Posttraumatic Growth, Dissociation and Sexual Revictimization

Full citation:
Lahav, Y., Ginzburg, K., & Spiegel, D. (2020). *Post-traumatic growth, dissociation, and sexual revictimization in female childhood sexual abuse survivors.* Child Maltreatment, 25(1), 96–105. https://doi.org/10.1177/1077559519856102

Publisher's version: Available at: https://doi.org/10.1177/1077559519856102

Posttraumatic Growth, Dissociation and Sexual Revictimization in Female Childhood Sexual Abuse Survivors

Yael Lahav, Ph.D.[1]

Karni Ginzburg, Ph.D.[2]

David Spiegel, M.D. [1]

[1] Psychiatry and Behavioral Sciences, Stanford University School of Medicine, California

[2] Bob Shapell School of Social Work, Tel-Aviv University, Israel

Corresponding Author:
Yael Lahav, PhD
Postdoctoral Research Fellow,
Psychiatry and Behavioral Sciences
Stanford University School of Medicine
401 Quarry Road, Stanford CA 94305-5718
Tel: +1.650.4414555
Fax: +1.650.4986678
Email: lahav.yael62@gmail.com

Posttraumatic Growth, Dissociation and Sexual Revictimization in Female Childhood Sexual Abuse Survivors

Abstract

Background: Childhood sexual abuse (CSA) survivors are at high risk for sexual revictimization. At the same time, some survivors report positive transformations resulting from the traumatic experience, a phenomenon known as posttraumatic growth (PTG). Though one might expect PTG to be related to reduced risk for revictimization, the link between PTG and revictimization has not been investigated. Furthermore, mixed findings regarding the associations between PTG and distress imply that the effects of PTG are multifaceted. One potential explanation may be that dissociation shapes the implications of PTG, making it more like denial than adaptive processing of traumatic experience. This longitudinal study explores (a) the associations between PTG and sexual revictimization, and (b) the moderating role of dissociation within the associations between PTG and revictimization. **Methods:** Participants were 111 female CSA survivors who participated in 6-month efficacy trial evaluating the effectiveness of group psychotherapy for CSA survivors with HIV risk factors. **Results:** Dissociation moderated the associations between PTG and revictimization: Whereas PTG had non-significant effects on revictimization in participants with low dissociation, it predicted elevated levels of revictimization in participants with high dissociation. **Conclusions:** Reports of PTG among some CSA survivors might mirror dissociative beliefs, which increase their risk for revictimization.

Keywords: childhood sexual abuse, sexual revictimization, posttraumatic growth, dissociation, trauma

Introduction

Childhood sexual abuse (CSA) produces a plethora of long-term ramifications (e.g., Briere & Elliott, 2003). A meta-analysis, consisting of 37 studies, revealed that adult survivors of CSA are at an increased risk for developing a variety of symptoms, such as posttraumatic stress disorder (PTSD), depression, suicidality, and sexual promiscuity (Paolucci, Genuis, & Violato, 2001). Furthermore, research has consistently demonstrated that CSA is a risk factor for additional sexual victimization, a phenomenon denoted as sexual revictimization (e.g., Breitenbecher, 2001; Noll, Horowitz, Bonanno, Trickett, & Putnam, 2003). Childhood sexual abuse survivors are approximately twice as likely to experience sexual victimization during adulthood compared to women without a history of CSA (Messman-Moore & Long, 2002). A meta-analysis that included 80 studies, consisting of 12,252 CSA survivors, revealed that almost half of the CSA survivors experienced sexual revictimization (Walker, Freud, Ellis, Fraine, & Wilson, 2017). Co-occurrence of maltreatment in the home, risky sexual behaviors, emotion dysregulation, maladaptive coping strategies, and posttraumatic stress disorder (PTSD) have been identified as risk factors for sexual revictimization among CSA survivors (Scoglio, Kraus, Saczynski, Jooma, & Molnar, 2019).

Notwithstanding the negative effects of CSA, research has documented reports of positive gains or transformations, denoted in varied terms such as posttraumatic growth, perceived benefits, positive aspects, and transformation of trauma (e.g., Calhoun & Tedeschi, 1990; Tedeschi & Calhoun, 1988). Posttraumatic growth (PTG), which is the term that the current investigation utilizes, is defined as the tendency to report enhanced changes in the aftermath of traumatic events (Calhoun & Tedeschi, 2006; Tedeschi, Shakespeare-Finch, Taku, & Calhoun, 2018). These changes go beyond pre-trauma adjustment and are manifested in an increased appreciation for life, changes in priorities, more essential

relationships with others, a sense of increased personal strength, new possibilities for the future, and existential/spiritual thriving (Tedeschi & Calhoun, 2004; Tedeschi, et al., 2018).

The trauma literature has revealed PTG in survivors of diverse traumatic events including disasters, war, and life-threatening illness (Calhoun & Tedeschi, 2006; Linley & Joseph, 2004). Though research on PTG in the aftermath of sexual violence is relatively limited (for review see Ulloa, Guzman, Salazar, & Cala, 2016), PTG has also been documented in sexual assault survivors (e.g., Frazier, Conlon, & Glaser, 2001; Shakespeare-Finch & Armstrong, 2010), as well as in CSA survivors (Kaye-Tzadok & Davidson-Arad, 2016; Lev-Wiesel, Amir, & Besser, 2004; Shakespeare-Finch & De Dassel, 2009).

The co-occurrence of reports of PTG alongside the elevated risk for sexual revictimization in CSA survivors raises an important question regarding the relationship between the two. Specifically, one may wonder whether reports of growth, which are assumed to reflect positive transformations, may serve as a resource that could buffer the risk for additional sexual victimization in CSA survivors. Given that sexual revictimization is related to subsequent distress and psychopathology (e.g., Kimerling, Alvarez, Pavao, Kaminski, & Baumrind, 2007), identifying the effects of PTG on sexual revictimization is of great value and might promote clinical interventions designed to prevent revictimization and the psychological toll it takes.

Scrutiny of the empirical literature indicates that the answer to this question is far from unambiguous. To the best of our knowledge, the relations between PTG and sexual revictimization have not been explored to date. Further, previous studies that have assessed the association between PTG and post-trauma distress have revealed inconsistent findings. For example, studies that have assessed the relation between PTG and psychological distress in survivors of a wide range of traumatic events have indicated positive, negative, and no relation between the two (for review see Helgeson, Reynolds, & Tomich, 2006; Linley &

Joseph, 2004; Zoellner & Maercker, 2006). In the same vein, studies that have assessed the associations between PTG and distress with regard to sexual violence have led to mixed results. Whereas a longitudinal study revealed a negative association between PTG and PTSD symptoms, with lower levels of distress associated with greater growth (e.g., Frazier, et al., 2001), a cross-sectional study indicated both positive and negative relations between PTG and PTSD symptoms (Shakespeare-Finch & De Dassel, 2009). Others still have failed to find a significant relationship between PTG and PTSD (Grubaugh & Resick, 2007) or indicated curvilinear associations between the two (Kleim & Ehlers, 2009).

