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THE ROLE OF EMOTIONAL INTELLIGENCE AND EMOTION REGULATION
IN PROMOTING SOCIAL SUPPORT AMONG YOUNG ADULTS VICTIMIZED
DURING CHILDHOOD

by

Sarah Elaine Barnes

A Thesis

Submitted in Partial Fulfillment of the

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Dedication

To my Mom, Dad, brother, and Daniel, who make up the world's greatest cheering

section. I'm a lucky girl.

Acknowledgments

This project would not have been possible without the enduring and unfailing support of my family and friends. Mom and Dad, thank you for being my biggest cheerleaders with an endless supply of encouragement and lots and lots of love. I couldn't have done this without you both. To my little brother, Daniel, thank you for always giving me something to laugh about, and reminding me not to take life too seriously. Also, a big 'thank you' to my wonderful cohort at St. Jude Children's Research Hospital, who never failed to lend an ear or offer a pep talk. I could not have asked for a better group of women to work (and play!) with. I would like to thank my committee for their guidance and insightful and encouraging feedback. To the REACH Lab, and my thesis advisor, Katie, thank you for challenging and pushing me throughout this process. And last, but certainly not least, a million thank you's to Daniel, for being a sounding board, a best friend, and a continued voice of encouragement and comfort. I love you.

Abstract

Barnes, Sarah Elaine. M.S. The University of Memphis. August, 2015. The Role of Emotional Intelligence and Emotion Regulation in Promoting Social Support among Young Adults Victimized during Childhood. Major Professor: Kathryn H. Howell, Ph.D

Social support has been linked to fewer difficulties following childhood victimization. However, few studies have investigated how support might vary among individuals with victimization histories. This study examined the relation between childhood poly-victimization and social support from family and friends in emerging adulthood. Variations in this relation across gender were examined, in addition to the potential mediating roles of emotional intelligence and emotion dysregulation. Results revealed no significant gender differences, and that more childhood poly-victimization was significantly related to lower perceptions of support from family and friends. Emotion dysregulation, but not emotional intelligence, was positively related to childhood poly-victimization. Additionally, emotion dysregulation partially mediated the relation between childhood poly-victimization and support from family, suggesting that the ability to regulate one's emotions may be influential in perceptions of family support. Results underscore the enduring consequences of childhood poly-victimization, and offer directions for intervention efforts targeted at emerging adults with poly-victimization histories.

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The Role of Emotional Intelligence and Emotion Regulation in Promoting Social

Support among Young Adults Victimized during Childhood

The victimization of children is a pervasive public health burden that has

received considerable attention in recent decades (Finkelhor & Dziuba-Leatherman,

1994; Finkelhor, Ormrod, Turner, & Hamby, 2005; Widom, 1989). Comprehensive

studies on the prevalence of childhood victimization have shown that many youth

experience multiple forms of adversity, referred to as poly-victimization (Finkelhor,

Ormrod, & Turner, 2007; Finkelhor, Ormrod, & Turner, 2009; Turner, Finkelhor, &

Ormrod, 2010). Further work suggests that these multiply victimized children are at

risk for experiencing a number of difficulties, both in childhood and persisting into

adulthood (Chan, 2013; Finkelhor et al., 2007; Kim & Cicchetti, 2010; Maughan &

Cicchetti, 2002). Children display variable functioning following adversity and some

studies have uncovered factors, such as the perception of social support, which may

protect against maladjustment. While social support has been consistently linked to

fewer difficulties following victimization, what is less understood is how social

support might vary among individuals with victimization histories. Thus, the purpose

of this study was to examine factors that may promote social support in emerging

adults who were poly-victimized as children.

Childhood victimization can take many forms and includes both direct (e.g.,

physical abuse, sexual abuse) and indirect (e.g., exposure to intimate partner violence,

witnessing community violence) experiences. Large, national studies have uncovered

startlingly high prevalence rates of children's victimization (e.g., Finkelhor, Hamby,

Ormrod, & Turner, 2005; Finkelhor, Turner, Ormrod, & Hamby, 2009; Finkelhor,

Turner, Shattuck, & Hamby, 2013). For instance, findings from the 2011 National

Survey of Children's Exposure to Violence II (NatSCEV II), a cross-sectional

telephone survey of children, youth and their caregivers ($N = 4{,}503$), reported that 41.2% of respondents aged 1 month (parent report) to 17 years had experienced a physical assault in the last year and 5.6% had been sexually victimized (Finkelhor et al., 2013). Maltreatment by a caregiver was reported by 13.8% of the sample while nearly a quarter (24.1%) reported property victimization and 22.4% of the sample reported witnessing violence in the family or community in the last year. Notably, authors compared the rates of the NatSCEV II with rates from 2008 when the first NatSCEV was conducted and found that victimization experiences were largely stable over that timeframe (Finkelhor et al., 2013; Finkelhor, Turner et al., 2009).

In addition, studies have now begun to examine the co-occurrence of multiple forms of victimization, referred to as poly-victimization, as the literature has consistently documented that children frequently experience multiple types of adversity (Finkelhor et al., 2007; Finkelhor, Ormrod et al., 2009; Turner et al., 2010). Shifting the focus to the impact of poly-victimization, rather than single episodes of violence, is critical for several reasons. When violent events are studied in singularity, researchers may fail to identify a truly comprehensive understanding of how and why victimization is transpiring, which limits the effectiveness of interventions. By adopting a poly-victimization framework, researchers and clinicians alike move toward a more sophisticated model of risk and protective factors for both victimization and perpetration patterns. Additionally, studying poly-victimization allows for a more developmentally sensitive understanding of the roots of violence, as well as its consequences. All of these factors will aid in more efficient, better coordinated services for victims of violence, as well as more comprehensive prevention and intervention efforts. Thus, there are huge implications

for adopting a poly-victimization framework which have the potential to radically shift how we conceptualize and serve children who have been victimized.

As would be expected, poly-victimized children are at risk for a number of difficulties during the childhood years (Chan, 2013; Finkelhor et al., 2007; Kim & Cicchetti, 2010; Maughan & Cicchetti, 2002). Relative to children without histories of poly-victimization, increased trauma symptomatology (Finkelhor et al., 2007), difficulties with emotion regulation (Kim & Cicchetti, 2010), increased externalizing and internalizing symptoms (Maughan & Cicchetti, 2002), and poor mental health outcomes in the form of greater depressive symptoms, self-harm, suicidal ideation, and decreased health-related quality of life (Chan, 2013) have all been observed in poly-victimized children. Furthermore, these difficulties are often enduring and carry over into adulthood. Among adults, poly-victimization during childhood has been associated with increased substance use (Elliott, Alexander, Pierce, Aspelmeier, & Richmond, 2009; Marcenko, Kemp, & Larson, 2000;), mental health difficulties (Elliott et al., 2009; Paolucci, Genuis, & Violato, 2001; Springer, Sheridan, Kuo, & Carnes, 2007), low academic achievement (Elliott et al., 2009; Paolucci et al., 2001), poor physical health (Elliott et al., 2009; Springer et al., 2007), and social struggles (Elliott et al., 2009; Paolucci et al., 2001).

