).

The fifth model, considering the PTG domain of spiritual change, was not predicted by the full model of perceived social support and similarity (R^2 = .06; F = 4.77, p = .003). No significant interaction was found between perceived social support and similarity (b = -.04; t = -.29; CI -.33 - .24). No direct effect of perceived social support was found (b = .14; t = .23; CI -1.02 - 1.29), or a direct effect for similarity (b = -.44; t = -1.38; CI -1.06 - .19).

The sixth model, considering the PTG domain of appreciation for life, was not predicted by the full model of perceived social support and similarity (R^2 = .05; F = 4.11, p = .007). No significant interaction was found between perceived social support and similarity (b = .12; t = .59; CI -.28 - .52). No direct effect of perceived social support was found (b = -1.29; t = -1.57; CI -2.91 - .33), or a direct effect for similarity (b = -.54; t = -1.22; CI -1.41 - .33).

Discussion

PTSD, or distress experienced after trauma, has been widely studied and much is understood about its phenomenology within the psychology community (Kessler et al., 1995; Kessler et al., 2000). Only recently have researchers investigated the resilience individuals experience after trauma in the form of PTG (Linley and Joseph, 2004; Tedeschi and Calhoun, 1996; 2004). Studies have found multiple factors that promote growth, one of the most important being social support (Nisa and Rizvi, 2016; Prati & Pietrontoni, 2009; Tanriverd et al., 2012; Tedeschi and Calhoun, 2004). Recent literature reveals how the role of social support is impacted by similar experiences by comparing the success rates of group therapy vs. individual therapy (Ramos et al., 2018). However, little is known about the impact social support between individuals with experiential similarity has on promoting growth. This study explored the moderating role of experiential similarity on the relationship between social support and PTG.

Due to the abundance of research on the benefits of shared experiences in the therapeutic setting (Greenwood and Nan, 2013; Nisa and Rizvi, 2016; Northfield & Johnston, 2021; Ramos et al., 2018; Suitor et al., 1995), the study investigators hypothesized that experiential similarity would moderate the relationship between social support and PTG. Counter to expectations, the results revealed that experiential similarity was only found to be a moderator in the domain of new possibilities such that low levels of similarity at high levels of social support were negatively associated with growth. Experiential similarity was not found to moderate any of the other models tested.

A direct negative association between experiential similarity and growth was found in the total growth score as well as domains of relating to others, and new

possibilities. Counter to expectation, direct effects revealed that social support was negatively associated with total growth and the growth domains of relating to others and new possibilities. These findings are not consistent with prior research (Scrignaro et al., 2011; Waller et al., 2021). This study helps to expand the PTG literature as it is one of the only to use a college sample to investigate this topic. Future research should be conducted to test the reliability of the study's results within diverse samples. In addition, researchers should examine the trauma types associated with participants' support scores. This data could be used to understand how trauma types affect the likelihood of experiencing social support with individuals who share similar experiences.

Some differences between this and other studied samples can be explained using a multitude of reasons. For one, the study did not consider the type of trauma experienced by the participants. This is important to note as it may be harder to find support from individuals with similar experiences if the traumatic event is uncommon. Another reason may be due to the demographics of the study sample. A majority of the surveys were distributed to freshmen in their first semester of college. These freshmen were enrolled in introductory psychology courses that required research participation. Due to this, 68.4% of the participants were made up of freshman-aged students (17-19). This is a unique age range within the college population as it marks a transitional period into young adulthood. During this time, the new students were separated from family and friends and forced to create new support networks. If the support systems within this specific sample were fractured due to the said transitional period, the hypothesis could not be accurately tested. The age range of the participants should be considered when reviewing the results,

as the disturbance of the participants' support systems and increased distress could have affected the outcomes.

Several limitations within this study should be considered including the homogeneity of the sample. The majority of the sample was female (76.7%), Caucasian (80.2%), heterosexual (82.2%), had a family income between 110-150 thousand a year (20.7%), and college-aged (mean age of 19.2 years). Although the findings may help researchers understand the demographic tested, they are not generalizable across populations. Additional research should be done on participants of different socio-demographic groups. As with any self-report measure, it is important to consider the validity of the participant's answers within the SSQ and PTGI. This study heavily relied on the PTGI to measure the participant's growth, even though the accuracy of said measure has been criticized (Frazier et al., 2009). Although the PTGI is often used to calculate growth, limited studies have tested the validity of these measures for assessing change. Another limitation of this study is the use of a single item to assess similarity. Future researchers should develop a multi-item or multidimensional measure to help better understand these relationships.