The contradictory findings concerning the effects of PTG on distress go hand in hand with the theoretical debate regarding the nature of PTG. Whereas some view PTG as an authentic positive change (Tedeschi & Calhoun, 2004; Tedeschi, et al., 2018), others suggest that PTG might reflect illusory positive beliefs (Davis & McKearney, 2003; McFarland & Alvaro, 2000), potentially exerting a negative effect on one's adjustment, at least to some degree. The theoretical model that is offered by Maercker and Zoellner (2004) suggests that PTG simultaneously includes both a constructive aspect and an illusory aspect. The constructive aspect is a result of active struggling with the trauma and is related to enhanced adjustment, while the illusory aspect could have negative implications in the long run if it serves as an avoidance strategy strengthening the individual’s unconscious efforts to evade acknowledging the traumatic event or its effects.

Aiming to further illuminate the multifaceted nature of PTG, Lahav, Bellin, and Solomon (2016) suggested a new theoretical perspective that views PTG in light of dissociation. Dissociation denotes a disruption in the integration of identity, memory, and consciousness, so that varied mental processes (e.g., thoughts, emotions, sensations, memories, and attitudes) are isolated from one another and become relatively inaccessible to consciousness and/or to voluntary recall (American Psychiatric Association, 2013).

Posttraumatic Growth, Dissociation and Sexual Revictimization

Dissociation is often viewed as a psychological defense to avoid experiencing the unbearable pain of the trauma (Spiegel, 1991). At the same time, however, if survivors habitually dissociate, even long after the trauma has ended (Classen, Koopman, & Spiegel, 1993), their ability to process and overcome the trauma they experienced may likely be impeded.

According to Lahav, Bellin, et al. (2016), the effects of dissociation might be relevant to the understanding of PTG, shaping both the quality of PTG as well as its long-term implications. Specifically, it has been argued that in the event that survivors do not habitually dissociate as a way to escape the emotional pain resulting from the trauma of CSA, and assuming that they also make profound efforts to work through the trauma, a deep transformation might occur via schema reconstruction. This process may lead trauma survivors, who experience a shattering of basic beliefs in the aftermath of trauma, to a re-building of their schemas, thereby forming wider, more complex, and integrated views of themselves and the world. The end result of schema reconstruction might include deep genuine positive changes that are manifested in reports of PTG, presumably yielding beneficial effects over time (Lahav, Bellin, et al., 2016). However, in the event that survivors unconsciously dissociate as a way to block out traumatic material, the process of schema reconstruction does not occur, or fails along the way (Lahav, Bellin, et al., 2016). Moreover, according to this view, a reversed version of schema reconstruction may take place, in which a fragmented and disintegrated belief system forms. Thus, under these conditions, reports of PTG do not reflect authentic changes but rather dissociative beliefs or narratives that are incongruent with the reality of past trauma and might co-exist in a disconnected manner with other beliefs or narratives that may be extremely negative and reflect the pain resulting from the unprocessed trauma. Although dissociative beliefs of PTG might be comforting in the short term (similar to other byproducts of dissociation) – as they may enable one to avoid experiencing the pain and loss caused by trauma – in the long term they may be maladaptive,

hampering the healing process and increasing the risk of distress and psychopathology (Lahav, Bellin, et al., 2016). Hence, contrary to genuine PTG which is assumed to be beneficial in the long term, the dissociative subtype of PTG may well have negative ramifications. A previous study among former-prisoners-of-war (ex-POWs) provides some support for these claims. For example, ex-POWs' reports of PTG were related to elevated dissociation as well as negative beliefs regarding the self and the world, thus implying that these reports were, in fact, part of a disintegrated dissociative belief system, rather than the reprocessing of the trauma (Lahav, Bellin, et al., 2016).

The present study took a further step in understanding the implications of PTG. This study was conducted among female CSA survivors who have reported incidences of sexual victimization and/or engagement in risky sex, and/or substance abuse/dependence during the previous year before the time of the study. As these characteristics were shown to be related to sexual revictimization (e.g., Scoglio, Kraus, Saczynski, Jooma, & Molnar, 2019), the present investigation provided an opportunity to explore the implications of PTG for sexual revictimization among highly vulnerable population. The first goal of this study was to explore the associations among PTG and both concurrent as well as subsequent sexual revictimization in CSA survivors. The second goal of this study was to examine the moderating role of dissociation within the associations among PTG and sexual revictimization in CSA survivors. Based on the theoretical perspective offered by Lahav, Bellin, et al. (2016), we hypothesized that the relations between PTG and subsequent sexual revictimization would be moderated by dissociation. Specifically, we expected that among participants with low dissociation, reports of PTG would reflect genuine transformation resulting from their struggles with the trauma, and thus would be related to lower rates of subsequent sexual revictimization. Experiencing growth and finding meaning in the trauma of CSA might serve as a resource that could not only further CSA survivors' adjustment and

well-being but might also reduce their tendency to adopt maladaptive coping strategies or risky sexual behaviors which are risk factors for sexual revictimization (Scoglio, et al., 2019). Conversely, we expected that among participants with high dissociation, the opposite direction of association among PTG and subsequent sexual revictimization would be found. Dissociative beliefs that appear as PTG may impede the ability to reprocess the trauma and may intensify psychopathology and maladaptive coping strategies – all of which increase the risk for sexual revictimization (e.g., Chu, 1992; Messman-Moore, Brown, & Koelsch, 2005). Additionally, dissociative beliefs of posttraumatic growth, arising from a disintegrated belief system, may reinforce the illusory sense of invulnerability, which, in turn, could lead to involvement in risky situations and additional victimization.

Method

Participants and Procedure

This study utilized data collected from adult female survivors of CSA who participated in group therapy as part of a 6-month efficacy trial evaluating the effectiveness of group psychotherapy for adult female CSA survivors with HIV risk factors (i.e., sexual revictimization, high-risk sexual behavior, or drug/ alcohol abuse or dependence) (Classen et al., 2011). Participants in the current investigation were assigned to either trauma-focused group therapy or present-focused group therapy.

Participants were recruited via newspaper advertisements and local community organizations. Four hundred and forty-eight women expressed interest in participating in the study and were screened via face-to-face or telephone interviews. Verbal consent was obtained before the screening began. Inclusion criteria were: (a) being female, (b) 18 years of age or older, (c) English speaker, (d) reporting at least two explicit memories of sexual abuse that involved genital contact, (e) reporting at least two sexual abuse events between the ages of 4 and 15, (f) reporting that the perpetrator was at least 5 years older than the victim, and

(g) having the ability to talk about the abuse in group therapy (Ginzburg et al., 2009, p. 537). Additionally, participants had to have experienced at least one of the following three HIV risk factors within the previous year: sexual revictimization, engagement in risky sex, or meeting DSM-IV criteria for substance abuse or dependence. Exclusion criteria were CSA described as ritual abuse, engagement in current psychotherapy, suicidality, or meeting criteria for schizophrenia, other psychotic disorders, dementia, delirium, or amnestic or other cognitive disorders according to the DSM-IV. Recruitment coordinators enrolled participants after reviewing eligibility status with the project director. The screening consent form included a statement that if the potential participants did not qualify for the study, they could request referral information. It also stated that if there was a risk for self-harm (e.g., resulting from severe depression) or harm from others, investigators would be obligated to take action, including hospital admission or the mandated reporting of abuse.