As highlighted above, a substantial amount of literature has documented the negative outcomes associated with childhood poly-victimization. Recent studies have also begun to investigate factors that may reduce the risk of these negative outcomes (Afifi & MacMillan, 2011). Social support, which can be defined as assistance provided to distressed individuals who are coping with stressful events (Thoits, 1986), has received considerable research attention as a potential protective factor following childhood victimization. Through this work, the immense influence of support on

adaptive and maladaptive functioning has been consistently identified. For example, among individuals with histories of childhood victimization, perceived social support has been positively associated with reductions in anger (Hobfoll et al., 2002), anxiety (Sperry & Widom, 2013), posttraumatic stress symptoms (Evans, Steel, DiLillo, 2013; Evans, Steel, Watkins, DiLillo, 2014; Wilson & Scarpa, 2013), and depressive symptoms (Banyard, 1999; Evans et al., 2013; Evans et al., 2014; Hobfoll et al., 2002; Powers, Ressler, & Brady, 2009; Sperry & Widom, 2013).

Although the impact of social support on functioning is clear, a strikingly small number of studies have examined social support as an outcome, which marks a significant gap in our current understanding. This is particularly important as past research has found that individuals who experience childhood victimization report significantly less social support, including the perception of *lower support from family and friends* (Pepin & Banyard, 2006; Sperry & Widom, 2013; Stevens et al., 2013; Weber & Cummings, 2003), *reduced quality of support* (McCarthy & Taylor, 1999), and *inadequate use of available support* (Mullen, Martin, Anderson, Romans, & Herbison, 1996). The social support deterioration model (Barrera, 1986) posits that stress brought on by difficult events (such as childhood poly-victimization) sabotages the perception of available and helpful support, which in turn leads to psychopathology and maladjustment. Thus, according to this theoretical model, childhood poly-victimization could potentially interfere with children's perception of available social support. This skewed perception of support may strengthen over time, becoming ingrained in children's understanding of relationships as they reach the emerging adulthood years. This decreased perception of support is highly problematic given that social support is one of the most consistently documented factors associated with reduced risk for later psychological and behavioral difficulties.

Therefore, intervening and targeting these negatively skewed perceptions of social support may be especially critical in reducing the risk for maladjustment following childhood poly-victimization.

Some researchers have argued that studies of risk and resilience are most useful when they can help "change the odds" for individuals (Muller, 1997). Therefore, it is critical that attention be paid to factors that might promote perceptions of social support, particularly among a population that is more likely to experience difficulties, such as adults with childhood poly-victimization histories. By shifting the focus to social support as an outcome, rather than continuing to examine it as a mechanism of psychological functioning, the current study will help to uncover the processes by which this impactful variable operates. This furthers not only our knowledge of developmental psychopathology, but also lends a greater understanding to the theoretical and empirical contexts on which to base interventions.

Social Support: Relevant Qualities

Given that social support is a broad term representing a multidimensional construct, there are a number of factors that might work to enhance the perceived quality of social support. One such factor is the makeup of the supportive network itself. Recent work has investigated whether there are differences in outcomes based on who comprises the support network (i.e., family or friends). For instance, one study found that perceived social support from both family and friends was negatively associated with posttraumatic stress symptoms among adults who were physically abused as children (Wilson & Scarpa, 2013). Another study found that adolescents with a history of sexual victimization reported less perceived support from family than friends (Bal, Crombez, Van Oost, & Debourdeaudhuij, 2003). This research

indicates that the individuals who make up the support network may hold influence beyond the quality or content of the support itself.

Additionally, gender appears to be influential in enhancing perceptions of social support, though the literature in this area has been mixed. Some research suggests that, when faced with adversity, women are more likely to seek support, perceive higher levels of support, and experience more psychological benefit from support than men (Cutrona, 1996; Nazroo, Edwards, & Brown, 1998; Nolen-Hoeksema, 1990; Walen & Lachman, 2000). However, results from a similar study revealed no differences in perceptions of social support between men and women (Li, Albert, & Dwelle, 2014).

Interestingly, numerous studies have found that perceptions of social support from family and friends vary across gender. For instance, Dwyer and Cummings (2001) noted that women perceived higher levels of support from their friends than men. Similarly, another study found that between men and women with poly-victimization histories, perceived social support from friends was related to lower levels of depression in adult women, even after controlling for four types of childhood maltreatment (Powers et al., 2009). No such effect was observed for men, or with perceived support from family. Finally, findings from Evan and colleagues (2013) revealed that perceived social support from both family *and* friends predicted lower trauma symptoms among men, whereas among women, only perceived social support from friends predicted decreased trauma symptoms. Taken together, these studies suggest that perceptions of social support may be influenced by the composition of the support network itself (e.g., friends or family), an individual's gender, or a combination of both.

Finally, an individual's developmental status may play a pivotal role in the perceived quality of social support. One developmental period that may be particularly vulnerable to experiencing a lack of social support is emerging adulthood, which refers to the unique transitional period from adolescence into adulthood (Arnett, 2000). This time is marked by rapidly changing social opportunities and challenges, such as achieving autonomy from parents, as well as burgeoning stability and intimacy in social and romantic relationships (Arnett, 2000; Reis, Lin, Bennett, & Nezlek, 1993). Although emerging adulthood brings a number of favorable changes, this period can also be marked by novel challenges, such as increased stress related to school and finances (Edwards, Hershberger, Russell, & Markert, 2001; Nonis, Hudson, Logan, & Ford, 1998). Further, emerging adults are often away from home for the first time in their lives, and therefore apart from primary support networks. Studies suggest that supportive relationships may aid in the successful transition to emerging adulthood (Settersten & Ray, 2010; Shulman, Kalnitzki, & Shahar, 2009), highlighting that social support is especially important for well-being during this time period. If adverse life experiences, such as childhood poly-victimization, are considered in conjunction with current stressors, emerging adulthood may be an especially vulnerable developmental period.

In summary, perceptions of social support are likely impacted by a number of factors, including the composition of the supportive network, gender, and developmental period. There is literature to suggest that these components are relevant and influential in shaping the quality of perceived support. That being said, little research has focused specifically on factors that might promote perceptions of social support.

Potential Mechanisms of Social Support: Emotional Intelligence and Emotion Regulation

In considering factors that may promote social support, Sarason, Sarason, and Shearin (1986) suggested that social support is impacted by variables beyond simply the quantity and quality of relationship transactions. For this reason, it is useful to conceptualize social support as an individual difference variable, as well as an environmental provision (Sarason et al., 1986). Thus, two constructs that may be particularly influential in bolstering social support are emotional intelligence and emotion dysregulation.

Emotional intelligence can be defined as "the ability to monitor one's own and other's feelings and emotions, to discriminate among them, and to use this information to guide one's thinking and actions" (Salovey & Mayer, 1990: p. 189). An integral component of this construct involves the ability to recognize and regulate both the emotions of the self and others (Zeidner, Matthews, & Roberts, 2004). Meta-analytic studies have found that emotional intelligence is associated with a range of both physical and mental health variables (Schutte, Malouff, Thorsteinsson, Bhullar, & Rooke, 2007), as well as academic achievement and occupational performance (Van Rooy & Viswesvaran, 2004). Further, it has been suggested that emotional intelligence is a necessary component of social adaptation (Mayer, Salovey, & Caruso, 2002). For example, Lopes, Salovey, and Straus (2003) found that emotional intelligence was related to satisfaction with social relationships. Thus, it is likely that emotional intelligence is also influential in driving perceptions of social support and that it may be affected by early life events, such as childhood poly-victimization.

As a related construct, emotion regulation has been described as "the processes by which individuals influence which emotions they have, when they have

them, and how they experience and express them" (Gross, 1998, p. 285). Gratz and Roemer (2004) expanded upon this definition and postulated that emotion regulation is a multidimensional construct involving (a) an awareness and understanding of emotions, (b) the acceptance of emotions (c) the ability to inhibit impulsive behaviors when experiencing negative emotions and behave in ways congruent with desired goals, and (d) the ability to flexibly utilize emotion regulation strategies appropriate to the situation in order to respond in a way that is in accordance with individual goals or situational demands. Ineffective emotion regulation skills have been observed across a range of diverse symptom presentations (Gross & Munoz, 1995) and have been implicated in the development and maintenance of some clinical disorders, such as borderline personality disorder (Linehan, 1993). Given that many individuals with victimization histories experience clinical disorders and distress, the ability to effectively regulate emotions in response to a trauma may be important for how individuals perceive or seek support.