Although the hypothesis stated that the results may have implications in the clinical setting, the unexpected findings within the study sample reveal the need for more research on this topic. Future research should be conducted to test the reliability of these measures across populations and to expand the literature in regard to experiential similarities' impact on growth.

Table 1. Descriptive statistics and Pearson correlations for all study variables

Variable (Mean, SD)	1	2	3	4	5	6	7	8
1. PTGI (49.31, 23.84)	1.00	-.136*	-.169**	.897**	.858**	.838**	.654**	.833**
2. SSQ (1.87, .87)		1.00	.236**	-.164*	-.089	-.053	-.060	-.194**
3. Similarity Q (3, 1.38)			1.00	-.167**	-.142*	-.026	-.236**	-.126*
4. PTGI (RO) (17.16, 9.04)				1.00	.646**	.644**	.494**	.717**
5. PTGI (NP) (10.2, 6.49)					1.00	.689**	.520**	.607**
6. PTGI (PS) (10.43, 5.48)						1.00	.454**	.641**
7. PTGI (SC) (3.37, 3.01)							1.00	.513**
8. PTGI (AL) (8.24, 4.19)								1.00

**p < .01; *p < .05

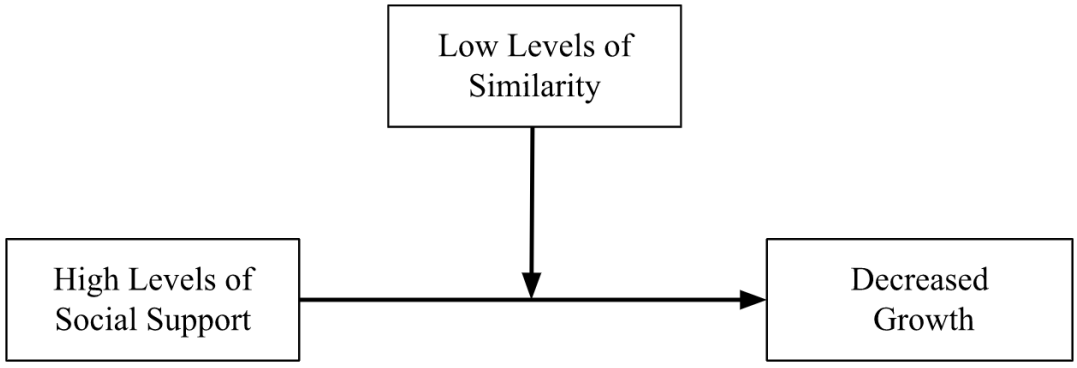

Figure 1. Moderation model

References

Boals, A., & Schuettler, D. (2011). A double-edged sword: Event centrality, PTSD and posttraumatic growth. *Applied Cognitive Psychology*, *25*(5), 817-822. https://doi.org/10.1002/acp.1753

Bonanno, G. A. (2005). Resilience in the Face of Potential Trauma. *Current Directions in Psychological Science*, *14*(3), 135-138. https://doiorg.libproxy.udayton.edu/10.1111/j.0963-7214.2005.00347.x

Brooks, M., Graham-Kevan, N., Lowe, M., & Robinson, S. (2017). Rumination, event centrality, and perceived control as predictors of post-traumatic growth and distress: The Cognitive Growth and Stress model. *British Journal of Clinical Psychology*, *56*(3), 286-302. https://doi.org/10.1111/bjc.12138

Calhoun, L. G., Cann, A., Tedeschi, R. G., & McMillan, J. (2000). A correlational test of the relationship between posttraumatic growth, religion, and cognitive processing. *Journal of Traumatic Stress*, *13*(3), 521 527. https://doi.org/10.1023/A:1007745627077

Calhoun, L. G., & Tedeschi, R. G. (2013). *Posttraumatic growth in clinical practice* [Bibliographies Non-fiction]. Routledge.