After baseline assessments were completed, participants were randomly assigned to either present- or trauma-focused group psychotherapy (for more information see Classen, Butler, & Spiegel, 2001). Participants were paid $25 for their participation in the baseline assessment and $50 for their participation in the 6-month follow-up assessment. All participants signed an informed consent protocol approved by (Masked for review) Human Subjects Committee.

One hundred and eleven women participated at baseline, and 95 participated at the 6-month follow-up. To handle the missing data, and to decide whether the data had missing values in a random pattern, we conducted analyses of differences between these groups in all of the variables, using Little's Missing Completely at Random (MCAR) test (Collins, Schafer, & Kam, 2001). Although the analysis revealed that data were missing completely at random, $X^2(177) = 132.651$, $p = .995$, an advanced method of maximum likelihood (ML)

imputation, which is considered optimal for attrition of participants over time (Collins, et al., 2001), was conducted using SPSS 25. The final sample included 111 participants.

The average age of the participants was 36.90 years (*SD* = 10.08). Eighteen (16.2%) had some level of graduate study education or a graduate degree, 72 (64.9%) had some college education or a bachelor's degree, and 20 (18.9%) reported some high school education or graduating high school. Sixty (54.1%) were working full-time jobs, 24 (21.6%) had part-time jobs, and 24 (21.6%) were not working. Thirty-seven (33.3%) never married, 36 (32.4%) were married or were cohabiting, and 30 (27.0%) were separated, divorced, or widowed. The mean age of onset of the sexual abuse was 7.09 years (*SD* = 3.14). The mean total years of sexual abuse was 7.67 (*SD* = 6.40).

As previously reported (Classen, et al., 2011; Ginzburg, et al., 2009), no differences were found between participants in the present- or trauma-focused-group psychotherapy, neither in background variables nor in sexual revictimization or dissociation, and neither at baseline nor at follow-up. The only exception was a small but significant difference in the levels of PTG at baseline, with trauma-focused-group-psychotherapy participants reporting higher levels of PTG compared with present-focused-group-psychotherapy participants, $t(109) = -2.17$, $p < 0.05$. Thus, we controlled for intervention type in the present study.

Measures

Posttraumatic growth and dissociation were measured at baseline; sexual revictimization was measured at both baseline and follow-up.

Posttraumatic Growth Inventory (Tedeschi & Calhoun, 1996). The PTGI is a 21-item measure of positive life changes after a trauma (e.g., "I learned a great deal about how wonderful people are"; "I developed new interests"; "Knowing I can handle difficulties"). Items were keyed to the experience of childhood sexual abuse and rated on a 6-point Likert scale, ranging from 0 (*I did not experience this change*) to 5 (*I experienced this change to a*

very great degree). The PTGI has shown good reliability in previous studies of cancer survivors (e.g., Sears et al., 2003). Cronbach alpha indicates that internal consistency was 0.96 at baseline.

The Multiscale Dissociation Inventory (MDI; Briere, 2002). The tendency towards dissociation was measured via MDI, a standardized and normed questionnaire consisting of 30 items that depict dissociative responses (e.g., "Realizing that you must have done something that you don't remember doing"; "Feeling outside of your self"; "Knowing you must be upset, but not being able to feel it"). Respondents indicate frequency of dissociation in the past month on a five-point Likert-type scale (1 = *never*, 5 = *very often*). The scale comprises six scales: Disengagement, Depersonalization, Derealization, Memory Disturbance, Emotional Constriction, and Identity Dissociation.

Available reliability and validity evidence for the MDI supports its psychometric merits (Blevins, Weathers, & Mason, 2012; Briere, Weathers, & Runtz, 2005). In the current study, a total score (the sum of all items of the six scales) was computed. Cronbach alpha indicates that internal consistency was 0.95 at baseline.

Sexual Experiences Survey (Koss & Gidycz, 1985). This scale consists of 13 items that reflect examples of sexually aggressive experiences, and is intended to facilitate recall of relevant events. The measure is used not only to tap experiences of sexual victimization but also to determine the nature of these experiences by classifying them as sexual coercion (Items 3– 7), attempted rape (Items 8 and 9), or rape (Items 10 –12). "Sexual coercion" included such items as "been in a situation where someone became so sexually aroused that you felt it was useless to stop him/her even though you did not want to have sexual intercourse." "Attempted rape" included such items as "been in a situation where someone tried to get sexual intercourse with you when you didn't want to by threatening to use physical force (twisting your arm, holding you down, etc.) if you didn't cooperate, but for

various reasons sexual intercourse did not occur." “Rape” included such items as "Have you ever been raped?" The scale was modified from a dichotomous format by requesting that participants report the number of times they had had each experience within the previous six months. In this study, three scores for sexual coercion, attempted rape, and rape were computed. This scale has been found to have high test-retest reliability (Koss & Gidyez, 1985).

Control variable. Intervention type served as a control variable. Intervention type was a dummy variable: Present-focused-group-psychotherapy was coded “0”, and trauma-focused-group-psychotherapy was coded “1.”

Analytic Strategy

We used SPSS 25 and PROCESS computational macro (Hayes, 2012) in conducting the current study’s analyses. To examine the associations between PTG, dissociation, and sexual revictimization, Pearson correlations were conducted. To examine the moderating role of levels of dissociation at baseline within the associations between PTG at baseline and sexual revictimization at follow-up, three hierarchical regression analyses were conducted for sexual coercion, attempted rape, and rape, respectively. To determine whether including the independent and control variables in the regression analyses was adequate, we assessed for multicollinearity, and examined the variance inflation factors (VIFs) for the study’s variables. Findings indicated that all were within the acceptable range (all VIFs were smaller than 2), indicating that multicollinearity was not a problem in our analyses.

The analyses included four blocks. The first block consisted of sexual revictimization at baseline (i.e., sexual coercion, attempted rape, or rape). The second block consisted of intervention type (trauma-focused group therapy vs. present-focused group therapy). The third block consisted of dissociation and PTG at baseline. The fourth block consisted of the interaction between dissociation and PTG at baseline. All the variables’ scores were

standardized. Significant interactions were probed using the PROCESS (Model 1) computational macro (Hayes, 2012).

Results

The Relationship between PTG, Dissociation, and Sexual Revictimization

Pearson correlations between the study variables are presented in Table 1. The correlations between PTG at baseline and sexual revictimization at baseline and follow-up were non-significant.

