Published in final edited form as:

J Aggress Maltreat Trauma. 2016 ; 25(3): 286–304. doi:10.1080/10926771.2015.1079286.

Posttraumatic Growth and Sexual Violence: A Literature Review

Emilio Ulloa, Monica L. Guzman, Marissa Salazar, and Cassandra Cala

Department of Psychology, San Diego State University, San Diego, California, USA

Abstract

Posttraumatic growth (PTG) is the positive psychological growth that a person might experience after enduring a traumatic event. PTG is a relatively new area of research identified by researchers because it represents a shift in thinking. Rather than focusing on the negative consequences of trauma, it explores the potential for positive outcomes associated with trauma. Although PTG is well documented across different types of traumas, it is unclear how this kind of growth stems from sexual violence, specifically. This review provides an overview of the literature concerning PTG that is associated with sexual violence. Results across the literature indicate that sexual violence is consistently associated with PTG. However, given the inconsistency in research designs, assessment, and operational definitions used to study PTG, many researchers suggest that it might be difficult to determine how and when PTG occurs. This study provides a literature review of the research on PTG in the aftermath of sexual violence. Important implications for future directions and trauma-based therapy are discussed and include the identification of relevant predictors, the importance of context, and how service providers might benefit from a better understanding of PTG.

Keywords

Positive adjustment; psychological growth; resilience; sexual assault victims; sexual violence

Sexual violence, defined as any sexual act perpetrated against someone's will (Centers for Disease Control and Prevention, National Center for Injury Prevention and Control, 2002), is a major public health concern, in part due to the detrimental physical and psychological consequences victims of such violence typically experience. Studies have consistently reported that experiencing sexual violence can have many detrimental effects, including, but not limited to, depression and posttraumatic stress disorder (PTSD; Kleim & Ehlers, 2009). Although negative outcomes associated with sexual violence are typically the focus of research in this area, recently, the potential for positive outcomes associated with this type of trauma have been explored. Researchers have found that although survivors of sexual violence and other forms of trauma are negatively affected, there is also room for resulting psychological growth (Tedeschi & Calhoun, 2004). The idea that one can experience positive outcomes as a result of a traumatic experience is not new. However, until recently, scientists had neither devoted much attention to studying the potential for positive growth in the aftermath of trauma, nor had they agreed on a term to describe the phenomenon.

Collaborators Tedeschi and Calhoun are considered by many to be the founding fathers of posttraumatic growth (PTG), and have conducted extensive research on growth after trauma. They coined the term PTG to describe the positive growth that occurs “by virtue of having struggled a highly stressful and challenging life circumstance” (Tedeschi & Calhoun, 1995; Tedeschi, Park, & Calhoun, 1998). Understanding how humans psychologically respond to adversity has been a mainstay of the discipline and largely a function of a problem-based theoretical approach. For example, the study of PTSD focuses on understanding the trauma as a problem that negatively affects mental health, and works to identify ways to facilitate resilience, or a return to baseline. However, this theoretical approach ignores the possibility to thrive (which moves beyond resiliency to further improvement of life) in the aftermath of trauma. PTG has its theoretical roots in positive psychology, which focuses on understanding and identifying ways to live a better life—in other words, how to thrive.

Although they were the first to operationally define PTG, research focused on positive growth after trauma has increased in recent years (see Tedeschi et al., 1998). The consensus among researchers who study PTG is that this kind of growth can be described as “a significant beneficial change in cognitive and emotional life beyond previous levels of adaptation, psychological functioning, or life awareness” (Tedeschi & Calhoun, 2004, p. 1). Tedeschi et al. noted that growth is not to be confused with resilience, defined by Steele and Kuban (2011) as the innate positive psychological and emotional attributes an individual has. Additionally Tedeschi and his colleagues (2004) noted that a clear distinction between growth and “positive illusions” is necessary. The authors described the former as a more permanent change in persona, whereas the latter can be described as a distortion of the facts or an altered perception of the traumatic event (Taylor & Armor, 1996), which in that case, according to Tedeschi and colleagues (2004), would not reflect true growth.

Growth after trauma has been documented across many different types of traumatic events, including surviving cancer and HIV (Sherr et al., 2011; Yi, 2011), experiencing military combat stress (Tedeschi, 2011), suffering a terrorist attack (Milam, Ritt-Olson, Tan, Unger, & Nezami, 2005), surviving a natural disaster (Hafstad, Gil-Rivas, Kilmer, & Raeder, 2010), and across violence-related traumas such as interpersonal violence, child abuse, dating and domestic violence, and sexual abuse in childhood (Anderson, Renner, & Danis, 2012; Kunst, Winkel, & Bogaerts, 2010; Lev-Wiesel, Amir, & Besser, 2004; Shakespeare-Finch & Armstrong, 2010). Thus, it should not be surprising that studies focused specifically on psychological growth after the experience of sexual violence among adults are even scarcer.

According to the National Intimate Partner and Sexual Violence Survey (2014), more than 23 million women in the United States reported being victims of rape, and 43.9% reported being victims of some form of sexual assault in their lifetime. Furthermore, the FBI estimates only about 37% of rapes are actually reported to police, so it is possible that the actual number of rapes could, and most likely are, exponentially larger. In addition, sexual violence is the only form of violence that puts the victim at risk for developing a HIV or sexually transmitted infections directly or indirectly (Heise, Ellsberg, & Gottemoeller, 1999). Sexual violence clearly has relatively unique negative implications for victims, compared to other types of violence and trauma, and it could be that the implications for psychological growth are equally unique. Sexual violence differs significantly from other

forms of violence in that, unlike other forms of violence, the feelings of shame and embarrassment as well as the perceived stigma associated with being a victim of sexual assault might have implications for the recovery process. It is precisely this potential shame, embarrassment, and perceived societal implications associated with sexual trauma that could either make psychological growth more possible or could shape the types of growth that might occur. It is plausible that sexual trauma has its most profound effects on the psyche as opposed to the physical body, and that those effects on the psyche are potentially longer lasting; in that way, there might be more room for psychological growth compared to physical or even psychological trauma. As well, the nature of sexual assault has been perceived as a function (to a significant extent) of societal maladies. In other words, survivors might come to believe that institutional and societal misogyny and sexism are partly to blame for their own experience of sexual assault, as well as sexual assault in general, and could be motivated to become advocates or agents of change in response—a form of psychological growth. Unfortunately, because there have only been a few studies on the topic, the implications are only speculative at this point, but have been explored in this review.

