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Trauma-Informed Care and Health Among LGBTQ Intimate Partner Violence Survivors

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Abstract

Intimate partner violence (IPV) and its health consequences occur among lesbian, gay, bisexual, transgender, and queer (LGBTQ) individuals at rates equal to or higher than cisgender heterosexual individuals. Trauma-informed care (TIC) is one service approach with emerging empirical support for use with IPV survivors, but without attention to the LGBTQ population. Structural equation modeling was used to assess associations between TIC and mental and physical health through several mechanisms among 239 LGBTQ adults who had experienced IPV and sought healthcare services within the past year (Mage = 27.66; 66.7% White; 43.9% cisgender women). Participants reported their perceptions of TIC in their services received; their sense of empowerment, emotion regulation, shame, and social withdrawal (all conceived as mobilizing mechanisms through which TIC could be associated with health); and their mental health (depression and posttraumatic stress disorder [PTSD]), and physical health (somatic symptoms and chronic health conditions). Those who perceived greater TIC in their services reported greater empowerment and emotion regulation, and lower social withdrawal. In turn, lower social withdrawal and shame were associated with better mental health, while lower shame also was associated with better physical health. Indirect associations between TIC and mental and physical health through the four mobilizing mechanisms were not significant, however, with the exception of a small indirect effect on mental health through lower social withdrawal. Results suggest that practitioners need to develop services to be used in conjunction with a general TIC approach to improve health and target shame among LGBTQ IPV survivors.

Keywords

trauma-informed care; LGBTQ; intimate partner violence; health; shame

Intimate partner violence (IPV) is a public health concern primarily studied among cisgender heterosexual individuals (Dempsey, 2010). Nevertheless, there is growing evidence that IPV occurs among lesbian, gay, bisexual, transgender, and queer (LGBTQ)

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individuals at equal or even higher rates as cisgender heterosexual individuals (Walters, Chen, & Breiding, 2013). The Centers for Disease Control and Prevention (CDC) found that 44% of lesbian women and 61% of bisexual women, compared with 35% of heterosexual women, reported experiencing IPV. In addition, 63% of gay and bisexual men, compared with 29% of heterosexual men, reported experiencing IPV (Walters et al., 2013). Other studies have shown greater risk of IPV among transgender individuals (e.g., 51.7% transgender vs. 34.2% cisgender; Langenderfer-Magruder, Whitfield, Walls, Kattari, & Ramos, 2016). Risser et al. (2005) demonstrated that 50.0% of transgender women have experienced IPV. These findings suggest that transgender people may confront similar levels, if not higher levels, of IPV as compared with sexual minority men and women (Brown & Herman, 2015). Health consequences of IPV are well documented (Breiding, Black, & Ryan, 2008), particularly among bisexual and transgender survivors (for a review, see Miller et al., 2016), and growing evidence highlights that trauma is a primary predictor of the need for services (Beckett, Holmes, Phipps, Patton, & Molloy, 2017). Despite this evidence, there remains limited research on LGBTQ IPV survivors and the extent to which they have received trauma-informed services. This study addresses this limitation by considering how LGBTQ IPV survivors' perceptions of receiving trauma-informed care (TIC) services may relate to better mental and physical health indirectly through psychologically and socially mobilizing factors.

TIC is a service delivery approach receiving increasing empirical support for use with IPV survivors (Warshaw, Lyon, Bland, Phillips, & Hooper, 2014). One fundamental assumption of TIC is that all clients may have experienced trauma, and this awareness is used to inform how services are delivered (Elliott, Bjelajac, FalLOT, Markoff, & Reed, 2005). A TIC approach is designed to minimize the risk that clients may be retraumatized (e.g., to avoid triggering survivors when gathering history); it involves providing culturally sensitive services; builds on survivor strengths; and facilitates opportunities for social connection (Elliott et al., 2005; Goodman et al., 2016). Whereas trauma-specific treatments refer to evidence-based interventions (e.g., prolonged exposure) that address posttrauma symptoms, TIC is a broader approach to client care that can be used across different types of interventions and treatment settings (Baker, Brown, Wilcox, Overstreet, & Arora, 2016).

There is growing research on the potential benefits of receiving TIC, such as greater symptom reduction, reduced time in treatment prior to discharge, and improved mental health (Morrissey et al., 2005). One study also found lower levels of PTSD, depression, somatic complaints, physical illnesses, and increased service utilization among clients who received TIC-informed substance use treatment as compared with clients who received substance use treatment that was not TIC-informed (Amaro, Chernoff, Brown, Arévalo, & Gatz, 2007). Although TIC has been linked to improved well-being among trauma survivors in general (Morrissey et al., 2005), there has been limited research on TIC for IPV survivors, specifically. Furthermore, no studies to our knowledge have considered TIC among LGBTQ IPV survivors. TIC holds promise for LGBTQ IPV survivors who are not only at heightened risk for IPV (Walters et al., 2013), but who also face difficulty accessing affirmative treatment (Calton, Cattaneo, & Gebhard, 2016).

Recent efforts have aimed to operationalize specific dimensions of TIC and to assess them based on survivors' perceptions of services they receive. For instance, the Trauma-Informed Practice (TIP) Scales (Goodman et al., 2016) target the dimensions of (a) promoting agency and mutual respect, (b) providing access to information on trauma, (c) increasing opportunities for connection, and (d) emphasizing client strengths. TIC, among LGBTQ IPV survivors, also may include sensitivity to LGBTQ-specific stressors such as identity concealment or identity-based partner victimization (Woulfe & Goodman, 2018). As such, LGBTQ IPV survivors' perceptions of their provider's sensitivity to LGBTQ-specific stressors is considered as a dimension of TIC in this study.

There has been a call to identify indirect pathways through which interventions promote health among LGBTQ individuals (Pachankis, 2015). This issue is addressed in this study by examining whether LGBTQ IPV survivors' perceptions of receiving TIC from services relate to better mental and physical health indirectly through mobilizing processes. This study focused on factors that reflect psychological and social mobilization for LGBTQ IPV survivors because relational trauma, including IPV, can have especially immobilizing effects (Heller & LaPierre, 2012). For example, dissociation and social withdrawal are immobilizing effects of IPV, which are themselves associated with elevated risk for health concerns (Schore, 2013). Many LGBTQ IPV survivors also experience discrimination, which can be immobilizing (e.g., leading to greater shame, loneliness, emotion dysregulation, and lower agency; Hatzenbuehler, 2009; Pachankis et al., 2015). TIC might be well-positioned to counteract these effects to facilitate mobilization and better health for IPV survivors. As such, this study considers mobilizing variables through which TIC may be associated with better health.