Indeed, literature suggests that childhood victimization disrupts the development of emotional intelligence and emotion regulation and that these disturbances carry over through development. According to Krause, Mendelson, and Lynch (2003) victimized children often grow up in emotionally invalidating environments which may encourage maladaptive strategies for managing emotions. The extreme emotional demands that these volatile environments impose on children encourage avoidance and suppression behaviors that interfere with the development of emotional awareness and understanding (Linehan, 1993).

To the authors' knowledge, there are no studies of emotional intelligence among adults poly-victimized as children, and only a few of emotion regulation. Although the majority of the emotion regulation literature focuses on children, there

have been a few studies of adults that suggest these consequences are enduring and persist for many years. For example, adults who reported sexual, physical, or emotional abuse in childhood exhibited increased levels of experiential avoidance and emotional nonacceptance, which are facets of emotion dysregulation (Gratz, Bornovalova, Delany-Brumsey, Nick, & Lejuez, 2007). A similar study found that adult women with histories of childhood victimization reported greater emotion regulation difficulties compared to women without abuse histories (Burns, Jackson, & Harding, 2010).

The cognitive reactivity diathesis-stress perspective (Beck, 1967; Segal, 1988; Williams, Watts, MacLeod, & Mathews, 1997) offers a possible explanation for why these emotional difficulties persist into adulthood. This perspective posits that childhood events guide the development of schemas involved in the appraisal of self, others, and the world. These appraisals influence later psychosocial resources, such as awareness, knowledge and regulation of emotions as well as coping styles, like seeking social support. Thus, early life stress may interfere with the ability to appraise and regulate emotions. Further, because emotional intelligence and emotion regulation have been implicated in the use and development of social support (Salovey, Bedell, Detweiler, & Mayer, 1999), this interference due to stress may decrease the use of support networks. It has been postulated that individuals who are cognizant of, and able to regulate, their emotions are more easily able to call on their supportive networks (Gallagher & Vella-Brodrick, 2008). For instance, Di Fabio and Kenny (2012) found that individuals who rated themselves as high in emotional intelligence perceived higher levels of social support from others. Thus, it appears that individuals who can recognize when they need support and appropriately seek it out perceive themselves as high in emotional competence (Di Fabio & Kenny, 2012).

The Present Research

Childhood poly-victimization has been associated with a range of adverse outcomes both concurrently and into adulthood. Although the benefits of social support as a protective factor are generally well-understood, few studies have examined factors that promote perceptions of social support among victimized individuals. Previous research suggests that adults victimized as children have difficulty understanding and regulating their emotions (Burns et al., 2010; Gratz et al., 2007), which may interfere with their ability to utilize social support resources. Thus, two constructs that may act as important mechanisms of social support are emotional intelligence and emotion dysregulation. This relation is especially important to examine during the emerging adulthood years when individuals are striving for autonomy while simultaneously navigating new relationships and responsibilities.

The current study examined the relation between social support and victimization in a sample of emerging adults and explored possible mechanisms, specifically emotional intelligence and emotion dysregulation, underlying this relation (see Figure 1 for the proposed study model). It was hypothesized that (1) poly-victimization during childhood would be associated with lower levels of social support, such that as the number of childhood victimization experiences increase, the level of perceived social support from both family and friends will decrease, (2) the relation between childhood poly-victimization and social support from family and friends would vary by gender, and (3) emotional intelligence and emotion dysregulation would mediate the relations between childhood victimization and the perception of support from family and friends.

Method

Participants

Participants included 304 emerging adult college students (71.4% female), aged 18 to 24 ($M = 19.18$, $SD = 1.40$) (see Table 1). Given that this study focused on the impact of poly-victimization, all participants self-reported experiencing at least two forms of childhood victimization, such as interpersonal aggression, child maltreatment, community violence, sexual assault, and/or peer and sibling victimization. Participants were excluded if they were outside the age range of 18 and 24 and if they could not read English fluently. The participants were from varied racial and ethnic backgrounds, with 65.5% identifying as White, 19.4% Black, 5.6% Bi-racial/Multi-racial, 4.9% Asian, 4.3% Latino/Latina, and 0.3% as Other. Additionally, slightly more than half of participants (51.3%) were enrolled in their first year of college. Participants came from diverse socioeconomic backgrounds, with nearly a third of participants (32.7%) reporting a yearly family income of more than 150,000 USD and 28.4% reporting a yearly family income of less than 60,000 USD.

Procedures

Data were collected from two sites that used the same study procedures and protocols. Upon receiving IRB approval at each site, students from a university in the Midwest and a university in the Southeast United States were recruited through the Department of Psychology subject pool systems. Upon study completion, students were compensated for their time with psychology course credit. Participants did not meet with staff members at any point during the study, which maximized anonymity and privacy.

In addition to providing demographic information, participants were asked to complete a battery of self-report measures that assessed their childhood experiences

with victimization, as well as their current psychosocial functioning and social support networks. Given that some of the questionnaires included questions on sensitive, potentially distressing topics, a list of local and national mental health, counseling and support resources was made available to all participants. A total of 395 surveys were collected across sites. Prior to data analysis, investigators removed all participants who consistently responded with only one answer across measures ("flatliners," $n = 26$). Additionally, participants outside of the 18-24 age range, or those who did not provide their age, were also removed ($n = 25$). Given this study's focus on the impact of poly-victimization, the sample was limited to participants who endorsed experiencing two or more victimization experiences during childhood; thus participants endorsing one or no victimization experiences were also excluded ($n = 40$). Total sample size for analysis was $N = 304$.

Measures

Means, standard deviations, and Cronbach's alpha coefficients for all measures can be found in Table 2.

Juvenile Victimization Questionnaire – Adult Retrospective – Short Form (JVQR2). The JVQR2 is a 34-item self-report measure that assesses a broad range of childhood victimization experiences on which adults retrospectively report (Finkelhor, Hamby et al., 2005). Individuals are asked (yes/no) if they experienced certain forms of victimization from birth to age 17. The JVQR2 examines a wide range of victimization experiences, both in terms of frequency of victimization as well as severity of victimization, such as property crime, physical assault, child maltreatment, peer/sibling victimization, witnessed/indirect victimization, and sexual victimization. Additionally, five items assessing childhood exposure to intimate partner violence were added to the protocol. Affirmative responses to each item were

summed to create a total victimization score. The JVQR2 has been used in several studies examining young adults' recollections of childhood victimization experiences (Elliot et al., 2009; Howell & Miller-Graff, 2014; Richmond, Elliott, Pierce, Aspelmeier, & Alexander, 2009). JVQR2 items do not uniformly relate to one another, as participants may experience one victimization event without necessarily experiencing another. Thus, a reliability statistic was not calculated for this measure.