This study aimed to review the literature on the relationship between sexual violence and PTG. The primary purpose of this review was to summarize what is known about how experiencing sexual violence could possibly result in psychological growth. A secondary aim of this review was to increase the knowledge base of PTG in sexual assault victims for use by practitioners. The study is unique in its focus on a very specific type of traumatic event, and the unique implications this trauma holds for psychological growth.

Method

To conduct this review, the authors compiled all articles and dissertations from psychological journals on the topic of PTG with analyses specific to sexual victimization.

Search strategy

When searching for the appropriate articles and dissertations, key terms, such as *domestic violence*, *rape*, *intimate partner violence*, *sexual assault*, *sexual violence*, *adult sexual assault*, and *sexual aggression* were paired with the key words *PTG*, *positive adjustment*, *positive life changes*, *positive sequelae*, and *posttraumatic growth*. The search engines that were used included PsychINFO, PubMed, PsycARTICLES, ProQuest, and Web of Science, in addition to Google Scholar searches. No specific date range was specified, but none of the initially identified articles was published before 1980. Approximately 54 articles were initially identified and evaluated in the preliminary search using the identified keywords. The reference pages of the primary sources were also searched for relevant articles and cited reference searches were conducted to yield additional sources. Of those retrieved, 17 met criteria and were included in this study (see Table 1).

Study design

The design of the study was exploratory. The selected articles were reviewed for information about basic study design and results, and then explored for themes among their collective

findings, gaps in the literature, and patterns of results, conclusions, or recommendations. This process allowed for themes to emerge (e.g., by virtue of overlap between articles) and for those themes to be selected for focus in the results and discussion.

Inclusion and exclusion criteria

Only individual empirical studies located in peer-reviewed journals (qualitative or quantitative), books, and dissertations were selected. Sources that were conference proceedings, reviews, nonempirical book chapters, editorial, or theoretical in nature were excluded. Articles were considered based on their definition of PTG. The definition of PTG was taken from research provided by Tedeschi and Calhoun (2004): “significant beneficial change in cognitive and emotional life beyond previous levels of adaptation, psychological functioning, or life awareness” (p. 1). These articles were compared to the operational definition of PTG provided by Tedeschi and Calhoun (2004) and selected if criteria were met. For this review, sexual assault was defined as any sexual act perpetrated against someone’s will (Centers for Disease Control and Prevention, 2002), and only articles studying sexual violence in the context of this definition were included. The final requirement for inclusion criteria was authors’ report or identification of the occurrence, frequency, or nature of PTG among victims of sexual violence in their results.

Results and discussion

The body of literature on PTG among victims of sexual assault is relatively limited compared to victims of other traumas, but has nonetheless been shown to be a reoccurring phenomenon.

The articles reviewed in this literature review used different terms to describe positive change in an individual’s life. In addition to PTG, terms such as *growth*, *positive adjustment*, *positive life changes*, and *positive sequelae* were also used synonymously to refer to a psychological change in a patient (Borja, Callahan, & Long, 2006; Burt & Katz, 1987; Frazier, Conlon, & Glaser, 2001). PTG refers to a permanent change and differs from other terms that describe the outcomes of trauma, such as, *illusions*, *perceived benefits*, *positive perception*, or *resilience* (Tedeschi et al., 1998). These terms do not reflect growth in a measurable sense, but instead represent the victim’s own perception of change. They are considered “coping mechanisms for trauma rather than an outcome” because they fail to include the personal, behavioral, and social differences previously reported in qualitative studies (Malchoid, Steele, & Kuban, 2008; Steele & Kuban, 2011; Taylor & Armor, 1996; Tedeschi & Calhoun, 2004, p. 2; Young, 2007). Whereas many researchers have made a clear distinction between growth and perception, others have not. In this study we adopted the operational definition drawn from Tedeschi and Calhoun’s definition of PTG, which is meant to represent a personal transformation that improves quality of life (Tedeschi & Calhoun, 2004).

Across the studies reviewed here, all articles reported that their participants reported some form of growth. Among the articles, participants reported growth rates ranging from as low as 25% to as high as 67%.

Growth measurement

Although the operational definition of PTG established in 1996 (Tedeschi & Calhoun, 1996) was adopted widely, the specific way in which growth is measured was never agreed to. As a consequence, when PTG was first introduced, emphasis was placed on conducting quantitative studies in an effort to determine common areas of growth and to ultimately establish consistent reporting methods. The Posttraumatic Growth Inventory (PTGI) is a standardized and valid measure of PTG that has been used across various types of trauma (Barr, 2011) and is comprised of 21 items measured on 6-point Likert scale that ranges from 0 (*I did not experience this change as a result of my crisis*) to 5 (*I experienced this change to a very great degree as a result of my crisis*). Although the PTGI provides an overall growth score (0–105), the scale consists of five domains: relationships with others, new possibilities, personal strength, spiritual change, and appreciation for life. Despite these efforts, PTG measurement across the articles in this review differed as a function of study and timing. All of the quantitative studies used self-report surveys to measure victims' change, but the items used to measure growth across studies were not consistent. An overwhelming number (seven) of articles in this review used Tedeschi and Calhoun's (1996) self-reported PTGI in their questionnaires (Grubaugh & Resick, 2007; Gwynn, 2008; Kleim & Ehlers, 2009; Kunst, 2011; Shakespeare-Finch & Armstrong, 2010).