Informed by the trauma and minority stress literature, several psychological and social mobilizing mediators are proposed: (a) lower social withdrawal (Schore, 2013), (b) lower shame (Beck et al., 2011), (c) greater emotion regulation (Gross & John, 2003), and (d) greater empowerment (Herman, 1992). These specific variables are important to consider among LGBTQ IPV survivors. Social withdrawal may be particularly deleterious for LGBTQ IPV survivors who feel isolated within an overall stigmatizing societal context and their LGBTQ community (Lehavot & Simoni, 2011). Shame is prevalent among LGBTQ IPV survivors who contend with self-blame from IPV and their marginalized social status (Mohr & Fassinger, 2006). Emotion regulation is considered, as it may be difficult for LGBTQ IPV survivors who experience fear and avoidance as a response to trauma and minority stress (Hatzenbuehler, 2009). Sense of empowerment (defined in the IPV literature as personal choice, finding voice, and transcending oppression; Goodman et al., 2014) may be lower for LGBTQ IPV survivors, given their experiences of helplessness related to trauma and discrimination (Otis, Rostosky, Riggle, & Hamrin, 2006).

Extant research suggests potential reasons why TIC could be directly associated with each of these four variables, which in turn could relate to broader health concerns. First, in relation to social withdrawal, an important way to reduce isolation after traumatic experiences is to connect survivors with others who have similar experiences and who can normalize the impact of trauma (Herman, 1992). To this end, a core TIC dimension is to increase opportunities for connection with other survivors (Goodman et al., 2016). Thus, survivors

who report greater perceptions of TIC in their service might report lower levels of social withdrawal. Second, LGBTQ IPV survivors who perceive receiving greater TIC in their services may report lower shame. TIC emphasizes and builds on survivors' personal strengths (Elliott et al., 2005). In this manner, TIC may mitigate shame that could otherwise result from anti-LGBTQ messages directed at survivors from their partners (i.e., as a form of identity abuse; Woulfe & Goodman, 2018). This could be especially important for LGBTQ IPV survivors who are at heightened risk of engaging in self-blame to manage IPV and minority stress (Newcomb & Mustanski, 2010).

Third, TIC may be associated with greater emotion regulation among LGBTQ IPV survivors. One major aim of TIC is to provide clients with information on trauma (Elliott et al., 2005). Gaining information on the effect of trauma on the body and interpersonal relationships, for example, could assist clients in reality testing when experiencing emotion dysregulation (Linehan et al., 2015). TIC also may promote greater emotion regulation because of its emphasis on culturally competent service provision, which studies show may relate to LGBTQ individuals' feeling more capable to process their emotional experiences (Hill, 2009).

Finally, TIC aims to foster an environment of agency and mutual respect (Elliott et al., 2005; Goodman et al., 2016) and to enhance survivors' capacity to access internal and external resources (Bloom et al., 2003; Hopper, Bassuk, & Olivet, 2010). Therefore, TIC might be related to greater empowerment for LGBTQ IPV survivors who, in addition to the lack of control associated with IPV, also struggle with helplessness resulting from discrimination and other stigma-related stressors (Otis et al., 2006).

This current study considers potential indirect associations between TIC and mental and physical health among LGBTQ IPV survivors through the more proximal set of factors noted above, which TIC is intended to directly affect. Notably, some of these factors (e.g., greater shame) have been identified as proximal mediators of the association between stigma-related stress and mental health concerns among LGBTQ individuals (Hatzenbuehler, 2009). TIC could offer a direct contrast to these associations: for example, whereas anti-LGBTQ discrimination and IPV relate to greater social withdrawal and shame, TIC may be associated with lower social withdrawal and shame, which may ultimately predict lower health concerns.

In addition to the reasons noted for why TIC may relate to these factors, other findings suggest that these factors may be associated with broader indices of mental and physical health. Treatment approaches that facilitate coping through emotion regulation may improve health for LGBTQ individuals (Pachankis, 2015). Also, practitioners may be instrumental in helping LGBTQ IPV survivors mitigate health consequences of IPV through accessing social support, as lower isolation can, indeed, improve overall health (Meyer, 2003). Third, previous research suggests that services for IPV survivors that aim to lower shame relate to better mental health, including reduced PTSD (Beck et al., 2011). For instance, specific to sexual minority young men, a transdiagnostic cognitive-behavioral treatment targeting internalized homophobia reduced depression (Pachankis et al., 2015). Finally, interventions

that have incorporated empowerment reduce survivors' symptoms of PTSD and depression (Johnson & Zlotnick, 2006).

The Present Study

This study examines LGBTQ IPV survivors' perceptions of TIC they received from the primary setting in which they accessed care as well as the degree to which experiencing TIC relates to better mental and physical health. Furthermore, a set of mobilizing factors through which TIC could be associated with mental and physical health among LGBTQ IPV survivors is considered (see Figure 1). It is hypothesized that greater perceptions of receiving TIC will be significantly associated with each mobilizing factor (i.e., lower social withdrawal, lower shame, greater emotion regulation, and greater empowerment) and that each mobilizing factor will itself be related to better mental and physical health. Finally, it is hypothesized that TIC will have indirect associations with mental and physical health through these mobilizing factors.

Method

Participants and Procedures

Participants were 239 LGBTQ adults (43.9% cisgender women; 66.7% White) ages 18 to 71 ($M = 27.66$, $SD = 9.27$). All heterosexuals also identified as transgender and so were included in the analyses. The largest percentage of participants reported utilizing one health service within the past year (70.0%), the most common being therapy (78.7%). Full demographic information is presented in Table 1. Participants were recruited from social media platforms (e.g., Facebook) and online listservs focusing on IPV and/or LGBTQ concerns. A secure online data collection tool collected responses. All potential participants were directed to a link to the survey, where they consented to participate in the study. Inclusion criteria were adults ages 18 and over identifying as LGBTQ, and who had (a) experienced IPV in the past year and (b) sought healthcare services related to IPV in the past year. There were 1,344 people who began the survey; 298 (22.2%) met inclusion criteria based on the screener that assessed (a) psychological abuse (14-item psychological maltreatment of women inventory; Tolman, 1999), physical abuse (six-item conflict tactics scale; Straus & Douglas, 2004), and identity abuse in the past year (seven-item identity abuse scale; Woulfe & Goodman, 2018), and (b) service-seeking in the past year. Of these qualifying participants, 239 (80.2%) completed the remainder of the survey. The study received institutional review board (IRB) approval at Boston College.

Measures

Demographics.

Participants reported their sexual orientation, gender identity, race or ethnicity, and ability to pay bills as a proxy of socioeconomic status (see Table 1 for response options and sample characteristics).

Service-seeking.

Participants reported the healthcare service they had sought related to their experience of IPV and its aftermath in the past year. Options included hotline, shelter, transitional living program, support group, advocacy/support services, medical care, mental health counseling, medication management, legal counseling, and an open-ended response option. Participants also reported when they first sought the service that they spent the most time receiving, which was included as a covariate in the model. Response options are in Table 1.