Lubben Social Network Scale – Revised (LSNS-R). The LSNS-R (Lubben & Gironda, 2003) is a 12-item self-report measure used to examine the level of perceived social support from family and friends. The LSNS-R utilizes a 6-point Likert scale from (0) *least connected* to (5) *most connected*. The measure contains three components: family networks (e.g., "How many relatives do you see or hear from at least once a month?"), friendship networks (e.g., "How many friends do you feel at ease with, like you can talk about private or personal matters?") and interdependent social supports (e.g., "How often is one of your friends available for you to talk to when you have an important decision to make?"). As is consistent with recommendations from the measure developers, family and friends items were summed separately to create perceived social support scores for each network. The LSNS-R has shown adequate internal consistency when subscales are combined, with an alpha coefficient of .78 (Lubben, Gironda, & Lee, 2001). When the subscales were separated, Cronbach's alpha for the current study was $\alpha = .77$ for Family and $\alpha = .81$ for Friends.

Brief Emotional Intelligence Scale (BEIS-10). Interpersonal and intrapersonal emotional functioning was assessed with the Brief Emotional Intelligence Scale-10 (Davies, Lane, Devonport, & Scott, 2010). The BEIS-10 is a self-report measure based on the 33-item Emotional Intelligence Scale (EIS: Schutte

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et al., 1998). It requires individuals to estimate the extent to which they agree or disagree with items on a 5-point Likert scale from (1) *strongly disagree* to (5) *strongly agree*. The measure is comprised of five subscales, including appraisal of own emotions (e.g., "I know why my emotions change"), appraisal of others' emotions (e.g., "I can tell how people are feeling by listening to the tone of their voice"), regulation of own emotions (e.g., "I have control over my emotions"), regulation of others' emotions (e.g., "I help other people feel better when they are down"), and utilization of emotions (e.g., "I use good moods to help myself keep trying in the face of obstacles"). Subscales are summed to create a total score. The BEIS-10 has demonstrated good internal consistency, with alpha coefficients ranging from .87 to .89, as well as good test-retest reliability, with the proportion of agreement scores ranging from 89.2% to 96.4% over a two-week period (Davies et al., 2010). In the present study, Cronbach's alpha was $\alpha = .76$.

Difficulties in Emotion Regulation Scale (DERS). The DERS (Gratz & Roemer, 2004) is a 36-item self-report measure designed to evaluate clinically relevant difficulties in emotion regulation. The DERS is comprised of six subscales each assessing a different dimension of emotion dysregulation: Awareness (lack of awareness of emotions), Clarity (lack of understanding of emotions), Nonacceptance (nonacceptance of emotions), Strategies (perception of limited access to adaptive emotion regulatory strategies), Impulse (difficulties refraining from impulsive behaviors when experiencing negative emotions), and Goals (difficulties engaging in goal-directed behavior while distressed). Items are scored on a 5-point Likert scale from (1) *almost never* to (5) *almost always*. Consistent with other studies (e.g., Bardeen, Fergus, & Orcutt, 2012), the Awareness subscale was removed from the current analysis because it did not significantly contribute to the latent variable for

emotion dysregulation (factor loading = .27). The DERS has demonstrated both construct and discriminant validity, and also shows adequate test-retest reliability, with a range of .57 to .89 for the subscales (Gratz & Roemer, 2004). In the current study, reliability for items from the five subscales was $\alpha = .95$

Data Analytic Plan

Means, correlations, and standard deviations were computed for all variables in IBM's Statistical Package for the Social Sciences (SPSS) 22.0. The hypothesized relation between childhood poly-victimization and perceived social support from family and friends in emerging adulthood was examined using correlations. Next, independent samples *t*-tests were used to examine the hypothesized gender differences in levels of social support. Finally, structural equation modeling was used to assess the hypothesized mediating role of emotion dysregulation and emotional intelligence in the relation between childhood poly-victimization and perceived social support from family and friends. Structural equation modeling was chosen because it contains a measurement model that defines latent variables, as well as a structural regression model that links such latent variables together (Muthen & Muthen, 1998-2013). Potential mediation effects of emotion dysregulation and emotional intelligence, were computed in MPLUS 7.11 (Muthen & Muthen, 1998-2013). Fit indices of models, including the Model χ^2, root mean square error of approximation (RMSEA), standardized root mean square residual (SRMR), Tucker-Lewis Index (TLI), and Comparative Fit Index (CFI), were evaluated using recommendations by Hopper, Coughlin, and Mullen (2008).

Results

Means and standard deviations for all study variables can be found in Table 2. On average, participants experienced 9 ($SD = 6.12$) different forms of victimization

during childhood, with 92.4% endorsing at least one form of peer/sibling victimization, 82.9% reporting at least one exposure to conventional crime, 69.7% experiencing at least one instance of indirect or witnessed violence, 42.8% reporting at least one form of sexual victimization, 37.2% witnessing at least one instance of intimate partner violence, and 35.9% of the sample reporting at least one instance of child maltreatment. The sample was limited to individuals who were poly-victimized, so all participants experienced at least two types of victimization. There was substantial variability in the total number of victimizations endorsed, ranging from 2 to 36 separate incidences.

Proposed Study Model

The proposed study model can be found in Figure 1. Structural equation modeling was used to assess the relation between childhood poly-victimization and social support from friends and family in adulthood, as well as the meditational influence of emotional intelligence and emotion dysregulation. The overall model fit was poor ($\chi^2 = 99.81$, $p = .000$, RMSEA = .115, CFI = .915, TLI = .860, SRMR = .105), suggesting the data do not fit the proposed model.

Given the poor fit of the proposed model, separate analyses were conducted to determine the individual relations among the study variables and to examine each study hypothesis. Intercorrelations among study variables can be found in Table 3. The first hypothesis proposed that the number of childhood victimization experiences would be inversely related to support from family and friends during young adulthood. Significant relations were found in the expected direction between poly-victimization and both support variables, indicating that more childhood victimization experiences were negatively related to support from family ($r = -.30$, $p < .001$) and support from friends ($r = -.20$, $p = .001$) during the emerging adulthood years.

It was hypothesized that there would be gender differences in the relation between childhood poly-victimization and social support from family and friends. However, examinations of gender using independent samples t-tests revealed no statistically significant differences ($p > .05$) between men and women in their perceived average amount of social support from friends ($M = 23.91$, $SD = 5.17$ for men; $M = 24.24$, $SD = 5.36$ for women), perceived social support from family ($M = 22.15$, $SD = 4.73$ for men; $M = 22.85$, $SD = 5.28$ for women), emotion dysregulation ($M = 62.25$, $SD = 18.01$ for men; $M = 66.50$, $SD = 22.90$ for women), emotional intelligence ($M = 39.99$, $SD = 3.89$ for men; $M = 39.79$, SD = 4.42 for women), or childhood victimization experiences ($M = 9.37$, $SD = 5.21$ for men; $M = 9.55$, $SD =$ 6.46 for women). All additional analyses were therefore collapsed across gender.

The third hypothesis predicted that emotional intelligence and emotion dysregulation would act as mediators in the relation between childhood poly-victimization and social support from family and friends. Per the work of Hayes (2009), for a variable to act as a mediator it must be related to both the predictor and outcome variables it is thought to mediate. Even though emotional intelligence was positively related to social support from family ($r = .21$, $p < .001$), and social support from friends ($r = .22$, $p < .001$), it was not significantly related to childhood poly-victimization ($r = -.03$, $p = .60$), so it was removed from subsequent mediation analyses. Emotion dysregulation was significantly related, in the expected directions, to both childhood victimization ($r = .23$, $p < .001$) and social support from family ($r = -.22$, $p < .001$) and friends ($r = -.15$, $p = .019$). Thus, emotion dysregulation was retained in the mediation analyses.