In addition to the PTGI, researchers used other measures to explore growth after experiencing trauma in the manuscripts reviewed here. Other scales that sexual victim studies have used are similar to PTGI subscales but fail to encompass all areas mentioned in participant interviews. For example, Borja et al. (2006) used the Perceived Benefits Scale, and although it demonstrated construct validity with the PTGI, it used 30 positive change items and eight negative change items. In a different manuscript, Burt and Katz (1987) developed their own measure to assess the ways in which a participant might have changed from before to after a rape. Although these measures conceptually overlap with the PTGI, spirituality or changes in relationships with close others was not measured.

Growth domains among victims of sexual assault

The PTGI measures five distinct growth domains. They include relationships with others, new possibilities, personal strength, spiritual change, and appreciation for life. These domains represent varied ways in which the survivor of a trauma might discover personal and psychological growth. Our review of the current literature suggested the nature of PTG (i.e., the domain for which growth occurs in the aftermath of sexual assault) differed from study to study. Participants in the Frazier and colleagues (1994) study reported greater appreciation for life, whereas participants in other studies experienced growth due to their relationships with others and support from family and friends (Borja et al., 2006; Burt & Katz, 1987; Draucker et al., 2009; Frazier et al., 1994; Frazier et al., 2001; Frazier, Tashiro, Berman, Steger, & Long, 2004; Guerette & Caron, 2007). Guerette and Caron (2007) reported that the growth experienced after sexual assault was an increase in the quality and satisfaction in their relationships with their mothers as well as an increase in reported empathy for others. Spiritual change was also a theme (Frazier et al., 2006; Kennedy, Davis, & Taylor, 1998) in the articles reviewed, as were personal strength and sense of control over the situation (Burt & Katz, 1987; Draucker et al., 2009; Frazier, Tashiro, et al., 2004). In a

2007 qualitative study, similar to the PTGI category of personal strength, rape victims reported having developed a stronger sense of self: "It made me stronger in who I am because I knew it wasn't my fault" (Guerette & Caron, 2007). The research reviewed here illustrated that many posttrauma victims experience new possibilities as a form of growth. Burt and Katz (1987) found that 30% of the rape victims became involved in social and political action after their trauma incident. Draucker et al. (2009) reported similar findings with sexual assault victims seeking justice within sexual violence and becoming advocates by reporting violence with more frequency.

Types of studies and timing

There might be an essential postassault window of time in which an individual has the potential to experience positive growth; however a lack of consistency across studies in measurement has prohibited researchers from drawing any conclusions. In addition to examining how PTG was measured across studies, we were also interested in exploring the different methods on study used to explore PTG in this review. Of the studies reviewed, 11 were cross-sectional and qualitative (Borja et al., 2006; Burt & Katz, 1987; Frazier et al., 1994; Frazier et al., 2006; Grubaugh & Resick, 2007; Gwynn, 2008; Kennedy et al., 1998; Kunst, 2011; Shakespeare-Finch & Armstrong, 2010; Ullman, 2014), one was a qualitative metasynthesis (Draucker, Martsoff, Ross, Cook, Stidham, & Mweemba, 2009), two were qualitative interviews (Guerette & Caron, 2007; Thompson, 2000), and four were quantitative and longitudinal (Frazier et al., 2004; Frazier et al., 2001; Kleim & Ehlers, 2009). Inclusion criteria within each study differed as a function of the specific study. For example, eligibility criteria for some studies were whether one had ever experienced some type of sexual assault (Burt & Katz, 1987; Draucker et al., 2009; Frazier et al., 1994; Frazier, Tashiro, et al., 2004; Frazier et al., 2006; Gwynn, 2008; Kennedy et al., 1998; Shakespeare-Finch & Armstrong, 2010), whereas other studies only included participants who had been assaulted within a specific time frame (Borja et al., 2006; Frazier et al., 2001; Grubaugh & Resick, 2007; Kleim & Ehlers, 2009; Kunst, 2011; Thompson, 2000). Among those studies where eligibility was based on the time since sexual assault, there was not an established standard of when PTG should be measured. Some studies measured growth as early as 2 weeks after sexual assault (Kleim & Ehlers, 2009), whereas others measured it at 3 months to 1 year (Grubaugh & Resick, 2007; Kleim & Ehlers, 2009). In contrast, participants in Borja et al.'s (2006) study had to have experienced sexual assault within the past 2 years to be eligible; thus one participant could have been sexually assaulted a week prior to completing the PTGI, whereas another participant could hypothetically have been sexually assaulted 18 months prior to study participation. The lack of an established standard regarding when to measure growth among victims of sexual assault potentially affects what types of conclusions can be made, although Burt and Katz (1987) concluded that some aspects of recovery and growth were independent of the passage of time. This notion is similar to Grubaugh and Caron's (2007) finding that the as time passes, sexual assault victims might later perceive that they have experienced growth. Frazier and colleagues (2001) found that 2 weeks after a sexual assault yielded positive changes such as concern for others in similar situations, relationships with family, and appreciation of life. Due to the longitudinal nature of this article, Frazier et al. found that the most growth occurred between 2 weeks and 2 months, whereas the most common negative and positive changes occurred at

2 weeks. At 2 months, concern for others and appreciation for life were reported at high rates by sexual assault survivors, as well as the ability to recognize strengths as a positive change (Frazier et al., 2001); indicating that this domain of growth requires more time to develop. Empathy also increased closer to the trauma and was a recurring theme throughout all articles. In addition, some studies found a positive correlation between time since assault and PTG (Burt & Katz, 1987; Grubaugh & Resick, 2007), whereas others found no correlation (Gwynn, 2008; Kennedy et al., 1998). Moreover, results varied among the studies that measured growth longitudinally. Frazier and colleagues (2001) concluded the highest rate of growth occurred 2 weeks postassault, whereas Borja, Callahan, and Rambo (2009) found participants were most likely to report some form of growth 6 months after the assault.