TIC.

The 33-item TIP scales (Goodman et al., 2016) measure perceptions of receiving TIC from a service provider within the past year based on (a) agency and mutual respect (e.g., “staff respect the choices that I make”), (b) information on trauma (e.g., “I have the opportunity to learn how abuse affects responses in the body”), (c) opportunities for connection (e.g., “I have opportunities to help other survivors of abuse in this program”), and (d) emphasis on strengths (e.g., “the strengths I bring to my relationships with my children, my family, or others are recognized in this program”). Response options range from 0 (*not at all true*) to 3 (*very true*). Higher average scale scores for each dimension represent greater perceptions of receiving that dimension of TIC in their service. The internal consistency estimates for the TIP scales were $\alpha = .93$ for agency and mutual respect, $.95$ for information on trauma, $.93$ for opportunities for connection, and $.85$ for emphasis on strengths.

Minority stress-related TIC.

A seven-item scale was created based on a review of the literature (Boroughs, Bedoya, O’Cleirigh, & Safren, 2015) to assess perceptions of receiving TIC sensitive to minority stressors (e.g., “Staff ask about LGBTQ-specific forms of discrimination that I have experienced”; and “Staff respect who I am out to about my gender identity or sexual orientation”). Response options range from 0 (*not at all*) to 3 (*very true*). An exploratory factor analysis determined that the items represented a unidimensional factor (eigenvalue = 4.66; 66.54% variance accounted for; factor loadings = .87, .83, .79, .79, .77, .74, and .67). The internal consistency estimate was $\alpha = .91$. Higher average scale scores represent individuals’ perceptions of greater minority stress-related TIC in their service.

Emotion regulation.

The six-item cognitive reappraisal scale of the Emotion Regulation Questionnaire (Gross & John, 2003) assesses emotion regulation (e.g., “Within the past year, I have controlled my emotions by changing the way I think about the situation I’m in”). Response options range from 1 (*strongly disagree*) to 7 (*strongly agree*). The internal consistency estimate was $\alpha = .88$. Higher average scale scores represent greater emotion regulation.

Social withdrawal.

Feelings of social withdrawal over the past year were measured with the six-item short form of the 11-item De Jong Gierveld Loneliness Scale (e.g., “Over this past year I have missed having people around”; Gierveld & Van Tilburg, 2006). Response options range from 1 (*never experience the feeling*) to 5 (*experience the feeling continuously or almost*

continuously). The internal consistency estimate was $\alpha = .77$. Higher average scale scores represent greater social withdrawal.

Shame.

Feelings of shame over the past year were measured with the 10-item shame subscale of the Personal Feelings Questionnaire–2 (PFQ2-Shame; e.g. “Over this past year I have felt embarrassed”; Harder & Zalma, 1990). Response options range from 0 (*never experience the feeling*) to 3 (*experience the feeling continuously or almost continuously*). The internal consistency estimate was $\alpha = .90$. Higher average scale scores represent greater shame.

Empowerment.

Feelings of empowerment over the past year were measured with the 13-item Measure of Victim Empowerment in Relation to Safety (e.g., “I feel comfortable asking for help to keep safe”; Goodman et al., 2014). Response options range from 1 (*never true*) to 5 (*always true*). The internal consistency estimate was $\alpha = .86$. Higher average scale scores represent greater empowerment.

Mental health.

The nine-item Patient Health Questionnaire (Kroenke, Spitzer, & Williams, 2001) assesses depressive symptoms over the past 2 weeks (e.g., “little interest or pleasure in doing things”). Response options range from 1 (*not at all*) to 4 (*nearly every day*). The internal consistency estimate was $\alpha = .89$. Higher total scale scores represent greater depressive symptoms. The 17-item PTSD Checklist-Civilian Version (PCL-C) is a self-report measure that corresponds to the *Diagnostic and Statistical Manual of Mental Disorders* (4th ed.; *DSM-IV*; American Psychiatric Association, 1994) symptoms of PTSD over the prior 30 days (e.g., “repeated, disturbing dreams of a stressful experience from the past”; Weathers, Litz, Herman, Huska, & Keane, 1993). Response options range from 1 (*not at all*) to 5 (*extremely*). The internal consistency estimate was $\alpha = .89$. Higher total scale scores represent greater PTSD symptoms.

Physical health.

Chronic health conditions over the past year were assessed for nine conditions (e.g., migraines, respiratory problems, sexually transmitted infections [STIs]; Lown & Vega, 2001). Response options are 0 (*no*) and 1 (*yes*). An item assessing STIs was added to the established scale, given research on STIs among LGBTQ IPV survivors (Heintz & Melendez, 2006). A total index score is calculated for which higher total scores represent a greater number of chronic health conditions. The seven-item Somatization Subscale of the Brief Symptom Inventory (BSI; Derogatis, 1993) assesses somatic symptoms within the past week (e.g., faintness or dizziness). Response options range from 0 (*not at all*) to 4 (*extremely*). The internal consistency estimate was $\alpha = .83$. Higher total scale scores represent greater somatic symptoms.

Data Analysis

There was minimal missing data (0.6% to 2.5% across the items), and nearly all items (90%) had no missing data. Little's missing completely at random (MCAR) test was not significant ($\chi^2 = 1,286.55$, $df = 1241$, $p = .18$); therefore, these data were considered to be missing completely at random (Little, Cunningham, Shahar, & Widaman, 2002). Two separate MANOVAs tested for demographic differences (race/ethnicity: White vs. non-White; gender identity: cisgender male and female vs. transgender) on the measures, and bivariate correlations were calculated. Mplus 8.1 was used to test the hypothesized model using full information maximum likelihood (FIML) estimation. The comparative fit index (CFI), Tucker-Lewis Index (TLI), standardized root mean square residual (SRMR), and root-mean-square error of approximation (RMSEA) and its 90% confidence interval assessed the goodness of fit of the model to the data. Values of at least .90 for the CFI and TLI indicate that the model is a good fit to the data (Kline, 1998), while SRMR and RMSEA values of .08 or lower are acceptable (Hu & Bentler, 1999).

The latent TIC factor was composed of the five TIC subscales. Each latent mediator was indicated by three parcels of items from the scale used to assess the respective construct, which can improve reliability and minimize violations of multivariate normality assumptions (Little et al., 2002). Parcels were computed using the item-to-construct balance approach (Little et al., 2002). The latent mental health factor was indicated by the measures of depressive and PTSD symptoms, and the latent physical health factor was indicated by the measures of chronic health conditions and somatic symptoms.