PTG and Sexual Revictimization - The Moderating Role of Dissociation

The hierarchical regression models predicting sexual coercion or rape at follow-up (see Table 2) were significant and explained 36.6% of the variance in sexual coercion at follow-up, $F(5,105) = 12.10$, $p<.001$, and 68.8% of the variance in rape at follow-up, $F(5,105) = 46.35$, $p<.001$. The hierarchical regression model predicting attempted rape was non-significant $F(5,105) = 1.07$, $p = .37$, and explained 4.9% of the variance in attempted rape at follow-up. None of the study's variables had a significant effect in predicting attempted rape at follow-up.

The hierarchical regression models for sexual coercion and rape at follow-up indicated similar trends. The first block in these models revealed significant effects for levels of sexual revictimization at baseline in predicting both sexual coercion and rape at follow-up. The higher the levels of sexual coercion or rape at baseline, the higher the levels of sexual coercion or rape at follow-up. The second block revealed non-significant effects for intervention type in predicting both sexual coercion and rape, indicating that there were non-significant differences between participants who took part in present-focused-group-psychotherapy vs. participants who took part in trauma-focused-group-psychotherapy in terms of levels of sexual coercion or rape at follow-up. The third block revealed a significant effect for dissociation in predicting rape at follow-up. The higher the level of dissociation at

baseline, the higher the levels of rape at follow-up. The third block revealed a significant effect for PTG at baseline in predicting sexual coercion or rape at follow-up. Yet the fourth block, which consisted of the interaction between PTG and dissociation, indicated that the effects of PTG on both sexual coercion and rape were moderated by dissociation.

The significant interactions between dissociation and PTG in predicting sexual coercion and rape were probed using the PROCESS (Model 1) computational macro (Hayes, 2012) by computing their conditional effects at 1 *SD* below and 1 *SD* above the mean of the moderator, i.e., levels of dissociation. These interactions are depicted in Figures 1 and 2. As can be seen in the figures, under conditions of low levels of dissociation, PTG at baseline had a non-significant effect in predicting either sexual coercion ($\beta = -.08$, $p = .46$) or rape at follow-up ($\beta = -.14$, $p = .08$). Yet among those individuals with high levels of dissociation, PTG at baseline acted as a risk factor, predicting elevated levels of sexual coercion and rape at follow-up ($\beta = .48$, $p < .001$; $\beta = .43$, $p < .001$, respectively).

Discussion

To the best of our knowledge, this is the first study that has investigated the relationship between PTG and subsequent sexual revictimization in CSA survivors. The present findings indicated no overall significant relations between PTG and sexual revictimization. At the same time, however, the results revealed that the associations between PTG and subsequent sexual revictimization were moderated by levels of dissociation: Whereas PTG at baseline had a non-significant effect in predicting sexual revictimization at follow-up in participants with low dissociation, PTG at baseline acted as a risk factor, predicting elevated levels of sexual revictimization in participants with high dissociation.

The current findings are consistent with our earlier work suggesting that the exploration of PTG and its consequences should include taking into account survivors' levels

of dissociation (Lahav, Bellin, et al., 2016). As might be apparent in the clinical setting (Lahav, Seligman, & Solomon, 2017), reports of PTG might not always mirror deep positive changes resulting from the survivors' struggles with the trauma. In fact, for some survivors, these reports might signal dissociative beliefs unconsciously aimed at keeping them detached from the pain that resulted from the trauma. Given that avoidance might prevent a "working through" of the trauma, and might hinder the process of schema reconstruction, these types of PTG reports may not only co-occur with contradictory negative beliefs regarding the self and the world in a disintegrated fashion (Lahav, Bellin, et al., 2016) but could also have negative consequences for adjustment in the long term. Results of a meta-analysis that indicated a significant positive relationship between PTG and PTSD symptoms (Shakespeare-Finch & Lurie-Beck, 2014), as well as other studies that have revealed PTG to be related to subsequent increased distress and negative outcomes (Greene, Lahav, Kanat-Maymon, & Solomon, 2015; Hobfoll et al., 2007; Lahav, Kanat-Maymon, & Solomon, 2017; Lahav, Solomon, & Levin, 2016), may reflect this phenomenon.

The present study suggests that the consequences of dissociative beliefs regarding PTG are broad and could also involve elevated risks for additional trauma exposure. The current results indicate that under conditions of high dissociation, PTG serves as a risk factor and predicts higher levels of subsequent sexual revictimization in the form of sexual coercion and rape. Given that sexual revictimization has multiple ramifications, and is linked with negative outcomes such as anxiety, depression, PTSD, dissociation, binge drinking, and drug use (Casey & Nurius, 2005; Kimerling, et al., 2007), the importance of understanding and potentially intervening in the face of risk factors should not be underestimated. Several explanatory routes may be proposed concerning these results.

The first explanation is that the unique combination of post-traumatic growth beliefs and high dissociation may reinforce feelings of invulnerability and thus lead to involvement

in risky situations. It might be that the dissociative quality of PTG beliefs enables CSA survivors to unconsciously detach from feelings of increased vulnerability that resulted from the trauma, and to preserve an illusory sense of invulnerability. Thus, as opposed to other CSA survivors who might appraise risk in a more realistic fashion as a result of their past trauma (Gidycz, McNamara, & Edwards, 2006; Weinstein, Lyon, Rothman, & Cuite, 2000), the sub-group of survivors with dissociation-based beliefs of PTG might show an under-evaluation of risk. Such optimistic appraisals, in turn, might prevent them from taking precautions and might therefore increase their propensity for putting themselves in risky situations (Shepperd, Carroll, Grace, & Terry, 2002) -- such as going out alone to a bar or meeting a date in an isolated place -- all of which increase the risk for revictimization.

At the same time, the present findings might also be rooted in the negative implications of the dissociative beliefs regarding PTG for CSA survivors' mental health. As was previously mentioned, holding beliefs of PTG while unconsciously using dissociation might thwart trauma survivors' ability to process the trauma (Lahav, Bellin, et al., 2016; Maercker & Zoellner, 2004). These beliefs might lead to intensified distress and psychopathology in the long run, which could put such trauma survivors at risk for further victimization.

Dissociative beliefs appearing as PTG might strengthen dissociative symptoms and numbness which harm the ability to perceive threats accurately (Chu, 1992) and to identify emotional states that serve as important warning signs (Cloitre, Scarvalone, & Difede, 1997). Additionally, the psychological difficulties stemming from the fragmented unintegrated belief system might make survivors prone towards adopting maladaptive coping strategies, such as substance abuse (Messman-Moore & Long, 2002) or risky sexual behaviors (Messman-Moore, Walsh, & DiLillo, 2010), which are related to an increased risk of sexual revictimization.