Cann, A., Calhoun, L. G., Tedeschi, R. G., & Solomon, D. T. (2010). Posttraumatic growth and depreciation as independent experiences and predictors of well-being. *Journal of Loss and Trauma*, *15*(3), 151-166. https://doi.org/10.1080/15325020903375826

Carlson, E. B., Smith, S. R., Palmieri, P. A., Dalenberg, C., Ruzek, J. I., Kimerling, R., Burling, T. A., & Spain, D. A. (2011). Development and validation of a brief self-

report measure of trauma exposure: The trauma history screen. *Psychological Assessment*, *23*(2), 463– 477. https://doi.org/10.1037/a0022294

Feng, Y., Zhou, X., Liu, Q., Deng, T., Qin, X., Chen, B., & Zhang, L. (2022). Symptom severity and posttraumatic growth in parents of children with autism spectrum disorder: The moderating role of social support. *Autism Research*, *15*(4), 602-613. https://doi.org/10.1002/aur.2673

Frazier, P., Tennen, H., Gavian, M., Park, C., Tomich, P., & Tashiro, T. (2009). Does self-reported posttraumatic growth reflect genuine positive change? *Psychological Science*, *20*(7), 912-919. https://doi.org/10.1111/j.1467-9280.2009.02381.x

Greenwood, N., Habibi, R., Mackenzie, A., Drennan, V., & Easton, N. (2013). Peer support for carers: A qualitative investigation of the experiences of carers and peer volunteers. *American Journal of Alzheimer's Disease and Other Dementias*, *28*(6), 617-626. https://doi.org/10.1177/1533317513494449

Hayes, A. F. (2017). Introduction to mediation, moderation, and conditional process analysis: A regression-based approach. Guilford publications. Heitzmann, C. A., & Kaplan, R. M. (1988). Assessment of methods for measuring social support. *Health Psychology*, *7*(1), 75-109. https://doi.org/10.1037/0278-6133.7.1.75

Henson, C., Truchot, D., & Canevello, A. (2021). What promotes post traumatic growth? A systematic review. *European Journal of Trauma & Dissociation*, *5*(4). https://doi.org/10.1016/j.ejtd.2020.100195 Hooper, L. M., Stockton, P., Krupnick, J., & Green, B. L. (2011). The development, use, and psychometric properties of the trauma history questionnaire. *Journal of Loss and Trauma*, 16, 258-283. https://doi.org/10.1080/15325024.2011.572035

Kilpatrick, D. G., Resnick, H. S., Milanak, M. E., Miller, M. W., Keyes, K. M., & Friedman, M. J. (2013). National estimates of exposure to traumatic events and PTSD prevalence using DSM-IV and DSM-5 criteria. *Journal of Traumatic Stress*, *26*(5), 537-547. https://doi.org/10.1002/jts.21848

Kira, I. A., Aboumediene, S., Ashby, J. S., Odenat, L., Mohanesh, J., & Alamia, H. (2013). The dynamics of posttraumatic growth across different trauma types in a Palestinian sample. *Journal of Loss and Trauma*, *18*(2), 120-139. https://doi.org/10.1080/15325024.2012.679129

Linley, P. A., & Joseph, S. (2004). Positive change following trauma and adversity: A review [Article]. *Journal of traumatic stress*, *17*(1), 11-21.

Northfield, E.-L., & Johnston, K. L. (2021). 'I get by with a little help from my friends': Posttraumatic growth in the COVID-19 pandemic. *Traumatology*. https://doi.org/10.1037/trm0000321

Park, C. L., Aldwin, C. M., Fenster, J. R., & Snyder, L. B. (2008). Pathways to posttraumatic growth versus posttraumatic stress: Coping and emotional reactions following the September 11, 2001, terrorist attacks. *American Journal of Orthopsychiatry*, *78*(3), 300-312. https://doi.org/10.1037/a0014054

Prati, G., & Pietrantoni, L. (2009). Optimism, social support, and coping strategies as factors contributing to posttraumatic growth: A meta-analysis. *Journal of Loss and Trauma*, *14*(5), 364-388. https://doi-org.libproxy.udayton.edu/10.1080/15325020902724271

Sarason, I. G., Levine, H. M., Basham, R. B., & Sarason, B. R. (1983). Assessing social support: The social support questionnaire. *Journal of Personality and Social Psychology*, *44*(1), 127-139. https://doi.org/10.1037/0022-3514.44.1.127