In the measurement model, covariances among factors were free to be estimated, and measurement errors were not allowed to correlate. The observed indicators were constrained to load on their factor. The proposed latent model was then tested where empowerment was allowed to covary with shame, social withdrawal, and emotion regulation, and social withdrawal was allowed to covary with shame, as these associations were significant at the bivariate level. Also based on their significant bivariate correlations, age was included as a control variable predicting emotion regulation, shame, and physical health; SES predicted social withdrawal, shame, mental health, and physical health; and service duration predicted shame and empowerment. Finally, bias-corrected bootstrapping procedures were used to calculate indirect effect estimates with 95% confidence intervals (CI) from 1,000 samples from the original dataset.

Results

The MANOVA was not significant for race/ethnicity, Wilks' $\Lambda = .95$, $F(13, 206.00) = .81$, $p = .65$, $\eta_p^2 = .05$; or gender identity, Wilks' $\Lambda = .86$, $F(26, 414.00) = 1.21$, $p = .22$, $\eta_p^2 = .07$. Bivariate associations between study variables are reported in Table 2. Variables were associated in conceptually consistent directions that ranged from $r = -.50$, $p < .001$, to $r = .72$, $p < .001$, and these patterns are more thoroughly reviewed in the tested path model.

The measurement model was a good fit to the data, CFI = .97; TLI = .96; SRMR = .05; RMSEA = .05, 90% CI = [.039, .061], as was the latent model, CFI = .96; TLI = .95; SRMR

= .06; RMSEA = .05, 90% CI = [.037, .058]. As hypothesized and reported in Table 3, and displayed in Figure 1, greater perceptions of receiving TIC were associated with greater empowerment, greater emotion regulation, and lower social withdrawal; however, it was not associated with shame. Two of the mediators were associated with mental health concerns: social withdrawal and shame. Also, shame was the only mediator that was significantly associated with physical health concerns. Contrary to the hypotheses, the other two mediators—empowerment and emotion regulation—were not associated with either mental health concerns or physical health concerns. Finally, contrary to what was expected, the indirect effects of TIC on mental health through each of the mediators were not significant with the exception of a small indirect effect through lower social withdrawal (Table 3). Likewise, the indirect effect of TIC on physical health through each of the mediators was not significant (Table 3).

Discussion

LGBTQ individuals are at increased risk for IPV exposure and its associated negative health outcomes (Walters et al., 2013). This is among the first studies to examine perceptions of TIC received among LGBTQ IPV survivors. These findings offer mixed support for the potential role of TIC in relation to better health for LGBTQ IPV survivors. TIC did relate significantly to greater empowerment, greater emotion regulation, and lower social withdrawal; however, TIC did not relate to lower shame. Furthermore, TIC was only weakly indirectly related to mental health through lower social withdrawal, and was not indirectly related to physical health through any of the mobilizing factors, even though lower social withdrawal and shame predicted better mental health, and lower shame predicted better physical health.

Associations Between TIC and Health

There were no specific TIC indices that were related to health outcomes at the bivariate level. Given this finding, it was not surprising that TIC was not related to mental or physical health in the overall latent model, with the exception of a small indirect effect on mental health through social withdrawal. Nevertheless, this result extends extant findings that social withdrawal may help to explain the effects of discrimination on mental health for LGBTQ individuals (Mereish & Poteat, 2015). Building on this, TIC as an approach may help to improve mental health by strengthening social connections among LGBTQ IPV survivors.

Overall, TIC has been conceptualized as an approach to help providers better understand the impact of trauma in an effort to avoid triggering survivors and to provide immediate stabilization (Elliott et al., 2005). This conceptualization could explain why TIC was directly associated with most of the more proximal factors that work to mobilize survivors toward safety but was not associated with broader indices of health. These findings suggest that TIC might not in and of itself relate to better health but rather may need to be delivered in the context of evidence-based treatment protocols (e.g., cognitive-behavioral therapy; Beck et al., 2011) and should be further tested using randomized controlled trials.

There are several possibilities for why TIC was not indirectly related to better health, in contrast to prior findings (e.g., Coccozza et al., 2005). Prior work has focused on

heterosexuals with little representation of LGBTQ IPV survivors who experience additional stressors related to their marginalized identity (e.g., discrimination; Balsam & Szymanski, 2005). Also, existing literature has examined TIC with a trauma-specific protocol (e.g., Morrissey et al., 2005). This study considered TIC associations with health irrespective of its delivery within a treatment protocol, which in prior studies could have been the primary contributor to health outcomes, rather than TIC itself. In addition, TIC may need to be conceptualized in a way that more explicitly addresses unique experiences of LGBTQ survivors (e.g., providing information on stigmatizing effect of minority stress).

The Role of TIC in Bolstering Mobilization

Although associations between TIC and mental and physical health generally were not significant through the mobilizing factors, greater perceptions of TIC received were directly related to greater empowerment and emotion regulation, and lower social withdrawal. These findings build on prior research with evidence to suggest that building survivors' strengths could lead them to feel greater empowerment and engage in greater emotion regulation (Harris & Fallot, 2001). The current results extend existing trauma literature to demonstrate that this could apply to LGBTQ IPV survivors, and, furthermore, that TIC is also related to lower social withdrawal. Building on limited research on interventions for LGBTQ individuals (e.g., Pachankis et al., 2015), the findings suggest that a TIC approach may promote various indicators of mobilization that, in turn, may promote health. This finding underscores the need to consider how dimensions of TIC might be infused into clinical interventions tested among LGBTQ IPV survivors.

Pertinent to this study, minority stress-related TIC was associated with greater emotion regulation and empowerment, as well as lower loneliness at the bivariate level. Providers who talk with LGBTQ IPV survivors about discrimination may help them to develop agency to better regulate their emotions (Meyer, 2003). The findings extend this point to suggest that exploring and affirming LGBTQ IPV survivors' gender identity and sexual orientation is related to longer service duration. To this end, it is important for providers who serve LGBTQ IPV survivors in short-term treatment (e.g., a primary care setting) immediately work to assess for minority stress among this population and affirm their identities.

What about shame?—Notably, perceptions of receiving higher levels of TIC did not relate to lower shame. Many LGBTQ IPV survivors experience chronic internalized stigma resulting from exposure to lifelong and current experiences of discrimination (Newcomb & Mustanski, 2010). Consequently, although TIC may bolster LGBTQ IPV survivors' sense of empowerment, emotion regulation, and desire for social connection, it may not sufficiently address pervasive negative core beliefs that contribute to shame related to their LGBTQ identity. Future studies should consider how a trauma-informed approach could be delivered in a way that significantly lowers shame among LGBTQ IPV survivors, particularly because—as is noted below—shame is strongly associated with poorer mental and physical health in this population.