Posttraumatic Growth, Dissociation and Sexual Revictimization

A third explanation for the present findings might be rooted in the effects of the dissociative beliefs of PTG on the victim-perpetrator dynamic. Dissociative beliefs appearing as PTG might counteract a "working through" of the trauma, and therefore might increase the survivor's propensity for re-experiencing and re-enacting the traumatic past in an unconscious effort to control it (Van der Kolk, 1989). Hence, CSA survivors who hold dissociative beliefs or narratives regarding posttraumatic growth might tend to react to additional threats by potential perpetrators in ways that are similar to how they reacted when they were abused during childhood. Specifically, when confronted with potential perpetrators, these CSA survivors might respond with an extreme submissiveness and appeasement rather than with situationally-appropriate responses. Whereas these interpersonal patterns might have been essential for survival during childhood abuse, they are likely counterproductive in the ensuing years. Passivity and compliance may in fact attract potential perpetrators, given that perpetrators might interpret these characteristics as signs of weakness. Furthermore, when facing a current threat, these qualities might prevent CSA survivors from engaging in resistance behaviors (Lahav, Talmon, Ginzburg, & Spiegel, 2019).

Dissociative beliefs of posttraumatic growth might also deepen victims' confusion when facing potential perpetrators. Sexual assaults often take place within interactions that involve positive elements alongside warning signs (Nurius & Norris, 1996), and might give rise to a conflict in victims regarding the delivery of assertive responses, seeing that such responses yield both benefits and costs (Nurius, Norris, Young, Graham, & Gaylord, 2000). Holding false beliefs of posttraumatic growth in a dissociative fashion might be an additional source of confusion during such complicated situations. Furthermore, these illusory beliefs might go hand-in-hand with other distorted perceptions regarding past abuse, such as blaming oneself for the abuse, or perceiving the perpetrator as a helpless victim (Davies & Frawley,

1994). This, in turn, could intensify survivors' difficulties in identifying their feelings, thoughts, and perceptions, and self-validating them when in situations of face-to-face contact with the perpetrator's psychological manipulations.

Contrary to our hypothesis, PTG did not serve as a protective factor in CSA survivors with low dissociation. Our findings indicate that under conditions of low dissociation, PTG had non-significant effects on subsequent sexual revictimization in CSA survivors. These findings are in line with previous evidence regarding the non-significant relations between PTG and indicators of distress (Grubaugh & Resick, 2007), but at the same time are inconsistent with previous findings regarding the association between PTG and positive outcomes (Frazier, et al., 2001).

The present results might suggest that the beneficial effects of a positive transformation resulting from struggling with trauma might be applicable to specific domains but not to others. Perhaps authentic positive changes, which are manifested in PTG, relieve CSA survivors' distress and enhance feelings of optimism and hope, but at the same time do not lessen their risks for additional victimization. Alternatively, the current findings may be linked to the unique characteristics of the present sample. It might be that although authentic reports of PTG have beneficial effects on revictimization, these effects could not be detected due to the characteristics of this sample. For example, it might be that experiencing genuine PTG did decrease the propensity for substance abuse or risky sexual behaviors, which are risk factors for sexual revictimization. Nevertheless, perhaps this beneficial effect of PTG could not be detected statistically in the current sample of participants due to their already high levels of substance abuse and risky sexual behaviors. Another option might be that experiencing authentic PTG did enhance specific aspects that have beneficial effects on revictimization, such as emotion regulation (Scoglio, et al., 2019); however, the negative implications of substance abuse and risky sexual behaviors, which were not affected by PTG

and were prevalent in the present study, may have overshadowed these effects. Future studies among other samples of CSA survivors are needed in order to explore these speculations.

The present findings must be understood in light of several limitations. First, the current study relied on self-report measures, which may be subject to response biases and shared method variance. Future studies should include additional methods of data collection, such as clinical interviews. Second, the present study did not include data regarding potential mechanisms within the relationship among PTG, dissociation, and sexual revictimization, such as risk evaluation or self-protective behaviors. Future investigations should assess these variables as a way to uncover the processes underlying higher levels of sexual revictimization in CSA survivors who report high levels of PTG and dissociation. Third, the relatively modest sample size as well as the singular characteristics of the present sample (CSA survivors who had multiple abuse experiences and engagement in HIV risk behaviors) raise issues regarding the generalizability of the present findings to other populations of CSA survivors. Additional prospective studies among large samples of CSA survivors are important.

Bearing in mind these limitations, this study represents one step towards understanding the conditional effects of PTG in female CSA survivors with HIV risk factors. The current findings suggest that PTG combined with dissociation might be a risk factor for subsequent sexual revictimization. It is important to point out that the present findings should not be taken to suggest that CSA survivors who hold dissociative beliefs of PTG are in any way responsible for their revictimization. The perpetrators of these crimes are the sole persons responsible. Yet, at the same time, uncovering the potential negative effects of PTG on revictimization has important clinical implications and might promote clinical interventions aimed at reducing CSA survivors' risks of additional sexual victimization.

Our findings indicate the need for clinicians to take a cautious approach when treating CSA survivors who report PTG. Instead of uncritically interpreting PTG reports – i.e., taking them "at face value" – and encouraging them, a profound evaluation of their nature while taking into account the levels of dissociation involved is essential. Posttraumatic growth may falsely reduce the clinician's anxiety as well as that of the patient, leading them to miss crucial opportunities for reducing future risk. As the present findings imply, whereas some survivors might experience a deep positive transformation following trauma, others' reports of PTG could be dissociative beliefs, which might increase their vulnerability to revictimization. Uncovering these distinctive types of PTG reports might be relevant as well for clinical interventions aimed at reducing CSA survivors' risks for revictimization. Furthermore, a weakening of false posttraumatic growth beliefs alongside an enhancement of the ability to experience the emotional pain resulting from the trauma could be effective in the treatment of those with dissociative responses to trauma.

References

American Psychiatric Association. (2013). *Diagnostic and statistical manual of mental health disorders: DSM-5* (5 ed.): Arlington. VA : American Psychiatric Publishing.

Blevins, C. A., Weathers, F. W., & Mason, E. A. (2012). Construct validity of three depersonalization measures in trauma-exposed college students. *Journal of Trauma & Dissociation, 13*(5), 539-553.

Breitenbecher, K. H. (2001). Sexual revictimization among women: A review of the literature focusing on empirical investigations. *Aggression and Violent Behavior, 6*(4), 415-432.

Briere, J. (2002). *Multiscale Dissociation Inventory (MDI)*. Odessa, FL: Psychological Assessment Resources.

Briere, J., & Elliott, D. M. (2003). Prevalence and psychological sequelae of self-reported childhood physical and sexual abuse in a general population sample of men and women. *Child Abuse & Neglect, 27*(10), 1205-1222.

Briere, J., Weathers, F. W., & Runtz, M. (2005). Is dissociation a multidimensional construct? Data from the Multiscale Dissociation Inventory. *Journal of Traumatic Stress: Official Publication of The International Society for Traumatic Stress Studies, 18*(3), 221-231.

Calhoun, L. G., & Tedeschi, R. G. (1990). Positive aspects of critical life problems: Recollections of grief. *Omega-Journal of Death and Dying, 20*(4), 265-272.

Calhoun, L. G., & Tedeschi, R. G. (2006). *Handbook of posttraumatic growth: Research and practice*. Mahwah, NJ: : Lawrence Erlbaum.