Schnurr, P., Vielhauer, M., Weathers, F., & Fiedler, M. (1999). The brief trauma questionnaire. White River Junction VT: National Center for PTSD

Scrignaro, M., Barni, S., & Magrin, M. E. (2011). The combined contribution of social support and coping strategies in predicting post-traumatic growth: A longitudinal study on cancer patients. *Psycho-Oncology*, *20*(8), 823-831. https://doi.org/10.1002/pon.1782

Shakespeare-Finch, J., Martinek, E., Tedeschi, R., & Calhoun, L. (2013). A Qualitative Approach to Assessing the Validity of the Posttraumatic Growth Inventory [Article]. *Journal of Loss & Trauma*, *18*(6), 572-591. https://doi.org/10.1080/15325024.2012.734207

Tanriverd, D., Savas, E., & Can, G. (2012). Posttraumatic growth and social support in Turkish patients with cancer. *Asian Pacific Journal of Cancer Prevention*, *13*(9), 4311-4314.

Nisa, S. U., & Rizvi, T. (2016). Relationship of social support, coping strategies and personality traits with posttraumatic growth in cancer patients. *International Journal of Research in Economics and Social Science*, *6*(4), 105-114.

Ramos, C., Costa, P. A., Rudnicki, T., Marôco, A. L., Leal, I., Guimarães, R., . . . Tedeschi, R. G. (2018). The effectiveness of a group intervention to facilitate posttraumatic growth among women with breast cancer. *Psycho-oncology*, *27*(1), 258-264. https://doi.org/10.1002/pon.4501

Suitor, J. J., Karl, P., & Shirley, K. (1995). When Experience Counts: The Effects of Experiential and Structural Similarity on Patterns of Support and Interpersonal Stress [research- article]. *Social Forces*, *73*(4), 1573-1588. https://doi.org/10.2307/2580459

Tedeschi, R. G., & Calhoun, L. G. (1996). The Posttraumatic Growth Inventory: Measuring the positive legacy of trauma. *Journal of Traumatic Stress*, *9*(3), 455-472. https://doi.org/10.1002/jts.2490090305

Tedeschi, R. G., & Calhoun, L. G. (2004). Target Article: 'Posttraumatic Growth: Conceptual Foundations and Empirical Evidence'. *Psychological Inquiry*, *15*(1), 1-18. https://doi.org/10.1207/s15327965pli1501_01

Tian, X., & Solomon, D. H. (2020). Grief and post-traumatic growth following miscarriage: The role of meaning reconstruction and partner supportive communication. *Death Studies*, *44*(4), 237-247. https://doi-org.libproxy.udayton.edu/10.1080/07481187.2018.1539051

Waller, A., Paganini, C., Andrews, K., & Hutton, V. (2021). Trust and a sense of safety in the group: The benefits of professionally-led support groups in eating disorders. *European Journal of Psychotherapy & Counselling*. https://doi.org/10.1080/13642537.2021.2000462

Wamser-Nanney, R., Howell, K. H., Schwartz, L. E., & Hasselle, A. J. (2018). The moderating role of trauma type on the relationship between event centrality of the traumatic experience and mental health outcomes. *Psychological Trauma: Theory, Research, Practice, and Policy*, *10*(5), 499-507. https://doi.org/10.1037/tra0000344

Weathers, F. W., Blake, D. D., Schnurr, P. P., Kaloupek, D. G., Marx, B. P., & Keane, T. M. (2013). *The Life Events Checklist for DSM-5 (LEC-5) – Extended.* [Measurement instrument].

Wolfe, J., Kimerling, R., Brown, P., Chrestman, K., & Levin, K. (1997). *The life stressor checklist-revised (LSC-R)* [Measurement instrument]. Available from http://www.ptsd.va.gov

Zhou, X., Wu, X., & Zhen, R. (2017). Understanding the relationship between social support and posttraumatic stress disorder/posttraumatic growth among adolescents after Ya'an earthquake: The role of emotion regulation. *Psychological Trauma: Theory, Research, Practice, and Policy, 9*(2), 214–221. https://doi-org.libproxy.udayton.edu/10.1037/tra0000213