In addition to the methodological differences, inclusion criteria also differed between studies. Gender was not an eligibility requirement in five of the studies, as males and females were included in the sample (Draucker et al., 2009; Kleim & Ehlers, 2009; Kunst, 2011; Shakespeare-Finch & Armstrong, 2010), whereas the other 13 studies only included female participants (Borja et al., 2006; Burt & Katz, 1987; Frazier et al., 1994; Frazier et al., 2001; Frazier, Tashiro, et al., 2004, 2006; Grubaugh & Resick, 2007; Guerette & Caron, 2007; Gwynn, 2008; Kennedy et al., 1998; Thompson, 2000). Although males were included in some of the studies, in those, results were not stratified by gender. Given that gender differences have been found in how victims cope with sexual assault as well as gender differences among the adverse psychological outcomes, a gap in the literature exists regarding gender differences within the results of the PTGI.

Perpetrator identity

One aspect that greatly differs among victims who suffer sexual trauma as opposed to other traumas, such as cancer or terrorism, is the relationship these victims have with the perpetrator. Although researchers have yet to determine whether type of perpetrator affects the experience of growth after experiencing sexual violence, suffering sexual violence and assault more than once does seem to hinder growth. When investigating revictimization (which often occurs by a husband or family member), it has been found that growth can be severely hindered. Researchers believe that revictimization results in a perceived lack of social support, a reduction in trust and perceived safety, and a reduced likelihood that the victim will report the assault, all of which are suspected to be key in victims' recovery (Culbertson, Vik, & Kooiman, 2001; Koss, Dinero, Seibel, & Cox, 1988; Ranjbar & Speer, 2013; Roth, Wayland, & Woolsey, 1990; Ullman & Siegel, 1993)

Participants in Burt and Katz's (1987) study described perpetrators who were strangers, whereas other studies included participants that knew the identity of their assailants (Borja et al., 2006; Frazier et al., 2001). Frazier and colleagues (2004) reported 55% of their participants had perpetrators who were relatives and found no significant differences between victims of stranger and acquaintance rape on growth. In Guerette and Caron's (2007) study, participants all knew their perpetrator (12 of 12 women reported acquaintance rape) and alluded to feeling blame for the sexual assault: "I knew what had happened had

been wrong. But I also blamed myself for being in that situation, and didn't immediately label it as a rape."

Control

An aspect of sexual violence that differs from other traumas is the perceived control victims have over their postassault recovery. Because a majority of sexual violence occurs at the hands of an acquaintance, friend, or intimate partner (CDC, 2010), the nature of sexual violence is such that it has the potential to introduce guilt and self-blame or the feeling that one had some level of control over the sexual violence they experienced. Internal locus of control, defined as the belief that one has control over his or her life, has been shown to have a large influence on whether survivors of sexual violence develop posttraumatic growth (Frazier et al., 2004; Kunst, 2011).

Our review of the literature emphasized the importance of control. In the study by Kunst (2011), high internal locus of control and low external control were assumed to protect against unsuccessful coping and found this same relationship across sexual violence victims (also among victims of physical assault and robbery). Frazier, Tashiro, et al., (2004) found that survivors who perceive that they have more control over their recovery, as opposed to the assault, reported more positive life change because it fosters a successful coping process. The traumatic event itself is out of the victim's control, and the perception of control is an illusory tool survivors use to cope (Zoellner & Maercker, 2006; Frazier, Tashiro, et al., 2004). Nonetheless, the studies from this review suggest that control (real, perceived, or illusory) is important to growth in the aftermath of sexual assault (Zoellner & Maercker, 2006).

PTG and distress symptomology

Although distress and PTG seem to cooccur, there has been much debate among researchers as to whether one (distress) leads to the other (growth), or whether they are independent constructs. When investigating psychological growth as an outcome of traumatic experiences, it is reasonable to expect moderate to high levels of distress (associated with the trauma itself) among these individuals to begin with. What is less clear is the extent to which the level of distress experienced influences the propensity for growth.

Some articles reviewed here found that this relationship was positively correlated. For example, Kleim and Ehlers (2009) found that higher PTGI levels were associated with greater PTSD and depression symptom severity in victims of sexual assault. Additionally, several articles proposed that for some individuals, the distress associated with sexual traumatic experiences could in fact act as a motivator for these individuals to grow (Frazier et al., 2001; Thompson, 2000). In support of this statement, researchers have found that the more life-threatening or life-changing the event was, the more growth occurred (Cole, 2008; Kleim & Ehlers, 2009). This finding suggests a potential paradox; that is, the more central to or encompassed by the event one is, the more motivation or room there is to grow (Barton, Boals, & Knowels, 2013; Boals & Schuettler, 2011). Contrary to this is Grubaugh and Resick's (2007) conclusion that PTG is not related to psychological distress at all. Other studies in this review found that the relationship between growth and depressive symptoms

or distress might be negative (Burt & Katz, 1987; Frazier & Burnett, 1994; Frazier et al., 2001; Frazier et al., 2006). The greater the number of symptoms or the greater the severity of the PTSD depressive symptoms, the less growth will occur. For example, several articles (Frazier et al., 2001; Thompson, 2000) found that if growth is maintained over time, the level of distress decreased significantly, whereas growth is either not sustained or was never found to be present to begin with among those who initially reported high levels of distress. In addition, research conducted in 2009 compared psychological growth of victims of motor vehicle accidents and bereavement to sexual assault victims (Shakespeare-Finch & Armstrong, 2010). The results indicated that sexual assault victims reported lower levels of psychological growth, but high levels of PTSD symptoms when compared to motor vehicle accident and bereavement victims (Shakespeare-Finch & Armstrong, 2010). Furthermore, other research has indicated that because individuals experienced trauma in various ways, rather than indicating a specific cause-and-effect relationship between PTSD or depressive symptoms and PTG, the correlation might be driven by other factors such as personality traits or attachment styles (Frazier et al., 2001; Gwynn, 2008).