Casey, E. A., & Nurius, P. S. (2005). Trauma exposure and sexual revictimization risk: Comparisons across single, multiple incident, and multiple perpetrator victimizations. *Violence Against Women, 11*(4), 505-530.

Chu, J. A. (1992). The revictimization of adult women with histories of childhood abuse. *The Journal of Psychotherapy Practice and Research, 1*(3), 259-269.

Classen, C., Butler, L. D., & Spiegel, D. (2001). A treatment manual for present-focused and trauma-focused group therapies for sexual abuse survivors at risk for HIV infection: Stanford, CA: Department of Psychiatry and Behavioral Sciences, Stanford University School of Medicine.

Classen, C., Koopman, C., & Spiegel, D. (1993). Trauma and dissociation. *Bulletin of the Menninger Clinic, 57*(2), 178-194.

Classen, C., Palesh, O. G., Cavanaugh, C. E., Koopman, C., Kaupp, J. W., Kraemer, H. C., . . . Spiegel, D. (2011). A comparison of trauma-focused and present-focused group

therapy for survivors of childhood sexual abuse: A randomized controlled trial. *Psychological Trauma: Theory, Research, Practice, and Policy, 3*(1), 84-93.

Cloitre, M., Scarvalone, P., & Difede, J. (1997). Posttraumatic stress disorder, self-and interpersonal dysfunction among sexually retraumatized women. *Journal of Traumatic Stress, 10*(3), 437-452.

Collins, L. M., Schafer, J. L., & Kam, C.-M. (2001). A comparison of inclusive and restrictive strategies in modern missing data procedures. *Psychological Methods, 6*(4), 330-351.

Davies, J. M., & Frawley, M. G. (1994). Eight transference countertransference positions *Treating the adult survivor of childhood sexual abuse*. New York: Basic Books.

Davis, C. G., & McKearney, J. M. (2003). How do people grow from their experience with trauma or loss? *Journal of Social and Clinical Psychology, 22*(5), 477-492.

Frazier, P., Conlon, A., & Glaser, T. (2001). Positive and negative life changes following sexual assault. *Journal of Consulting and Clinical Psychology, 69*(6), 1048-1055.

Gidycz, C. A., McNamara, J. R., & Edwards, K. M. (2006). Women's risk perception and sexual victimization: A review of the literature. *Aggression and Violent Behavior, 11*(5), 441-456.

Ginzburg, K., Butler, L. D., Giese-Davis, J., Cavanaugh, C. E., Neri, E., Koopman, C., . . . Spiegel, D. (2009). Shame, guilt, and posttraumatic stress disorder in adult survivors of childhood sexual abuse at risk for human immunodeficiency virus: outcomes of a randomized clinical trial of group psychotherapy treatment. *The Journal of Nervous and Mental Disease, 197*(7), 536-542.

Greene, T., Lahav, Y., Kanat-Maymon, Y., & Solomon, Z. (2015). A Longitudinal Study of Secondary Posttraumatic Growth in Wives of Ex-POWs. *Psychiatry: Interpersonal and Biological Processes, 78*(2), 186-197.

Grubaugh, A. L., & Resick, P. A. (2007). Posttraumatic growth in treatment-seeking female assault victims. *Psychiatric Quarterly, 78*(2), 145-155.

Hayes, A. F. (2012). PROCESS: A versatile computational tool for observed variable mediation, moderation, and conditional process modeling.

Helgeson, V. S., Reynolds, K. A., & Tomich, P. L. (2006). A meta-analytic review of benefit finding and growth. *Journal of Consulting and Clinical Psychology, 74*(5), 797-816.

Hobfoll, S. E., Hall, B. J., Canetti-Nisim, D., Galea, S., Johnson, R. J., & Palmieri, P. A. (2007). Refining our understanding of traumatic growth in the face of terrorism: Moving from meaning cognitions to doing what is meaningful. *Applied Psychology, 56*(3), 345-366.

Kaye-Tzadok, A., & Davidson-Arad, B. (2016). Posttraumatic growth among women survivors of childhood sexual abuse: Its relation to cognitive strategies, posttraumatic symptoms, and resilience. *Psychological Trauma: Theory, Research, Practice, and Policy, 8*(5), 550-558.

Kimerling, R., Alvarez, J., Pavao, J., Kaminski, A., & Baumrind, N. (2007). Epidemiology and consequences of women's revictimization. *Women's Health Issues, 17*(2), 101-106.

Kleim, B., & Ehlers, A. (2009). Evidence for a curvilinear relationship between posttraumatic growth and posttrauma depression and PTSD in assault survivors. *Journal of Traumatic Stress: Official Publication of The International Society for Traumatic Stress Studies, 22*(1), 45-52.

Koss, M. P., & Gidycz, C. A. (1985). Sexual experiences survey: reliability and validity. *Journal of Consulting and Clinical Psychology, 53*(3), 422-423.

Lahav, Y., Bellin, E., & Solomon, Z. (2016). Posttraumatic growth and shattered world assumptions among ex-POWs: The role of dissociation. *Psychiatry: Interpersonal and Biological Processes*

Lahav, Y., Kanat-Maymon, Y., & Solomon, Z. (2017). Posttraumatic growth and dyadic adjustment among war veterans and their wives. *Frontiers in Psychology, 8*, 1102.

Lahav, Y., Seligman, Z., & Solomon, Z. (2017). Countertransference in the face of growth: reenactment of the trauma

In D. R. Aleksandrowicz & A. O. Aleksandrowicz (Eds.), *Countertransference in perspective: The double-edged sword of the patient-therapist emotional relationship* (pp. 57-79): Sussex: Academic Press.

Lahav, Y., Solomon, Z., & Levin, Y. (2016). Posttraumatic growth and perceived health: The role of posttraumatic stress symptoms. *American Journal of Orthopsychiatry, 86*(6), 693-703. doi: 10.1037/ort0000155

Lahav, Y., Talmon, A., Ginzburg, K., & Spiegel, D. (2019). Reenacting Past Abuse–Identification with the Aggressor and Sexual Revictimization. *Journal of Trauma & Dissociation*. doi: 10.1080/15299732.2019.1572046

Lev-Wiesel, R., Amir, M., & Besser, A. (2004). Posttraumatic growth among female survivors of childhood sexual abuse in relation to the perpetrator identity. *Journal of Loss and Trauma, 10*(1), 7-17.

Linley, P. A., & Joseph, S. (2004). Positive change following trauma and adversity: A review. *Journal of Traumatic Stress, 17*(1), 11-21.

Maercker, A., & Zoellner, T. (2004). The Janus face of self-perceived growth: Toward a two-component model of posttraumatic growth. *Psychological Inquiry, 15*, 41-48.

McFarland, C., & Alvaro, C. (2000). The impact of motivation on temporal comparisons: coping with traumatic events by perceiving personal growth. *Journal of Personality and Social Psychology, 79*(3), 327-343.