Final Study Model

Structural equation modeling was used to determine the effect of emotion dysregulation on the relation between childhood victimization and perceived social support from family and friends. The overall model for emotion dysregulation as a mediator between childhood victimization and young adulthood social support was significant, with fit indices ranging from reasonable to good ($\chi^2 = 41.00$, $p = .001$, RMSEA = .073, CFI = .972, TLI = .953, SRMR = .040). All pathways were significant, except for the path between emotion dysregulation and perceived social support from friends (see Figure 2 and Table 4). Standardized estimates ranged from -.188 to -.25, representing small effect sizes (Cohen, 1988). In this model, higher levels of emotion dysregulation during emerging adulthood were significantly associated with less perceived support from family. Emotion dysregulation was not significantly associated with perceived support from friends.

Follow-up analyses to test the indirect effect of emotion dysregulation on childhood victimization and family social support were computed (see Figure 2). Results revealed that there was a significant indirect effect of emotion dysregulation on the relation between childhood victimization and perceived support from family (Estimate = -.038, $p = .046$). The estimate for this indirect effect was significantly different from zero, as assessed by bootstrapped (95%) confidence intervals, supporting possible mediating pathways (see Table 3). However, the direct effect between childhood poly-victimization and perceived family support remained significant (Estimate = -.212, $p < .001$), suggesting that childhood poly-victimization continues to impact perceived support from family, even after accounting for current levels of emotion dysregulation. Thus, results suggest partial support for the third hypothesis that the relation between victimization experiences in childhood and social

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support from family and friends during emerging adulthood would be explained by the influence of participant's current levels of emotion dysregulation. Specifically, emotion dysregulation served as a partial mediator in the relation between childhood victimization and social support from family.

Discussion

The purpose of this study was to examine the relation between childhood poly-victimization and social support in emerging adulthood and to explore possible mechanisms underlying this association. A primary strength of this project is the assessment of social support as an outcome variable, rather than a mediating or moderating variable as it has been most frequently examined. Further, study results highlight the enduring consequences of childhood poly-victimization and underscore how these adverse events remain impactful even into emerging adulthood. These findings support the notion that childhood victimization experiences have long-lasting implications across developmental periods. Finally, this study sheds light on differences in perceptions of support across networks (e.g., family and friends) and illustrates the variability in how these networks may be differentially influenced.

With respect to the proposed model, there were two key components (variations across gender and the relation between childhood poly-victimization and emotional intelligence) that did not operate as expected. Regarding gender, results revealed no significant differences on rates of childhood poly-victimization and perceived support from family or friends, or any other study variable. Previous literature has been inconsistent in terms of gender variations in the perception of social support, with some studies finding no differences between men and women in their levels of perceived parental or peer support (Li et al., 2014) and others finding that women perceive more support than men when friendship networks are examined

(Dwyer & Cummings, 2001). Current study findings indicated that men and women reported comparable levels of relatively high social support from both family and friends. It is possible that gender differences would have emerged at lower levels or more moderate levels of support. The relatively high reports of perceived social support from both family and friends could be an artifact of the college student population included in this study, given that emerging adult college students often have strong support systems in place. Thus, it is plausible that gender differences and variability on the measure of social support would be more apparent if participants were included from variable backgrounds, rather than only individuals currently enrolled in college.

The unexpected finding that childhood poly-victimization was not significantly related to emotional intelligence in emerging adulthood also warrants additional exploration. There is literature to suggest that victimized children often spend their formative years in emotionally invalidating environments (Krause et al., 2003) and that the emotional demands associated with these environments may interfere with children's ability to develop strategies for managing emotions, as well as awareness and understanding of emotions (Linehan, 1993). Thus, it appears that childhood poly-victimization would be associated with lower emotional intelligence later in life. One possibility as to why this theorized relation was not supported by results from the current study speaks to the broad construct of emotional intelligence, which involves "the ability to monitor one's own and other's feelings and emotions, to discriminate among them, and to use this information to guide one's thinking and actions" (Salovey & Mayer, 1990: p. 189). There has been debate over the most central characteristics of emotional intelligence (Davies et al., 2010), as it is thought to involve a number of abilities and skills. Given this, it is possible that the

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abbreviated measure of emotional intelligence (BEIS-10) used in the current study did not adequately capture the construct of emotional intelligence. Despite the BEIS-10 displaying adequate to good internal consistency (Davies et al., 2010), perhaps using a more comprehensive and extensive measure of emotional intelligence would have shown relations to childhood poly-victimization. It could be that the 10-item measure simply did not offer enough of a nuanced assessment of this broad construct, which may account for the nonsignificant relation between childhood poly-victimization and emotional intelligence in emerging adulthood.

When emotional intelligence was removed and all other relations collapsed across gender, a model that fit the data well was produced. This model examined the relation between childhood poly-victimization and perceived social support from family and friends in emerging adulthood, with emotion dysregulation as a mechanism of this relation. Consistent with study hypotheses, and central to the proposed model, childhood victimization was negatively associated with perceived social support from family and friends during emerging adulthood. Findings indicate that poly-victimization in childhood directly and negatively impacts perceived levels of social support from both family and friend during the emerging adulthood years. This is in line with previous studies that have also found a significant, direct relation between childhood victimization and lower perceptions of social support from family and friends (Pepin & Banyard, 2006; Sperry & Widom, 2013; Stevens et al., 2013; Weber & Cummings, 2003). The current study extends these findings by assessing the influence of childhood *poly-victimization*, as well as by examining this relation in emerging adults. Given that children are infrequently exposed to single episodes of violence (Finkelhor et al., 2007; Finkelhor, Ormrod et al., 2009; Finkelhor et al., 2013; Turner et al., 2010), a notable strength of this study was including a measure of

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poly-victimization, as this allows for a more nuanced, and realistic, evaluation of children's experiences and how these experiences carry over across developmental periods.

Further, studying the relation of childhood poly-victimization and social support in a population of emerging adults is crucial, as this is a developmental period that is characterized by rapidly changing relationships and the quest for increased autonomy. Several studies have highlighted a number of challenges that emerging adults may face, such as stress-related difficulties (Edwards et al., 2001; Nonis et al., 1998), and, for many, being away from supportive networks for the first time. Given that supportive relationships have been implicated as aiding in a successful transition to emerging adulthood (Settersten & Ray, 2010; Shulman et al., 2009), this study adds to the literature by examining how childhood poly-victimization influences a potentially vulnerable population experiencing a number of new challenges.

After finding that childhood poly-victimization was directly related to perceived social support from friends and family in emerging adulthood, mechanisms underlying this relation were examined. Emotion dysregulation was found to be positively related to childhood poly-victimization. These results support previous findings that stressors in childhood, such as poly-victimization, appear to interfere with the development of adaptive emotion regulatory skills (Kim & Cicchetti, 2010). Furthermore, findings support the notion that these difficulties are enduring, and persist into adulthood, underscoring the pervasive impact of poly-victimization and its effect on later functioning.

It is of note that emotion dysregulation, but not emotional intelligence, was related to childhood poly-victimization, as a key component of emotional intelligence is the ability to regulate one's emotions (Mayer et al., 2004; Salovey & Mayer, 1990).

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Thus, this differential relation marks a notable distinction in how these constructs are influenced by childhood events. The management and regulation of emotions is often thought of as a cluster of skills or abilities (Gratz & Roemer, 2004). While some researchers have conceptualized emotional intelligence in a similar way (Mayer et al., 2004; Salovey & Mayer, 1990), it is possible that the skills involved in emotion regulation are more susceptible to the impact of stressful events, such as childhood victimization. For instance, victimization is known to impact regulatory capacities of both children (Ford, Chapman, Mack, & Pearson, 2006) and adults (Briere, 2002; Messman-Moore, Brown, & Koelsch, 2005). Although, children initially rely on external sources, such as caregivers, to regulate their emotions and behavior, they gradually begin to rely on their own, internal self-regulation skills as they get older (Dodge & Garber, 1991; Salmon & Bryant, 2002). It has been suggested that exposure to traumatic stressors, such as victimization during childhood, can evoke intense states of negative affect which in turn interfere with the development and maintenance of core regulatory capacities (Osofsky, Wewers, Hann, & Fick, 1993). Thus, childhood victimization may be more tied to these disturbances in the development of adaptive regulatory skills, than the broader construct of emotional intelligence.