Mobilizing Factors Related to Mental and Physical Health

Consistent with the hypotheses for the proposed model, greater social withdrawal and shame were associated with poorer mental health, and greater shame was related to poorer physical health. At the bivariate level, greater social withdrawal was related to greater depression, PTSD, chronic health conditions, and somatic symptoms, which is consistent with previous research demonstrating that social isolation is a major risk factor for chronic health conditions (House, Landis, & Umberson, 1988). As expected, greater shame was related to greater depression, PTSD, and somatic symptoms. Similarly, greater shame was strongly associated with poorer health in the latent model, which substantiates previous research asserting that shame leads to poorer health (Hartling, Rosen, Walker, & Jordan, 2004). Finally, greater empowerment was associated with lower depression, PTSD, chronic health conditions, and somatic symptoms, findings that align with previous studies documenting that empowerment can improve health outcomes (e.g., Thorne, Paterson, & Russell, 2003).

Limitations and Strengths

While these findings advance research on LGBTQ IPV survivors' reported experience of TIC, there are some limitations to note. The data were nonexperimental; thus, causality cannot be determined. Longitudinal research would provide stronger evidence for the indirect pathways and directionality of associations. Also, the final sample size was much smaller than the initial sample due to the number of individuals who did not meet all inclusion criteria. In particular, only a small percentage of LGBTQ IPV survivors had sought any kind of healthcare service within the past year (38.8%), even with a wide range of possible services, making them ineligible for the study. Given that LGBTQ IPV survivors are already a highly marginalized and difficult-to-reach population, this reflects an ongoing challenge to address in future research. While we utilized nonprobability sampling methods in the effort to target a difficult-to-reach population, our reliance on LGBTQ- and IPV-specific listservs may have yielded a sample with unique attributes, posing challenges to the generalizability of the associations found for this sample. For instance, this sample may have reported less social isolation than the general population of LGBTQ IPV survivors by the very fact that participants were connected to online listservs. Future studies should aim to use representative sampling approaches when studying this population. In addition, the sample mostly identified as White; thus, the generalizability of findings to racial and ethnic minority LGBTQ survivors may be limited. Although a strength of the study was in assessing survivors' perceptions of receiving TIC services from a broad range of services related to IPV exposure, it is possible that this variability also might have diluted some of the findings. The effects implied in the current model may apply to TIC received in the context of some services more than others. Future research might consider TIC experiences with services that directly aim to rehabilitate survivors (e.g., mental health counseling) separately from services that may indirectly provide support for IPV exposure (e.g., legal counseling).

There are also some limitations to the measurement of some constructs. Some items from established scales used dichotomous response options (e.g., chronic health conditions), which could have limited the ability to detect potentially important variance. Also, results are based on self-report and future studies could improve upon this to examine data from

multiple sources (e.g., providers' reports of their infusion of TIC into their services). In addition, participants reported their perceptions of TIC related to the service they sought most in the past year; however, this service might not have been the most helpful in terms of improving overall health. While inclusion criteria for the study were LGBTQ participants who had experienced some form of IPV during the past year and who sought healthcare services related to IPV during the past year, this study did not account for the time that may have potentially lapsed between IPV exposure and services that were received.

There are also several strengths of this study. This study tested a novel model that bridged the trauma, TIC, and minority stress literature bases among LGBTQ IPV survivors to better understand the processes by which perceptions of receiving TIC could promote better mental and physical health through various mobilizing factors. This study addressed limitations of prior research by assessing perceptions of TIC received among LGBTQ IPV survivors, a substantially understudied population in the IPV literature, and examined associations of TIC with mobilizing factors as well as mental and physical health. The more comprehensive model from this study illuminated several complex and nuanced pathways that could inform the development of better prevention and intervention efforts for LGBTQ IPV survivors.

Implications for Research and Practice

This study provides several directions for future research. Studies should further examine this model for specific types of service providers and agencies. For example, it could be that TIC received from medical providers has a stronger association with physical health than TIC received from support groups or hotlines. Future research could also examine TIC in conjunction with evidence-based interventions to better understand this combined effect on improving health. Future studies should also examine the direct effect of TIC on mental and physical health using randomized controlled trials. Moreover, given the nonsignificant association between TIC and shame in the model, future research should consider how TIC approaches could be tailored to ensure that they have a substantive effect on lowering shame—especially because shame was highly associated with mental and physical health. Finally, future research should consider supplementary TIC dimensions that were not captured in this study (e.g., encouraging survivors to seek support from the LGBTQ community) in an effort to build its overall effect on health for this population.

Results from this study suggest ways that providers could work to improve health among LGBTQ IPV survivors. By incorporating a TIC framework into their service delivery, providers may help survivors to increase their resilience against negative experiences as well as help them to mobilize themselves toward safety and recovery. It is critical that service providers work to increase LGBTQ IPV survivors' engagement with affirming community and support networks. To more effectively serve LGBTQ IPV survivors who contend with learned negative self-evaluations as a result of discrimination and IPV, TIC may need to be delivered in the context of evidence-based interventions adapted for LGBTQ populations. Taken together, researchers and practitioners need to uncover services and resources complementary to TIC that could ameliorate the effect of IPV on LGBTQ survivors' health.

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References

- Amaro H, Chernoff M, Brown V, Arévalo S, & Gatz M (2007). Does integrated trauma-informed substance abuse treatment increase treatment retention? *Journal of Community Psychology*, 35, 845–862.
- American Psychiatric Association. (1994). *Diagnostic and statistical manual of mental disorders* (4th ed.). Washington, DC: Author.
- Baker CN, Brown SM, Wilcox PD, Overstreet S, & Arora P (2016). Development and psychometric evaluation of the Attitudes Related to Trauma-Informed Care (ARTIC) Scale. *School Mental Health*, 8, 61–76.
- Balsam KF, & Szymanski DM (2005). Relationship quality and domestic violence in women's same-sex relationships: The role of minority stress. *Psychology of Women Quarterly*, 29, 258–269.
- Beck JG, McNiff J, Clapp JD, Olsen SA, Avery ML, & Hagewood JH (2011). Exploring negative emotion in women experiencing intimate partner violence: Shame, guilt, and PTSD. *Behavior Therapy*, 52, 740–750.
- Beckett P, Holmes D, Phipps M, Patton D, & Molloy L (2017). Trauma-informed care and practice: Practice improvement strategies in an inpatient mental health ward. *Journal of Psychosocial Nursing and Mental Health Services*, 55(10), 34–38.
- Bloom SL, Bennington-Davis M, Farragher B, McCorkle D, Nice-Martini K, & Wellbank K (2003). Multiple opportunities for creating sanctuary. *Psychiatric Quarterly*, 74, 173–190.
- Boroughs MS, Bedoya CA, O'Cleirigh C, & Safren SA (2015). Toward defining, measuring, and evaluating LGBT cultural competence for psychologists. *Clinical Psychology: Science and Practice*, 22, 151–171. [PubMed: 26279609]