Research in support of identifying a cause-and-effect relationship between PTG and PTSD or depressive symptoms found a curvilinear relationship between PTG and PTSD or depressive symptoms across various traumas (Borton, Boals, & Knowels, 2013; Dekel, Mandl, & Solomon, 2011; Kleim & Ehlers, 2009; Shakespeare-Finch & Armstrong, 2010). These traumas include, but are not limited to, veterans of war, war hostages, and, important for this review, sexual assault. The research in support of this finding suggests that too little or too much depressive symptomology could hinder an individual's ability to grow. In other words, it could be that too little distress might not be enough motivation for an individual to experience positive growth, and too much distress will result in overwhelmingly negative mental health symptoms and negate the ability to experience growth. There have only been a few studies to investigate this relationship, very few of which included sexual assault (Barton et al., 2013; Boals & Schuettler, 2011; Kleim & Ehlers, 2009; Shakespeare-Finch & Armstrong, 2010). Although some past research suggests a positive relationship between the severity of sexual assault and positive adjustment, other findings suggest a curvilinear relationship; that is, growth can only occur if there is significant distress from the sexual assault, but if the sexual assault becomes too severe, the likelihood of growth decreases. Unfortunately, research examining curvilinear relationships between growth and distress is greatly underrepresented in the current literature and might have important implications if more evidence is presented on this topic.

Moderators of posttraumatic growth

Across the studies reviewed, researchers noticed that certain factors have the potential to serve as moderators of PTG among sexual assault victims. Frazier and Burnett (1994) found that keeping busy, thinking positively, and suppressing negative thoughts were related to lower negative postrape symptomology. Additionally, sexual assault victims engaged in "acceptance coping" or who disclosed their assault were more likely to experience PTG (Cole, 2008). The results from the studies reviewed suggest that one of the reasons growth varies across studies might be attributed to personality type. In some studies, higher rates of growth have been found among those with more positive personality types (see Frazier,

Tashiro, et al., 2004). In other studies, neuroticism is associated with less potential for growth (see Kunst, 2011).

Greater PTGI scores have also been found among individuals who are more hopeful (Gwynn, 2008); thus those who believe things can get better after experiencing trauma have higher growth scores. On the whole, studies in this review seem to suggest that personality type can play a significant role on the potential for PTG among sexual assault victims.

This review uncovered several other potential moderators, including age, education, religiosity, and race. Participants had to be over 18 in three of the studies (Grubaugh & Resick, 2007; Kennedy et al., 1998; Kunst, 2011), but there was no age requirement in the other 15 studies. The mean age of participants ranged from 19 (Guerette & Caron, 2007) to 44.2 (Kunst, 2011). Three studies examined the direct relationship between PTG and age, finding that growth decreased as age increased (Grubaugh & Resick, 2007; Gwynn, 2008; Ullman, 2014). The remaining studies failed to examine age as a potential moderator or covariate. A similar relationship was found between religiosity and psychological growth. Kleim and Ehlers (2009) found that the more religious a survivor reported being, the more PTG he or she demonstrated. An inverse relationship has been shown between growth and education, such that as education increased, growth decreased, although this was only found in two studies (Grubaugh & Resick, 2007; Ullman, 2014). Additionally, one study found that marriage could have a negative effect on the likelihood of experiencing PTG; in other words, people who were married reported lower levels of PTG (Gwynn, 2008). Furthermore, non-Whites were also more likely to experience PTG (Kleim & Ehlers, 2009; Ullman, 2014).

Conclusion

After experiencing trauma, most therapeutic techniques focus on negative symptomology, more specifically PTSD. Few counseling methods have acknowledged that there can be positive outcomes and even fewer have incorporated PTG as a key feature of the approach. Future research needs to focus on how to develop growth as a means to help victims of sexual assault move from simple resilience to positive psychological growth. Researchers should aim to use empirical studies toward the goal of further developing the formal definition of PTG to be able to find consensus among the literature surrounding this topic. This would allow for the ability to focus on practical exploration of the etiology of PTG. The future of this research might be able to clearly identify factors of the PTG process among sexual violence victims and survivors that have clear clinical implications. As an example, trust in an individual's support systems and spirituality have been shown to be both a predictor and consequence of growth. The limited research that looks at sexual violence victims has shown that these two aspects of a victim's life can help find positivity in trauma and counseling can further develop them to increase the possibility of growth.

As mentioned before, consensus among researchers about operational definitions of both PTG and sexual violence are needed. Although many researchers adopt the definition established by Tedeschi and Calhoun (2004) with regard to PTG, there is no established standard for the construct. Understandably, although there is no diagnostic manual to which one can refer, an agreed on and more widely adopted definition of PTG would facilitate better research and the ability to draw empirically sound conclusions. The PTGI should

continue to be used as a tool to measure growth in all studies where PTG is an outcome of interest. Similarly, researchers would benefit from working toward the establishment of an agreement on how soon after a sexual assault one should measure growth. This can perhaps be accomplished with the addition of more longitudinal studies of PTG. The benefit of researchers using a consistent definition for sexual assault includes the ability to compare study findings as well as the ability to be able to generalize their findings.

According to cognitive adaptation theory (Taylor, 1983), individuals might report growth when in actuality they are trying to restore beliefs about safety that were temporarily violated by the trauma. Consistent with this perspective, growth cannot always be distinguished from *positive illusions*, which might not be representative of authentic change. As such, theorists have suggested that future research should find ways to address both constructive and illusory components of PTG, both generally and in the aftermath of sexual assault (Zoellner & Maercker, 2006).