Interestingly, emotion dysregulation was related to perceived social support from family, but not from friends. These results suggest that there are differences among supportive networks and the factors that might be influential in bolstering these networks. It is likely that study findings reflect characteristics specific to each source of support. For example, unlike family, peer groups and friendships represent unique relationships that individuals are able to select for themselves (Sabitelli & Anderson, 1991). The self-selective nature of friendships could help account for why

emotion dysregulation was not influential among this supportive network. For instance, participants may choose friends who do not test their emotion regulatory skills. It could be that some participants have difficulties with managing and regulating their emotions, but are not in peer groups that interact with or exacerbate these difficulties. In this case, an individual's predisposition towards emotion dysregulation may not be particularly influential when evaluating perceptions of the friendship network. On the other hand, individuals with poly-victimization histories may seek out friends who mimic the chaotic family environments wherein some victimization may be occurring. For this reason, continuing to tease apart the unique relations between childhood poly-victimization, emotion dysregulation, and perceived social support from different supportive networks is crucial.

In any case, family dynamics are quite different from peer relations. Notably, individuals cannot select their family in the way they select their peers. Thus, individuals may be more prone to environments or situations in which their emotion regulation skills are tested, given that many victimized children grow up in volatile, emotionally invalidating environments (Krause et al., 2003). Study results support this notion, as poly-victimization during childhood was related to more emotion dysregulation, and in turn, less perceived support from family. Further, emotion dysregulation partially mediated this relation, suggesting that the ability to regulate and manage one's emotions is particularly influential in driving perceptions of social support from family. The direct relation between childhood poly-victimization and perceived social support from family in emerging adulthood remained significant even after accounting for the role of emotion dysregulation, which underscores the powerful impact of victimization in childhood on later adulthood experiences.

Clinical Implications

The results from this study highlight important areas for clinical intervention. First, the robust influence of childhood poly-victimization on perceived social support from both family and friends is evident. Given that social support is a powerful protective agent, interventions for individuals who are victimized as children should contain support-building elements in an effort to maintain and bolster supportive networks following childhood adversity. These interventions should focus on both family and friend support networks, as both were heavily influenced by childhood poly-victimization. Second, interventions should also target emotional functioning (particularly emotion dysregulation) as difficulties in this area were related to less perceived support, particularly from family. Finally, interventions should take into account the unique challenges associated with emerging adulthood (e.g., school-related stress, separation from family, new friendships), and incorporate skills that are relevant to this particular developmental period. As the sample for this study consisted of emerging adult college students, organizing interventions that are easily accessible (e.g., on or near campus) may be particularly beneficial.

Limitations

Although this study had a number of strengths, there are also limitations that should be considered when interpreting results. Notably, the retrospective design draws caution to the results, as there is a risk for bias or inaccurate reports of childhood events. Some studies, for example, have found variable and unreliable reports of childhood victimization experiences studied retrospectively (Fergusson, Horwood, & Woodward, 2000; White, Hsin-Chen, & Widom, 2007) whereas other findings point to stable, reliable reports of such experiences (Dube, Williamson, Thompson, Felitti, & Anda, 2004). Thus, concerns about the reliability of

retrospective reports of childhood victimization experiences should be taken into consideration when interpreting the results of this study.

Additionally, the correlational design of this study does not allow for examination of study variables over time. It is likely that perceptions of social support, emotion dysregulation, and emotional intelligence may vary and such variations cannot be accounted for here. Third, only self-report data was included in this study. Given the participants' varied poly-victimization histories, it is possible that some participants may not be able to accurately reflect on their functioning. Furthermore, we did not account for other important markers of functioning (e.g., mental health) which could impact participants' perception of their supportive networks. Given that there is no test-retest reliability, the JVQR2 is also somewhat weak, psychometrically.

Moreover, the sample for this study poses some limits to generalizability, as the majority of respondents were White females. While gender did not emerge as significant in this study, other research has found that women are more likely to perceive and utilize support as compared to men. Thus, the findings from this study may have been influenced by the large proportion of female participants. Additionally, the limited racial/ethnic composition precludes us from examining relevant ethnic and cultural differences in the perception of social support from both family and friends. Finally, this study consisted entirely of college students who are likely a unique population of emerging adults with some level of supports already in place. Thus, there may be differences in how emerging adults who do not attend college perceive support that were not captured in the present study.

Future Directions

Future studies should strive towards more comprehensive, prospective longitudinal designs that include data from multiple informants. Prospective longitudinal studies are particularly important for the childhood victimization literature as these designs would allow for an understanding of the etiology and causality of the myriad of outcomes associated with childhood poly-victimization. Additionally, gathering data longitudinally from children with poly-victimization histories, as well as family members and other relevant individuals in children's lives (e.g., peers, teachers), may be useful in determining how children adjust following victimization. These studies would allow for more accurate representations of both victimization experiences as well as individuals' functioning in a variety of domains, (e.g., interpersonally, academically, etc.) and across time. Additionally, more comprehensive studies that include other relevant factors, such as measures of mental health, would help shed light on the experiences impacting individuals' perceptions of social support following childhood poly-victimization, which could be incorporated into interventions and treatment programs designed to enhance perceptions of support. The childhood victimization literature as a whole would also benefit from future work establishing reliability for commonly used victimization measures, such as the JVQR2.

Future studies should also incorporate more diverse samples of participants, both in terms of age/developmental stage, and of college and non-college students. Although the tasks of emerging adulthood (e.g., navigating increased autonomy and burgeoning interpersonal relationships) are not tied to college enrollment, these experiences are likely very different for individuals in college and those not enrolled in college. For example, some college students may find themselves away from their

families and friends for the first time, which could be a particularly challenging experience that those who are not enrolled in college do not experience. Similarly, non-college students may enter the workforce sooner than college-bound students, and experience difficulty navigating this increased responsibility and autonomy. Therefore, assessing the different experiences of college and non-college bound emerging adults would help shed light on factors that may be particularly relevant to perceptions of social support.

Conclusion

In conclusion, this study examined the relation of childhood poly-victimization to perceived social support from family and friends in emerging adulthood. Variations in this relation across gender were examined, in addition to the potential mediating roles of emotional intelligence and emotion dysregulation. Although no significant gender differences emerged, results revealed that childhood poly-victimization was significantly related to lower perceptions of social support from both family and friends in emerging adulthood. Surprisingly, only emotion dysregulation, and not emotional intelligence, was related to childhood poly-victimization. Additionally, emotion dysregulation partially mediated the relation between childhood poly-victimization and perceived support from family, suggesting that the ability to regulate one's emotions may be particularly influential in how support from family is perceived. Results underscore the pervasive nature of childhood poly-victimization, and offer directions for intervention efforts targeted at emerging adults with poly-victimization histories.

References

Afifi, T. O., & MacMillan, H. L. (2011). Resilience following child maltreatment: a review of protective factors. *Canadian Journal of Psychiatry*, *56*(5), 266-272.