Messman-Moore, T. L., & Long, P. J. (2002). Alcohol and substance use disorders as predictors of child to adult sexual revictimization in a sample of community women. *Violence and Victims, 17*(3), 319-340.

Messman-Moore, T. L., Walsh, K. L., & DiLillo, D. (2010). Emotion dysregulation and risky sexual behavior in revictimization. *Child Abuse & Neglect, 34*(12), 967-976.

Messman-Moore, T. L., Brown, A. L., & Koelsch, L. E. (2005). Posttraumatic symptoms and self-dysfunction as consequences and predictors of sexual revictimization. *Journal of Traumatic Stress, 18*(3), 253-261.

Noll, J. G., Horowitz, L. A., Bonanno, G. A., Trickett, P. K., & Putnam, F. W. (2003). Revictimization and self-harm in females who experienced childhood sexual abuse: Results from a prospective study. *Journal of Interpersonal Violence, 18*(12), 1452-1471.

Nurius, P. S., & Norris, J. (1996). A cognitive ecological model of women's response to male sexual coercion in dating. *Journal of Psychology & Human Sexuality, 8*(1-2), 117-139.

Nurius, P. S., Norris, J., Young, D. S., Graham, T. L., & Gaylord, J. (2000). Interpreting and defensively responding to threat: Examining appraisals and coping with acquaintance sexual aggression. *Violence and Victims, 15*(2), 187-208.

Paolucci, E. O., Genuis, M. L., & Violato, C. (2001). A meta-analysis of the published research on the effects of child sexual abuse. *The Journal of Psychology, 135*(1), 17-36.

Scoglio, A. A., Kraus, S. W., Saczynski, J., Jooma, S., & Molnar, B. E. (2019). Systematic review of risk and protective factors for revictimization after child sexual abuse. *Trauma, Violence, & Abuse*. doi: 10.1177/1524838018823274

Shakespeare-Finch, J., & Armstrong, D. (2010). Trauma type and posttrauma outcomes: Differences between survivors of motor vehicle accidents, sexual assault, and bereavement. *Journal of Loss and Trauma, 15*(2), 69-82.

Shakespeare-Finch, J., & De Dassel, T. (2009). Exploring posttraumatic outcomes as a function of childhood sexual abuse. *Journal of Child Sexual Abuse, 18*(6), 623-640.

Shakespeare-Finch, J., & Lurie-Beck, J. (2014). A meta-analytic clarification of the relationship between posttraumatic growth and symptoms of posttraumatic distress disorder. *Journal of Anxiety Disorders, 28*(2), 223-229.

Shepperd, J. A., Carroll, P., Grace, J., & Terry, M. (2002). Exploring the causes of comparative optimism. *Psychologica Belgica, 42*, 65-98.

Spiegel, D. (1991). Dissociation and trauma. In A. Tasman & S. M. Goldfinger (Eds.), *American Psychiatric Press Review of Psychiatry* (pp. 261-275). Washington, D.C: American Psychatric Press, Inc.

Tedeschi, R. G., & Calhoun, L. G. (1988). *Perceived benefits in coping with physical handicaps.* Paper presented at the annual meeting of the American Psychological Association, Atlanta, GA.

Tedeschi, R. G., & Calhoun, L. G. (1996). The Posttraumatic Growth Inventory: Measuring the positive legacy of trauma. *Journal of Traumatic Stress, 9*(3), 455-471.

Tedeschi, R. G., & Calhoun, L. G. (2004). Posttraumatic Growth: Conceptual Foundations and Empirical Evidence. *Psychological Inquiry, 15*(1), 1-18.

Tedeschi, R. G., Shakespeare-Finch, J., Taku, K., & Calhoun, L. G. (2018). *Posttraumatic growth: theory, research, and applications*: Routledge.

Ulloa, E., Guzman, M. L., Salazar, M., & Cala, C. (2016). Posttraumatic growth and sexual violence: A literature review. *Journal of Aggression, Maltreatment & Trauma, 25*(3), 286-304.

Van der Kolk, B. A. (1989). The compulsion to repeat the trauma. *Psychiatric Clinics of North America, 12*(2), 389-411.

Walker, H. E., Freud, J. S., Ellis, R. A., Fraine, S. M., & Wilson, L. C. (2017). The prevalence of sexual revictimization: A meta-analytic review. *Trauma, Violence, & Abuse, 20*(1), 67-80. doi: 1524838017692364

Weinstein, N. D., Lyon, J. E., Rothman, A. J., & Cuite, C. L. (2000). Changes in perceived vulnerability following natural disaster. *Journal of Social and Clinical Psychology, 19*(3), 372-395.

Zoellner, T., & Maercker, A. (2006). Posttraumatic growth in clinical psychology—A critical review and introduction of a two component model. *Clinical Psychology Review, 26*(5), 626-653.

Table 1. *Inter-correlations among the study variables*

Measure	1	2	3	4	5	6	7	8
1. PTG total (baseline)	-							
2. Dissociation (baseline)	-.17	-						
3. Revictimization - Sexual Coercion (baseline)	-.04	.15	-					
4. Revictimization - Attempted Rape (baseline)	.07	.40***	.07	-				
5. Revictimization - Rape (baseline)	-.08	.18	.34**	.32**	-			
6. Revictimization - Sexual Coercion (follow-up)	.13	.17	.51***	.37***	.10	-		
7. Revictimization - Attempted Rape (follow-up)	.14	-.08	.53***	-.04	-.04	.72***	-	
98. Revictimization - Rape (follow-up)	.04	.32**	.28**	.67***	.75**	.53***	.18	-
M	50.91	58.92	9.47	.23	.65	2.50	.08	.23
(*SD*)	(25.14)	(20.95)	(25.31)	(1.04)	(2.91)	(6.69)	(.49)	(.87)

Note. * = $p < .05$; ** = $p < .01$; *** = $p < .001$

Table 2. *Regression beta standardized coefficients predicting sexual revictimization at follow-up (n=111).*

		Sexual Coercion		**Attempted Rape**		**Rape**	
		β	*R^2 change*	*β*	*R^2 change*	*β*	*R^2 change*
Block1	Sexual revictimization (baseline)	.51***	.26	-.04	.00	.75***	.56
Block 2	Sexual revictimization (baseline)	.49***	.00	-.05	.03	.74***	.00
	Intervention Type	.00		.16		.05	
Block 3	Sexual revictimization (baseline)	.49***	.04	-.04	.02	.72***	.05
	Intervention Type	-.04		.14		.03	
	Dissociation (baseline)	.13		-.05		.21**	
	PTG total (baseline)	.18*		.11		.13*	
Block 4	Sexual revictimization (baseline)	.50***	.07	.02	.00	.71***	.07
	Intervention Type	-.06		.14		.00	
	Dissociation (baseline)	.17*		-.09		.26***	
	PTG total (baseline)	.20*		.09		.14*	
	Dissociation X PTG total (baseline)	.28**		-.11		.29***	