- Breiding MJ, Black MC, & Ryan GW (2008). Prevalence and risk factors of intimate partner violence in eighteen U.S. states/territories, 2005. *American Journal of Preventive Medicine*, 34, 112–118. [PubMed: 18201640]
- Brown T, & Herman J (2015). *Intimate partner violence and sexual abuse among LGBTpeople*. Los Angeles, CA: The Williams Institute. Retrieved from <http://williamsinstitute.law.ucla.edu/wp-content/uploads/Intimate-Partner-Violence-and-Sexual-Abuse-among-LGBT-People.pdf>
- Calton JM, Cattaneo LB, & Gebhard KT (2016). Barriers to help seeking for lesbian, gay, bisexual, transgender, and queer survivors of intimate partner violence. *Trauma, Violence, & Abuse*, 17, 585–600.
- Cocozza JJ, Jackson EW, Hennigan K, Morrissey JP, Reed BG, Fallot R, & Banks S (2005). Outcomes for women with co-occurring disorders and trauma: Program-level effects. *Journal of Substance Abuse Treatment*, 28, 109–119. [PubMed: 15780540]
- Dempsey D (2010). Conceiving and negotiating reproductive relationships: Lesbians and gay men forming families with children. *Sociology*, 44, 1145–1162.
- Derogatis LR (1993). *BSI, Brief Symptom Inventory: Administration, scoring & procedures manual*. Minneapolis, MN: National Computer Systems.
- Elliott DE, Bjelajac P, Fallot RD, Markoff LS, & Reed BG (2005). Trauma-informed or trauma-denied: Principles and implementation of trauma-informed services for women. *Journal of Community Psychology*, 33, 461–477.
- Gierveld JDJ, & Van Tilburg T (2006). A 6-item scale for overall, emotional, and social loneliness confirmatory tests on survey data. *Research on Aging*, 28, 582–598.
- Goodman LA, Cattaneo LB, Thomas K, Woulfe J, Chong SK, & Smyth KF (2014). Advancing domestic violence program evaluation: Development and validation of the Measure of Victim Empowerment Related to Safety (MOVERS). *Psychology of Violence*, 5, 355–366.
- Goodman LA, Sullivan CM, Serrata J, Perilla J, Wilson JM, Fauci JE, & DiGiovanni CD (2016). Development and validation of the trauma informed practice scales. *Journal of Community Psychology*, 44, 747–764.
- Gross JJ, & John OP (2003). Individual differences in two emotion regulation processes: Implications for affect, relationships, and well-being. *Journal of Personality and Social Psychology*, 85, 348–362. [PubMed: 12916575]
- Harder DH, & Zalma A (1990). Two promising shame and guilt scales: A construct validity comparison. *Journal of Personality Assessment*, 55, 729–745. [PubMed: 2280336]
- Harris ME, & Fallot RD (2001). *Using trauma theory to design service systems*. San Francisco, CA: Jossey-Bass.
- Hartling LM, Rosen WB, Walker M, & Jordan JV (2004). Shame and humiliation: From isolation to relational transformation. In Jordan JV, Walker M, & Hartling LM (Eds.), *The complexity of connection* (pp. 103–128). New York, NY: Guilford Press.
- Hatzenbuehler ML (2009). How does minority stigma “get under the skin”? A psychological mediation framework. *Psychological Bulletin*, 135, 707–730. [PubMed: 19702379]
- Heintz AJ, & Melendez RM (2006). Intimate partner violence and HIV/STD risk among lesbian, gay, bisexual, and transgender individuals. *Journal of Interpersonal Violence*, 21, 193–208. [PubMed: 16368761]
- Heller L, & LaPierre A (2012). *Healing developmental trauma: How early trauma affects self-regulation, self-image, and the capacity for relationship*. Berkeley, CA: North Atlantic Books.
- Herman JL (1992). Complex PTSD: A syndrome in survivors of prolonged and repeated trauma. *Journal of Traumatic Stress*, 5, 377–391.
- Hill NL (2009). Affirmative practice and alternative sexual orientations: Helping clients navigate the coming out process. *Clinical Social Work Journal*, 37, 346–356.
- Hopper EK, Bassuk EL, & Olivet J (2010). Shelter from the storm: Trauma-informed care in homelessness services settings. *The Open Health Services and Policy Journal*, 3, 80–100.
- House JS, Landis KR, & Umberson D (1988). Social relationships and health. *Science*, 241, 540–545. [PubMed: 3399889]
- Hu LT, & Bentler PM (1999). Cutoff criteria for fit indexes in covariance structure analysis: Conventional criteria versus new alternatives. *Structural Equation Modeling*, 6(1), 1–55.

- Johnson DM, & Zlotnick C (2006). A cognitive-behavioral treatment for battered women with PTSD in shelters: Findings from a pilot study. *Journal of Traumatic Stress*, 19, 559–564. [PubMed: 16929512]
- Kline RB (1998). Software review: Software programs for structural equation modeling: Amos, EQS, and LISREL. *Journal of Psychoeducational Assessment*, 16, 343–364.
- Kroenke K, Spitzer RL, & Williams JB (2001). The PHQ-9. *Journal of General Internal Medicine*, 16, 606–613. [PubMed: 11556941]
- Langenderfer-Magruder L, Whitfield DL, Walls NE, Kattari SK, & Ramos D (2016). Experiences of intimate partner violence and subsequent police reporting among lesbian, gay, bisexual, transgender, and queer adults in Colorado: Comparing rates of cisgender and transgender victimization. *Journal of Interpersonal Violence*, 31, 855–871. [PubMed: 25392392]
- Lehavot K, & Simoni JM (2011). The impact of minority stress on mental health and substance use among sexual minority women. *Journal of Consulting and Clinical Psychology*, 79, 159–170. [PubMed: 21341888]
- Linehan MM, Korslund KE, Harned MS, Gallop RJ, Lungu A, Neacsiu AD, Murray-Gregory, AM (2015). Dialectical behavior therapy for high suicide risk in individuals with borderline personality disorder: A randomized clinical trial and component analysis. *JAMA Psychiatry*, 72, 475–482. [PubMed: 25806661]
- Little TL, Cunningham WA, Shahar G, & Widaman KF (2002). To parcel or not to parcel: Exploring the question, weighing the merits. *Structural Equation Modeling*, 9, 151–173.
- Lown EA, & Vega WA (2001). Intimate partner violence and health: Self-assessed health, chronic health, and somatic symptoms among Mexican American women. *Psychosomatic Medicine*, 63, 352–360. [PubMed: 11382262]
- Mereish EH, & Poteat VP (2015). A relational model of sexual minority mental and physical health: The negative effects of shame on relationships, loneliness, and health. *Journal of Counseling Psychology*, 62, 425–437. [PubMed: 26010289]
- Meyer IH (2003). Prejudice, social stress, and mental health in lesbian, gay, and bisexual populations: Conceptual issues and research evidence. *Psychological Bulletin*, 129, 674–697. [PubMed: 12956539]
- Miller CM, Goodman LA, Thomas KA, Peterson A, Scheer JR, Woulfe JM, & Warshaw C (2016). Trauma-informed approaches for LGBTQ* survivors of intimate partner violence: A review of literature and a set of practice observations (Produced by the GLBTQ domestic violence project). Retrieved from <https://pdfs.semanticscholar.org/ee3e/f17e241ad08157a68105ed13d919cda29c29.pdf>
- Mohr JJ, & Fassinger RE (2006). Sexual orientation identity and romantic relationship quality in same-sex couples. *Personality and Social Psychology Bulletin*, 32, 1085–1099. [PubMed: 16861312]
- Morrissey JP, Jackson EW, Ellis AR, Amaro H, Brown VB, & Najavits LM (2005). Twelve-month outcomes of trauma-informed interventions for women with co-occurring disorders. *Psychiatric Services*, 56, 1213–1222. [PubMed: 16215186]
- Newcomb ME, & Mustanski B (2010). Internalized homophobia and internalizing mental health problems: A meta-analytic review. *Clinical Psychology Review*, 30, 1019–1029. [PubMed: 20708315]
- Otis MD, Rostosky SS, Riggle ED, & Hamrin R (2006). Stress and relationship quality in same-sex couples. *Journal of Social and Personal Relationships*, 23, 81–99.
- Pachankis JE (2015). A transdiagnostic minority stress treatment approach for gay and bisexual men's syndemic health conditions. *Archives of Sexual Behavior*, 44, 1843–1860. [PubMed: 26123065]
- Pachankis JE, Rendina HJ, Restar A, Ventuneac A, Grov C, & Parsons JT (2015). A minority stress—Emotion regulation model of sexual compulsivity among highly sexually active gay and bisexual men. *Health Psychology*, 34, 829–840. [PubMed: 25528179]
- Risser JMH, Shelton A, McCurdy S, Atkinson J, Padgett P, Useche B, Williams M (2005). Sex, drugs, violence, and HIV status among male-to-female transgender persons in Houston, Texas. *International Journal of Transgenderism*, 8(2-3), 67–74.