Arnett, J. J. (2000). Emerging adulthood: A theory of development from the late teens through the twenties. *American Psychologist*, *55*(5), 469-480. doi: http://psycnet.apa.org/doi/10.1037/0003-066X.55.5.469

Bal, S., Crombez, G., Van Oost, P., & Debourdeaudhuij, I. (2003). The role of social support in well-being and coping with self-reported stressful events in adolescents. *Child Abuse & Neglect*, *27*(12), 1377-1395. doi: http://dx.doi.org/10.1016/j.chiabu.2003.06.002

Banyard, V. L. (1999). Childhood maltreatment and the mental health of low-income women. *American Journal of Orthopsychiatry*, *69*(2), 161-171. doi: 10.1037/h0080418

Bardeen, J. R., Fergus, T. A., & Orcutt, H. K. (2012). An examination of the latent structure of the Difficulties in Emotion Regulation Scale. *Journal of Psychopathology and Behavioral Assessment*, *34*(3), 382-392. doi: 10.1007/s10862-012-9280-y

Barrera, M. (1986). Distinctions between social support concepts, measures, and models. *American Journal of Community Psychology*, *14*(4), 413-445. doi: 10.1007/BF00922627

Beck, A.T. (1967). *The diagnosis and management of depression*. Philadelphia, PA: University of Pennsylvania Press

Briere, J. (2002). Treating adult survivors of severe childhood abuse and neglect: Further development of an integrative model. In J.E.B. Myers, L. Berliner, J.

Briere, C.T. Hendrix, C. Jenny, & T.A. Reid (Eds.), *The APSAC handbook on child maltreatment* (2nd ed., pp. 175–203). Thousand Oaks, CA: Sage.

Burns, E. E., Jackson, J. L., & Harding, H. G. (2010). Child maltreatment, emotion regulation, and posttraumatic stress: The impact of emotional abuse. *Journal of Aggression, Maltreatment & Trauma*, *19*(8), 801-819. doi: 10.1080/10926771.2010.522947

Chan, K. L. (2013). Victimization and poly-victimization among school-aged Chinese adolescents: Prevalence and associations with health. *Preventive Medicine*, *56*(3), 207-210. doi: 10.1016/j.ypmed.2012.12.018

Cohen, J. (1988). *Statistical power analysis for the behavioral sciences*. New York, Academic Press.

Cutrona, C. E. (1996). Social support in couples: Marriage as a resource in times of stress (Vol. 13). London: Sage Publications.

Davies, K. A., Lane, A. M., Devonport, T. J., & Scott, J. A. (2010). Validity and reliability of a brief emotional intelligence scale (BEIS-10). Journal of Individual Differences, 31(4), 198-208. doi: http://psycnet.apa.org/doi/10.1027/1614-0001/a000028

Di Fabio, A., & Kenny, M. E. (2012). The contribution of emotional intelligence to decisional styles among Italian high school students. Journal of Career Assessment, 00(0), 1-11. doi: 10.1177/1069072712448893

Dube, S. R., Williamson, D. F., Thompson, T., Felitti, V. J., & Anda, R. F. (2004). Assessing the reliability of retrospective reports of adverse childhood experiences among adult HMO members attending a primary care clinic. *Child Abuse & Neglect*, *28*(7), 729-737. doi: http://dx.doi.org/10.1016/j.chiabu.2003.08.009

Dwyer, A. L., & Cummings, A. L. (2001). Stress, self-efficacy, social support, and coping strategies in university students. *Canadian Journal of Counselling, 35*(3), 208-220.

Edwards, K. J., Hershberger, P. J., Russell, R. K., & Markert, R. J. (2001). Stress, negative social exchange, and health symptoms in university students. *Journal of American College Health*, *50*(2), 75-79. doi: 10.1080/07448480109596010

Elliott, A. N., Alexander, A. A., Pierce, T. W., Aspelmeier, J. E., & Richmond, J. M. (2009). Childhood victimization, poly-victimization, and adjustment to college in women. *Child Maltreatment*, *14*(4), 330-343. doi:10.1177/1077559509332262

Evans, S. E., Steel, A. L., & DiLillo, D. (2013). Child maltreatment severity and adult trauma symptoms: Does perceived social support play a buffering role?. *Child Abuse & Neglect*, *37*(11), 934-943. doi: 10.1016/j.chiabu.2013.03.005

Evans, S. E., Steel, A. L., Watkins, L. E., & DiLillo, D. (2014). Childhood exposure to family violence and adult trauma symptoms: The importance of social support from a spouse. *Psychological Trauma: Theory, Research, Practice, and Policy*, *6*(5), 527-536. doi: 10.1037/a0036940

Fergusson, D. M., Horwood, L. J., & Woodward, L. J. (2000). The stability of child abuse reports: a longitudinal study of the reporting behaviour of young adults. *Psychological Medicine*, *30*(03), 529-544. doi: http://dx.doi.org/10.1017/S0033291799002111

Finkelhor, D., & Dziuba-Leatherman, J. (1995). Victimization prevention programs: A national survey of children's exposure and reactions. *Child Abuse & Neglect*, *19*(2), 129-139. doi: 10.1016/0145-2134(94)00111-7

Finkelhor, D., Hamby, S. L., Ormrod, R., & Turner, H. (2005). The Juvenile

  Victimization Questionnaire: reliability, validity, and national norms. *Child

  Abuse & Neglect*, *29*(4), 383-412. doi: 10.1016/j.chiabu.2004.11.001

Finkelhor, D., Ormrod, R. K., & Turner, H. A. (2007). Poly-victimization: A

  neglected component in child victimization. *Child Abuse & Neglect*, *31*(1), 7-

  26. doi: 10.1016/j.chiabu.2006.06.008

Finkelhor, D., Ormrod, R. K., & Turner, H. A. (2009). Lifetime assessment of poly-

  victimization in a national sample of children and youth. *Child Abuse &

  Neglect*, *33*(7), 403-411. doi: 10.1016/j.chiabu.2008.09.012

Finkelhor, D., Ormrod, R., Turner, H., & Hamby, S. L. (2005). The victimization of

  children and youth: A comprehensive, national survey. *Child

  Maltreatment*, *10*(1), 5-25. doi: 10.1177/1077559504271287

Finkelhor, D., Turner, H., Ormrod, R., & Hamby, S. L. (2009). Violence, abuse, and

  crime exposure in a national sample of children and youth. *Pediatrics*, *124*(5),

  1411-1423. doi: 10.1542/peds.2009-0467

Finkelhor, D., Turner, H. A., Shattuck, A., & Hamby, S. L. (2013). Violence, crime,

  and abuse exposure in a national sample of children and youth: an

  update. *JAMA Pediatrics*, *167*(7), 614-621.

  doi:10.1001/jamapediatrics.2013.42

Ford, J. D., Chapman, J., MACK, J. M., & Pearson, G. (2006). Pathways from

  traumatic child victimization to delinquency: Implications for juvenile and

  permanency court proceedings and decisions. *Juvenile and Family Court

  Journal*, *57*(1), 13-26. doi: 10.1111/j.1755-6988.2006.tb00111.x

Gallagher, E. N., & Vella-Brodrick, D. A. (2008). Social support and emotional intelligence as predictors of subjective well-being. *Personality and Individual Differences, 44*(7), 1551-1561. doi: 10.1016/j.paid.2008.01.011

Garber, J., & Dodge, K. A. (Eds.). (1991). The development of emotion regulation and dysregulation. New York: Cambridge University Press.