*Note: All study variables were standardized. * p<0.05 **p<0.01 ***p<0.001*

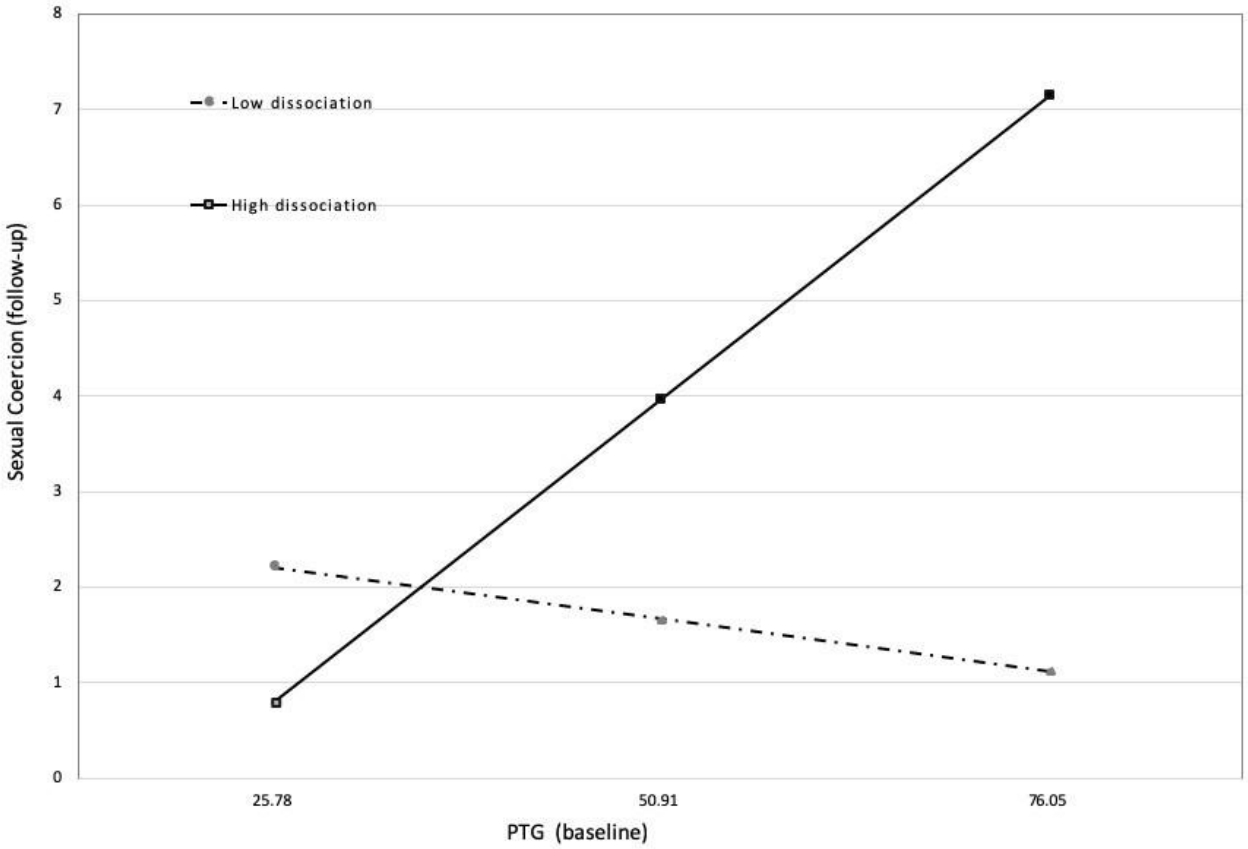

Figure 1. The moderating role of dissociation within the association between PTG at baseline and sexual coercion at follow-up.

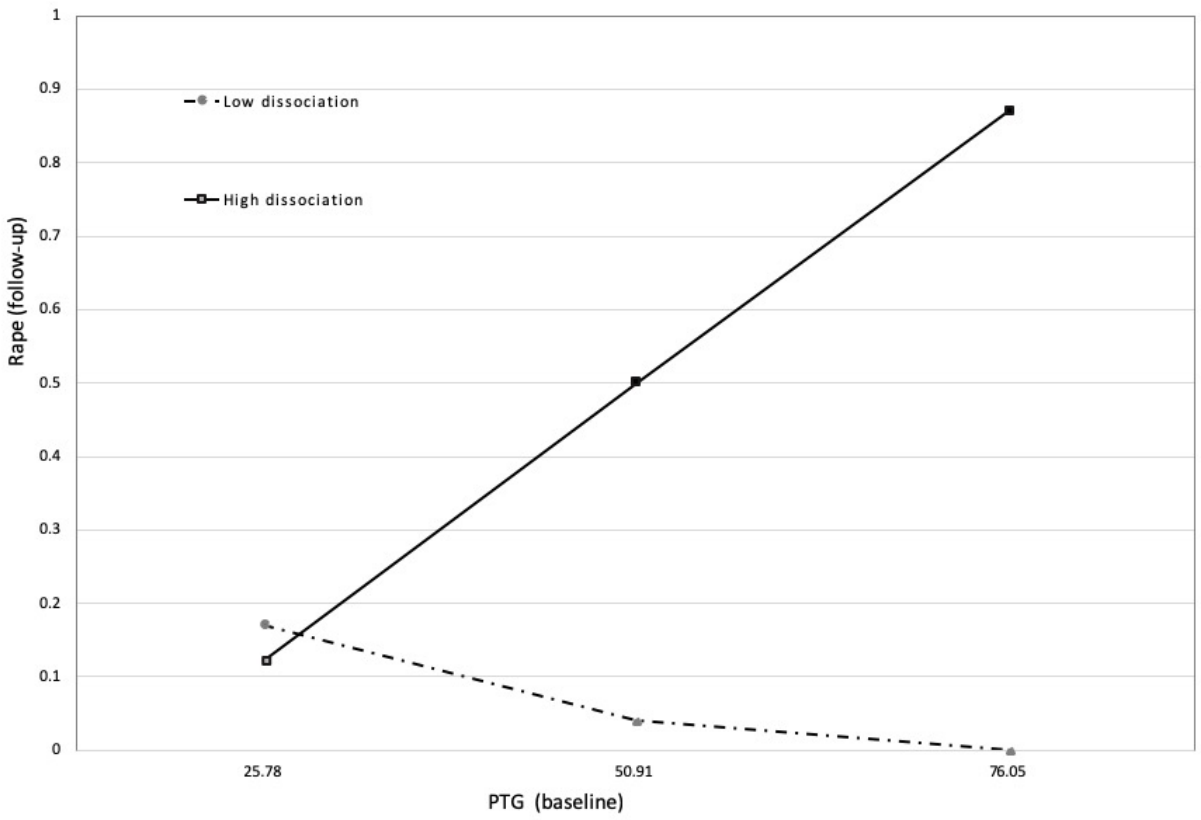

Figure 2. The moderating role of dissociation within the association between PTG at baseline and rape at follow-up.