- Schore AN (2013). Relational trauma, brain development, and dissociation. In Ford JD & Courtois CA (Eds.), *Treating complex traumatic stress disorders in children and adolescents, scientific foundations and therapeutic models* (pp. 3–23). New York, NY: Guilford Press.
- Straus MA, & Douglas EM (2004). A short form of the revised conflict tactics scales, and typologies for severity and mutuality. *Violence and Victims*, 19, 507–520. [PubMed: 15844722]
- Thorne S, Paterson B, & Russell C (2003). The structure of everyday self-care decision making in chronic illness. *Qualitative Health Research*, 13, 1337–1352. [PubMed: 14658350]
- Tolman RM (1999). The validation of the Psychological Maltreatment of Women Inventory. *Violence and Victims*, 14, 25–37. [PubMed: 10397624]
- Walters ML, Chen J, & Breiding MJ (2013). *The National Intimate Partner and Sexual Violence Survey (NISVS): 2010 findings on victimization by sexual orientation*. Atlanta, GA: National Center for Injury Prevention and Control, Centers for Disease Control and Prevention.
- Warshaw C, Lyon E, Bland PJ, Phillips H, & Hooper M (2014). *Mental health and substance use coercion surveys: Report from the National Center On Domestic Violence, Trauma & Mental Health and the National Domestic Violence Hotline*. Retrieved from http://www.nationalcenterdvtraumamh.org/wp-content/uploads/2014/10/NCDVTMH_NDVH_MHSUCoercionSurveyReport_2014-2.pdf
- Weathers FW, Litz BT, Herman DS, Huska JA, & Keane TM (1993, October). The PTSD Checklist (PCL): Reliability, validity, and diagnostic utility. Annual convention of the International Society for Traumatic Stress Studies, San Antonio, TX.
- Woulfe JM, & Goodman LA (2018). Identity abuse as a tactic of violence in LGBTQ communities: Initial validation of the identity abuse measure. *Journal of Interpersonal Violence*. 10.1177/0886260518760018

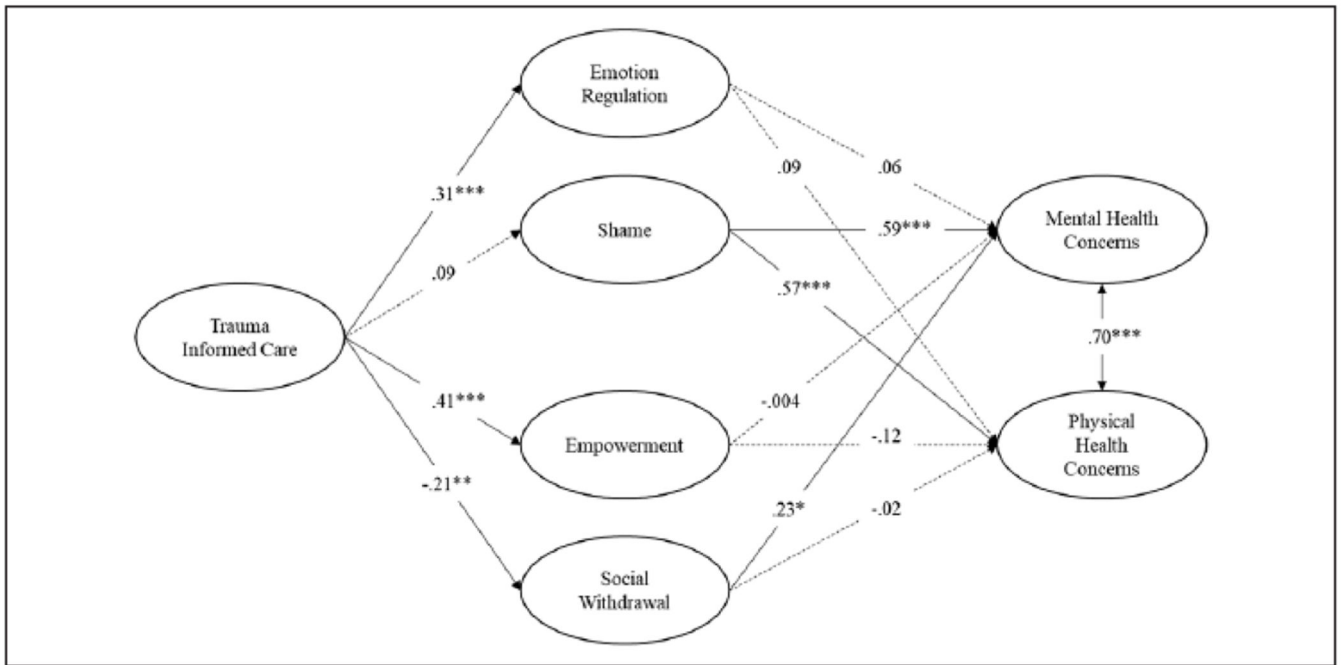


Figure 1.