Conducting posttrauma research has become increasingly important to understand exactly how victims are affected. This research is exploring the short-term as well as the long-term consequences, and the adverse as well as the positive outcomes. By continuing to learn more about who is more likely to experience PTG, and under what circumstances, interventions can target individuals who might not otherwise grow from experiencing a traumatic event. In addition, knowing what increases the likelihood of experiencing PTG, such as social support or spirituality, provides researchers with tools to promote positive adjustment.

References

- Anderson K, Renner L, Danis F. Recovery: Resilience and growth in the aftermath of domestic violence. *Violence Against Women*. 2012; 18:1279–1299. DOI: 10.1177/1077801212470543 [PubMed: 23334815]
- Barr P. Posttraumatic growth in parents of infants hospitalized in a neonatal intensive care unit. *Journal of Loss and Trauma: International Perspectives on Stress & Coping*. 2011; 16:117–134. DOI: 10.1080/15325024.2010.519265
- Barton S, Boals A, Knowles L. Thinking about trauma: The unique contributions of event centrality and posttraumatic cognitions in predicting PTSD and posttraumatic growth. *Journal of Traumatic Stress*. 2013; 26:718–726. DOI: 10.1002/jts.2013.26.issue-6 [PubMed: 24490252]
- Boals A, Schuettler D. A double-edged sword: Event centrality, PTSD and post-traumatic growth. *Applied Cognitive Psychology*. 2011; 25:817–822. DOI: 10.1002/acp.v25.5
- Borja SE, Callahan JL, Long PJ. Positive and negative adjustment and social support of sexual assault survivors. *Journal of Traumatic Stress*. 2006; 19:905–914. DOI: 10.1002/(ISSN)1573-6598 [PubMed: 17195986]
- Borja SE, Callahan JL, Rambo PL. Understanding negative outcomes following traumatic exposure: The roles of neuroticism and social support. *Psychological Trauma: Theory, Research, Practice, and Policy*. 2009; 1:118–129. DOI: 10.1037/a0016011
- Burt MR, Katz BL. Dimensions of recovery from rape: Focus on growth outcomes. *Journal of Interpersonal Violence*. 1987; 2(1):57–81. DOI: 10.1177/088626087002001004
- Calhoun L, Tedeschi R. Perceiving benefits in traumatic events: Some issues for practicing psychologists. *Journal of Training and Practice in Professional Psychology*. 1991; 5(1):45–52.
- Center for Disease Control. Intimate partner violence prevention scientific information: Definitions. Retrieved January 18, 2010, from <http://www.cdc.gov/ncipc/dvp/IPV/ipv-definitions.htm>
- Centers for Disease Control and Prevention. Understanding sexual violence: Fact Sheet. 2007. Retrieved March 6, 2009, from <http://www.cdc.gov/ncipc/pub-res/images/SV%20Factsheet.pdf>

- Centers for Disease Control and Prevention, National Center for Injury Prevention and Control. Sexual violence. Atlanta, GA: Author; 2002. Retrieved from <http://www.cdc.gov/violenceprevention/sexualviolence>
- Cole, AS. Doctoral dissertation. 2008. Differential adjustment among sexual assault survivors: Predicting positive outcome. Retrieved from ProQuest Dissertations and Theses. (Order No. 1453909)
- Culbertson KA, Vik PW, Kooiman BJ. The impact of sexual assault, sexual assault perpetrator type, and location of sexual assault on ratings of perceived safety. *Violence Against Women*. 2001; 7:858–875. DOI: 10.1177/10778010122182794
- Dekel S, Mandl C, Solomon Z. Shared and unique predictors of posttraumatic growth and distress. *Journal of Clinical Psychology*. 2011; 67:241–252. DOI: 10.1002/jclp.v67.3 [PubMed: 21254052]
- Draucker CB, Martzolf DS, Ross R, Cook CB, Stidham AW, Mweemba P. The essence of healing from sexual violence: A qualitative metasynthesis. *Research in Nursing and Health*. 2009; 32:366–378. [PubMed: 19415681]
- Frazier PA, Burnett JW. Immediate coping strategies among rape victims. *Journal of Counseling and Development*. 1994; 72:633–639.
- Frazier P, Conlon A, Glaser T. Positive and negative life changes following sexual assault. *Journal of Consulting and Clinical Psychology*. 2001; 69:1048–1055. [PubMed: 11777108]
- Frazier, P., Conlon, A., Steger, M., Tashiro, T., Glaser, T. Positive life changes following sexual assault: A replication and extension. In: Kume, GD., editor. *Post-traumatic Stress: New Research*. Hauppauge, NY: Nova Science Publishers; 2006. p. 1-22.
- Frazier P, Steward J, Mortensen H. Perceived control and adjustment to trauma: A comparison across events. *Journal of Social and Clinical Psychology*. 2004; 23:303–324. DOI: 10.1521/jscp.23.3.303.35452
- Frazier P, Tashiro T, Berman M, Steger M, Long J. Correlates of levels and patterns of positive life changes following sexual assault. *Journal of Consulting and Clinical Psychology*. 2004; 72:19–30. DOI: 10.1037/0022-006X.72.1.19 [PubMed: 14756611]
- Grubaugh AL, Resick PA. Posttraumatic growth in treatment-seeking female assault victims. *Psychiatric Quarterly*. 2007; 78(2):145–155. DOI: 10.1007/s1126-006-9034-7 [PubMed: 17380387]
- Guerette SM, Caron SL. Assessing the impact of acquaintance rape: Interviews with women who are victims/survivors of sexual assault while in college. *Journal of College Student Psychotherapy*. 2007; 22(2):31–50.
- Gwynn, S. Unpublished doctoral dissertation. University of North Texas; Denton, Texas: 2008. Adult attachment and posttraumatic growth in sexual assault survivors.
- Hafstad G, Gil-Rivas V, Kilmer R, Raeder S. Parental adjustment, family functioning, and posttraumatic growth among Norwegian children and adolescents following a natural disaster. *American Journal of Orthopsychiatry*. 2010; 80:248–257. DOI: 10.1111/j.1939-0025.2010.01028.x [PubMed: 20553518]
- Heise L, Ellsberg M, Gottmoeller M. A global overview of gender-based violence. *International Journal of Gynecology & Obstetrics*. 2002; 78:S5–S14. DOI: 10.1016/S0020-7292(02)00038-3 [PubMed: 12429433]
- Joseph S, Alex Linley PA, Harris GJ. Understanding positive change following trauma and adversity: Structural clarification. *Journal of Loss and Trauma*. 2004; 10:83–96. DOI: 10.1080/15325020490890741
- Kennedy JE, Davis RC, Taylor BG. Changes in spirituality and well-being among victims of sexual assault. *Journal for the Scientific Study of Religion*. 1998; 37:322–328. DOI: 10.2307/1387531
- Kleim B, Ehlers A. Evidence for a curvilinear relationship between posttraumatic growth and posttrauma depression and PTSD in assault survivors. *Journal of Traumatic Stress*. 2009; 22(1): 45–52. DOI: 10.1002/jts.v22:1 [PubMed: 19230007]
- Koss MP, Dinero TE, Seibel CA, Cox SL. Stranger and acquaintance rape. *Psychology of Women Quarterly*. 1988; 12:1–24.

- Kunst M. Affective personality type, post-traumatic stress disorder symptom severity and post-traumatic growth in victims of violence. *Stress and Health*. 2011; 27(1):42–51. DOI: 10.1002/smi.v27.1
- Lev-Wiesel R, Amir M, Besser A. Posttraumatic growth among female survivors of childhood sexual abuse in relation to the perpetrator identity. *Journal of Loss and Trauma*. 2004; 10(1):7–17. DOI: 10.1080/15325020490890606
- Malchiodi, C., Steele, W., Kuban, C. Resilience and posttraumatic growth in traumatized children. In: Malchiodi, C., editor. *Creative Interventions with Traumatized Children*. New York: Guilford Press; 2008. p. 285–301.
- Milam J, Ritt-Olson A, Tan S, Unger J, Nezami E. The September 11th 2001 terrorist attacks and reports of posttraumatic growth among a multi-ethnic sample of adolescents. *Traumatology*. 2005; 11:233–246. DOI: 10.1177/153476560501100404
- Ranjbar V, Speer SA. Revictimization and recovery from sexual assault: Implications for health professionals. *Violence and Victims*. 2013; 28:274–287. DOI: 10.1891/0886-6708.11-00144 [PubMed: 23763112]
- Roth S, Wayland K, Woolsey M. Victimization history and victim–assailant relationship as factors in recovery from sexual assault. *Journal of Traumatic Stress*. 1990; 3(1):169–180. DOI: 10.1002/(ISSN)1573-6598
- Shakespeare-Finch J, Armstrong D. Trauma type and posttrauma outcomes: Differences between survivors of motor vehicle accidents, sexual assault, and bereavement. *Journal of Loss and Trauma*. 2009; 15(2):69–82. DOI: 10.1080/15325020903373151
- Sherr L, Nagra N, Kulubya G, Catalan J, Clucas C, Harding R. HIV infection associated posttraumatic stress disorder and posttraumatic growth: A systematic review. *Psychology Health and Medicine*. 2011; 16:612–629.
- Steele W, Kuban C. Trauma-informed resilience and post-traumatic growth (PTG). *Reclaiming Children and Youth*. 2011; 20(3):44–46.
- Taylor SE. Adjustment to threatening events: A theory of cognitive adaptation. *American Psychologist*. 1983; 38:1161–1173.
- Taylor SE, Armor DA. Positive illusions and coping with adversity. *Journal of Personality*. 1996; 64(4):873–898. [PubMed: 8956516]
- Taylor SE, Brown JD. Illusion and well-being: A social psychological perspective on mental health. *Psychological Bulletin*. 1988; 103:193–210. [PubMed: 3283814]
- Tedeschi R. Posttraumatic growth in combat veterans. *Journal of Clinical Psychology in Medical Settings*. 2011; 18:137–144. [PubMed: 21626349]
- Tedeschi, RG., Calhoun, LG. *Trauma and transformation: Growing in the aftermath of suffering*. Thousand Oaks, CA: Sage; 1995.
- Tedeschi RG, Calhoun LG. The posttraumatic growth inventory: Measuring the positive legacy of trauma. *Journal of Traumatic Stress*. 1996; 9:455–471. [PubMed: 8827649]
- Tedeschi RG, Calhoun LG. Posttraumatic growth: Conceptual foundations and empirical evidence. *Psychological Inquiry*. 2004; 15(1):1–18.
- Tedeschi, RG, Park, CL., Calhoun, LG., editors. *Posttraumatic growth: Positive changes in the aftermath of crisis*. Mahwah, NJ: Erlbaum; 1998.
- Thompson M. Life after rape: A chance to speak? *Sexual and Relationship Therapy*. 2000; 15(4):325–343.
- Ullman, SE. Correlates of posttraumatic growth in adult sexual assault victims. *Traumatology: An International Journal*. 2014. Advance online publication. Retrieved from <http://dx.doi.org/10.1037/h0099402>
- Ullman SE, Siegel JM. Victim–offender relationship and sexual assault. *Violence and Victims*. 1993; 8:121–134. [PubMed: 8193054]
- Yi, J. Unpublished doctoral dissertation. University of Southern California; Los Angeles, California: 2011. The impact of posttraumatic stress and posttraumatic growth on young adult cancer survivors.

- Young, MD. Unpublished doctoral dissertation. University of Montana; Missoula, Montana: 2007.
Finding meaning in the aftermath of trauma: Resilience and posttraumatic growth in female survivors of intimate partner violence.
- Zoellner T, Maercker A. Posttraumatic growth in clinical psychology: A critical review and introduction of a two-component model. *Clinical Psychology Review*. 2006; 26:626–653.
[PubMed: 16515831]

Table 1

Literature Review.