Model of associations between trauma-informed care, mediators, and mental and physical health concerns.

Note. Values are standardized coefficient estimates. Dashed lines represent nonsignificant paths. The model controls for age, SES, and service duration and includes covariances among mediators that are not displayed but are reported in Table 3. SES = socioeconomic status.

* $p < .05$. ** $p < .01$. *** $p < .001$.

Table 1.

Frequencies of Demographic Variables.

Variable	Percent
Gender Identity	
Cisgender woman	43.9
Cisgender man	13.4
Transman	7.1
Transwoman	5.9
Nonbinary	24.70
Other	5.0
Sexual Orientation Identity	
Lesbian	13.8
Gay	18.4
Bisexual	22.2
Pansexual	9.6
Queer	25.5
Asexual	5.9
Other	4.6
Race/Ethnicity	
African American/Black	2.7
Asian/Asian American	5.8
Hispanic/Latino	4.9
Native American/Alaska Native	0.9
Middle Eastern	0.9
Biracial or Multiracial	17.3
White	66.7
Other	0.9
Socioeconomic Status	
I do not worry about paying for things I want and need	8.9
I can easily pay my bills but need to be careful	22.8
I can pay my regular bills, but a bill that was bigger than usual would cause hardship	41.5
I have trouble paying my regular bills	19.6
I simply can't pay my bills	7.1
How long ago services were sought	
Less than a month ago	5.0
Between 1 month and 6 months ago	17.2
Between 6 months and 1 year ago	24.8
More than 1 year ago	40.8
More than 5 years ago	12.2

Table 2.

Correlations Among the Measures.

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1. Agency	—															
2. Info	.62***	—														
3. Conn	.16*	.36***	—													
4. Strength	.72***	.66***	.26***	—												
5. Minority	.65***	.66***	.29***	.67***	—											
6. Emo	.24***	.26***	.03	.25***	.28***	—										
7. Lonely	-.24***	-.11	-.06	-.18**	-.18**	-.13*	—									
8. Shame	.04	.07	.13	.04	.04	-.02	.47***	—								
9. Power	.42***	.33***	.14*	.28***	.32***	.31***	-.50***	-.25***	—							
10. Dep.	-.08	.02	.05	-.04	-.04	.01	.46***	.60***	-.22***	—						
11. PTSD	-.08	.12	.10	.01	.05	.05	.43***	.63***	-.23***	.76***	—					
12. Chron.	-.07	.04	-.06	-.08	-.08	.10	.21***	.13	-.15*	-.26***	-.25***	—				
13. Somat	-.07	.05	.11	-.04	.05	.05	.28***	.49***	-.19**	.60***	.64***	.37***	—			
14. Age	-.02	-.03	-.02	-.03	-.04	.14*	.02	-.23***	-.01	-.09	-.10	.29***	.02	—		
15. SES	-.05	-.11	-.06	-.12	-.12	-.02	.19**	.25***	-.12	.29***	.28***	.11	-.23***	-.02	—	
16. Service	.05	.01	-.08	.10	.14*	.10	-.09	-.14*	.13*	-.13	-.12	.07	-.05	.20**	-.05	—
<i>M(SD)</i>	2.50 (0.65)	1.98 (0.10)	0.85 (1.06)	2.15 (0.90)	2.00 (0.88)	4.85 (1.18)	2.61 (0.64)	1.41 (0.66)	3.41 (0.72)	21.58 (6.86)	47.31 (16.08)	1.64 (1.46)	7.15 (5.71)	27.66 (9.27)	2.93 (1.03)	3.38 (1.06)

Note. Agency = environment of agency and mutual respect (TIP subscale); Info = access to information to trauma (TIP subscale); Conn = opportunities for connection (TIP subscale); Strength = emphasis on strengths (TIP subscale); Minority = Minority stress; Emo = level of emotion regulation; Lonely = degree of social withdrawal; Power = level of empowerment; Dep = depression; PTSD = posttraumatic stress disorder; Chron = chronic health conditions; Somat = somatic symptoms; SES = socioeconomic status; Service = how long ago services were sought; TIP = Trauma-Informed Practice Scales.

* $p < .05$.

.100 > d

.10 > d
**

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Table 3.

Direct and Indirect Effect Estimates and Covariances in Trauma Informed Care Model.

Specific Path or Covariance	Standardized Estimate (95% CI)	SE	p value
TIC to:			
Emotion regulation	.31	.08	<.001
Shame	.09	.07	.215
Empowerment	.41	.07	<.001
Social withdrawal	-.21	.08	.007
Emotion regulation to:			
Mental health concerns	.06	.06	.340
Physical health concerns	.09	.09	.302
Shame to:			
Mental health concerns	.59	.06	<.001
Physical health concerns	.57	.10	<.001
Empowerment to:			
Mental health concerns	-.004	.09	.966
Physical health concerns	-.12	.10	.224
Social withdrawal to:			
Mental health concerns	.23	.09	.017
Physical health concerns	-.02	.12	.869
Covariance between:			
Empowerment, shame	-.32	.08	<.001
Empowerment, social withdrawal	-.53	.07	<.001
Empowerment, emotion regulation	.20	.07	.003
Shame, social withdrawal	.55	.06	<.001
Mental health, physical health	.70	.13	<.001
TIC to mental health indirect through:			
Emotion regulation	.02 [-.02, .06]	.02	
Shame	.05 [-.03, .14]	.04	
Empowerment	-.002 [-.07, .07]	.04	
Social withdrawal	-.05 [-.11, -.01]	.03	
TIC to physical health indirect through:			
Emotion regulation	.03 [-.02, .09]	.03	
Shame	.05 [-.03, .13]	.04	
Empowerment	-.05 [-.14, .03]	.04	
Social withdrawal	.004 [-.05, .06]	.03	
Covariate paths:			
Age to emotion regulation	.15	.07	.038
Age to shame	-.23	.06	<.001
Age to physical health	.18	.08	.035
Low SES to social withdrawal	.14	.06	.029
Low SES to shame	.23	.07	<.001

Specific Path or Covariance	Standardized Estimate (95% CI)	SE	<i>p</i> value
Low SES to mental health concerns	.12	.06	.040
Low SES to physical health concerns	.10	.07	.178
Service duration to shame	-.06	.06	.361
Service duration to empowerment	.04	.06	.477

Note. Indirect effect estimates were calculated using bias-corrected bootstrapping procedures from 1,000 samples from the original dataset, with 95% CI reported in brackets. CI = confidence intervals; TIC = trauma informed care; SES = socioeconomic status.