Study	Design	Sample	Growth measurement	Operational definition of sexual assault	Main findings
Borja et al. (2006)	Quantitative; cross-sectional	N= 115, women, adults	38-item Perceived Benefit Scale	24-item Sexual Experience Survey (Modified)	Growth and distress are independent constructs that are not mutually exclusive. Positive reactions from family, friends, and formal support providers were associated with benefits in the aftermath of trauma.
Burt and Katz (1987)	Qualitative (semistructured) and quantitative; cross-sectional	N= 113, women, adults	"How I See Myself Now" 43-item self-concept measure; "How I Deal with Things" 33-item coping style; "Changes That Have Come from Our Efforts to Recover" 28-item scale measuring perceptions of how they are now compared to how they were before rape	N/A	50% or more of respondents felt that they had changed "a little," "somewhat," or "a great deal" in a positive direction, with 25% or more answering "somewhat" or a "great deal."
Cole (2008)	Quantitative	N= 204, women, age M = 19.5 (SD = 2.0)	15-item Benefit Finding Scale, 15-item Dispositional Resilience Scale	10- item Sexual Experience Survey	Participants who reported more hardship were less likely to experience depressive symptoms and more likely to experience posttraumatic growth.
Draucker et al. (2009)	Qualitative metasynthesis	51 articles, N= 1,219, men and women, adults	Four domains of healing: managing memories, relating to important others, seeking safety, reevaluating the self	Centers for Disease Control and Prevention definition of sexual violence (1999)	Found a concurrence between distress and psychological growth. Articles discussed growth in similar areas to those in the PTCI.
Frazier & Burnett (1994)	Quantitative	N= 67, women, age M = 27 (SD = 13.59)	Thematic analysis	N/A	Positive changes were found as early as 3 days after the sexual assault. Participants exhibited a negative correlation between distress and psychological growth.
Frazier, Conlon, & Glaser (2001)	Quantitative; longitudinal	N= 171, women, ages 16 to 52 (M = 27)	17-item Posttraumatic Life Change Measure	N/A	The most growth occurred between 2 weeks and 2 months posttrauma. There was a negative correlation between PTSD and PTG.
Frazier, Conlon, Steger, Tashiro, & Glaser (2006)	Quantitative; cross-sectional	N= 135, women, ages 18 to 78 (M = 39)	17-item Posttraumatic Life Change Measure	"Nonconsensual sexual intercourse involving threats or physical force"	Half of participants reported greater growth when they felt more in control of their recovery. Victims that displayed greater PTG levels displayed fewer distress symptoms.
Frazier et al. (2004)	Quantitative; longitudinal	N= 171, women, ages 16 to 52 (M = 27)	14-item Positive Life Change Scale	"Nonconsensual sexual activity"	PTG reported as early as 2 weeks after rape. Participants who feel they have more control over their recovery report higher levels of growth.

Study	Design	Sample	Growth measurement	Operational definition of sexual assault	Main findings
Grubaugh and Resick (2007)	Qualitative (semistructured) and quantitative; cross-sectional	$N = 100$, women, age $M = 32.34$ ($SD = 11.24$)	21-item PTGI	N/A	The less educated participants were, the more PTG they reported. The younger a participant was, the more PTG was reported. Growth was independent of depression and PTSD.
Guerette & Caron (2007)	Qualitative (semistructured)	$N = 12$, women, ages 19–27	Thematic analysis	N/A	Participants experienced increased relationships with their mothers and more empathy toward others.
Gwynn (2008)	Quantitative	$N = 151$, women, ages 18 to 25 ($M = 21.13$)	21-item PTGI	10-item Sexual Experience Survey	Victims who were married or were older reported less growth. No relationship was found between PTG and time since sexual assault.
Kennedy et al. (1998)	Quantitative	$N = 70$, women, ages 19 to 46 ($M = 30$)	7-item Well-being measure, 5-item Spirituality measure, 6-item Intrinsic Religiosity	Assaulted by someone other than a domestic partner	Most participants reported increased spirituality and sense of well-being.
Kleim and Ehlers (2009)	Quantitative; longitudinal	Study 1 $N = 180$, men and women, $M = 35.08$ ($SD = 11.39$); Study 2 $N = 70$, men and women, $M = 34.77$ ($SD = 11.13$)	21-item PTGI	Participants who had experienced an assault were required to meet Criterion A of the <i>Diagnostic and Statistical Manual of Mental Disorders</i> (4th ed.)	Participants displayed a curvilinear relationship between PTG and PTSD. Non-White participants were more likely to grow. The more religious a victim was, the more PTG he or she reported.
Kunst (2010)	Quantitative	$N = 113$, men and women, age $M = 40.9$ ($SD = 14.4$)	Dutch version of PTGI	N/A	Participants who had affective personality were more likely to report higher PTG scores.
Shakespeare & Armstrong (2009)	Quantitative	$N = 94$, men and women, age $M = 28.26$ ($SD = 3.37$)	21-item PTGI	N/A	Sexual assault victims had lower levels of PTG when compared to victims of bereavement of motor vehicle accidents, but displayed the highest levels of PTSD.
Thompson (2000)	Qualitative	$N = 5$, women, ages 24 to 60	Thematic analysis	N/A	Found four reasons for growth: positive comparisons, winning the fight, validation of accounts, and talking with others.
Ullman (2014)	Quantitative	$N = 1,863$, women, age $M = 31.1$	10-item PTGI (Modified)	11-item Sexual Experiences Survey (Modified)	Growth was facilitated for older victims, less educated victims, and victims of color.

Note: PTGI = Posttraumatic Growth Inventory; PTSD = posttraumatic stress disorder; PTG = posttraumatic growth.