Gratz, K. L., Bornovalova, M. A., Delany-Brumsey, A., Nick, B., & Lejuez, C. W. (2007). A laboratory-based study of the relationship between childhood abuse and experiential avoidance among inner-city substance users: The role of emotional nonacceptance. *Behavior Therapy, 38*(3), 256-268. doi: 10.1016/j.beth.2006.08.006

Gratz, K. L., & Roemer, L. (2004). Multidimensional assessment of emotion regulation and dysregulation: Development, factor structure, and initial validation of the difficulties in emotion regulation scale. *Journal of Psychopathology and Behavioral Assessment, 26*(1), 41-54. doi: 10.1023/B:JOBA.0000007455.08539.94

Gross, J. J. (1998). The emerging field of emotion regulation: An integrative review. *Review of General Psychology, 2*(3), 271-299. doi: 10.1037/1089-2680.2.3.271

Gross, J. J., & Muñoz, R. F. (1995). Emotion regulation and mental health. *Clinical Psychology: Science and Practice, 2*(2), 151-164. doi: 10.1111/j.1468-2850.1995.tb00036.x

Hayes, A. F. (2009). Beyond Baron and Kenny: Statistical mediation analysis in the new millennium. *Communication Monographs, 76*(4), 408-420. doi: 1 0.1080/03637750903310360

Hobfoll, S. E., Bansal, A., Schurg, R., Young, S., Pierce, C. A., Hobfoll, I., &
Johnson, R. (2002). The impact of perceived child physical and sexual abuse
history on Native American women's psychological well-being and AIDS
risk. *Journal of Consulting and Clinical Psychology*, *70*(1), 252-257. doi:
10.1037/0022-006X.70.1.252

Hooper, D., Coughlan, J., Mullen, M. (2008) Structural equation modelling:
Guidelines for determining model fit. Electronic Journal of Business Research
Methods, 6(1), 53-60.

Howell, K. H., & Miller-Graff, L. E. (2014). Protective factors associated with
resilient functioning in young adulthood after childhood exposure to violence.
Child Abuse & Neglect, *38*(12), 1985-1994. doi:
10.1016/j.chiabu.2014.10.010

Kim, J., & Cicchetti, D. (2010). Longitudinal pathways linking child maltreatment,
emotion regulation, peer relations, and psychopathology. *Journal of Child
Psychology and Psychiatry*, *51*(6), 706-716. doi:10.1111/j.1469-
7610.2009.02202.x

Krause, E. D., Mendelson, T., & Lynch, T. R. (2003). Childhood emotional
invalidation and adult psychological distress: The mediating role of emotional
inhibition. *Child Abuse & Neglect*, *27*(2), 199-213. doi: 10.1016/S0145-
2134(02)00536-7

Li, S. T., Albert, A. B., & Dwelle, D. G. (2014). Parental and Peer Support as
Predictors of Depression and Self-Esteem Among College Students. *Journal
of College Student Development*, *55*(2), 120-138. doi:
http://dx.doi.org/10.1353/csd.2014.0015

Linehan, M. (1993). *Cognitive-behavioral treatment of borderline personality disorder*. New York: Guilford Press.

Lopes, P. N., Salovey, P., & Straus, R. (2003). Emotional intelligence, personality, and the perceived quality of social relationships. *Personality and Individual Differences*, *35*(3), 641-658. doi: http://dx.doi.org/10.1016/S0191-8869(02)00242-8

Lubben, J. & Gironda, M. (2003). Centrality of social ties to the health and well-being of older adults. In B. Berkman & L. Harootyan (Eds.) *Social Work and Health Care in an Aging Society* (pp. 319-350). New York: Springer Publishing Company.

Lubben, J., Gironda, M., & Lee, A. (2001). Refinements to the Lubben Social Network Scale: The LSNS-R. *The Behavioral Measurements Letter*, *7*, 2-11.

Marcenko, M. O., Kemp, S. P., & Larson, N. C. (2000). Childhood experiences of abuse, later substance use, and parenting outcomes among low-income mothers. *American Journal of Orthopsychiatry*, *70*(3), 316-326. doi: 10.1037/h0087853

Maughan, A., & Cicchetti, D. (2002). Impact of child maltreatment and interadult violence on children's emotion regulation abilities and socioemotional adjustment. *Child Development*, *73*(5), 1525-1542. doi: 10.1111/1467-8624.00488

Mayer, J. D., Salovey, P., & Caruso, D. R. (2004). Emotional intelligence: Theory, findings, and implications. *Psychological inquiry*, *15*(3)197-215. doi: http://dx.doi.org/10.1207/s15327965pli1503_02

McCarthy, G., & Taylor, A. (1999). Avoidant/ambivalent attachment style as a mediator between abusive childhood experiences and adult relationship

difficulties. *Journal of Child Psychology and Psychiatry*, *40*(3), 465-477.

doi: 10.1111/1469-7610.00463

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. doi:

10.1002/jts.20023

Mullen, P. E., Martin, J. L., Anderson, J. C., Romans, S. E., & Herbison, G. P. (1996).

The long-term impact of the physical, emotional, and sexual abuse of children:

a community study. *Child Abuse & Neglect*, *20*(1), 7-21. doi: 10.1016/0145-

2134(95)00112-3

Muller, R. T. (1997). A reciprocal effects model of social support and resilience: A

longitudinal study of high risk university students. Ottawa, Canada: Social

Sciences & Humanities Research Council, Standard Research Grant (No. 410-

98-1022).

Muthén, L. K., & Muthén, B. O. (1998-2013). Mplus User's Guide. Sixth Edition. Los

Angeles, CA: Muthén & Muthén.

Nazroo, J. Y., Edwards, A. C., & Brown, G. W. (1998). Gender differences in the

prevalence of depression: Artefact, alternative disorders, biology or roles?

Sociology of Health & Illness, *20*(3), 312-330. doi: 10.1111/1467-9566.00104

Nolen-Hoeksema, S. (2001). Gender differences in depression. *Current Directions in

Psychological Science*, *10*(5), 173-176. doi: 10.1111/1467-8721.00142

Nonis, S. A., Hudson, G. I., Logan, L. B., & Ford, C. W. (1998). Influence of

perceived control over time on college students' stress and stress-related

outcomes. *Research in Higher Education*, *39*(5), 587-605. doi:

10.1023/A:1018753706925

Osofsky, J. D., Wewers, S., Hann, D. M., & Fick, A. C. (1993). Chronic community

    violence: what is happening to our children?. *Psychiatry*, *56*(1), 36-45. doi:

    10.1521/00332747.1993.11024619

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. doi: 10.1080/00223980109603677

Pepin, E. N., & Banyard, V. L. (2006). Social support: A mediator between child

    maltreatment and developmental outcomes. *Journal of Youth and*

    Adolescence, *35*(4), 612-625. doi: 10.1007/s10964-006-9063-4

Powers, A., Ressler, K. J., & Bradley, R. G. (2009). The protective role of friendship

    on the effects of childhood abuse and depression. *Depression and*

    Anxiety, *26*(1), 46-53. doi: 10.1002/da.20534

Reis, H. T., Lin, Y. C., Bennett, M. E., & Nezlek, J. B. (1993). Change and

    consistency in social participation during early adulthood. *Developmental*

    Psychology, *29*(4), 633-645. doi: http://psycnet.apa.org/doi/10.1037/0012-

    1649.29.4.633

Richmond, J. M., Elliott, A. N., Pierce, T. W., Aspelmeier, J. E., & Alexander, A. A.

    (2009). Polyvictimization, childhood victimization, and psychological distress

    in college women. *Child Maltreatment*, *14*(2), 127-147. doi:

    10.1177/1077559508326357

Sabatelli, R. M., & Anderson, S. A. (1991). Family system dynamics, peer

    relationships, and adolescents' psychological adjustment. *Family Relations*,

    40(4)363-369. doi: http://dx.doi.org/10.2307/584891

Salmon, K., & Bryant, R. A. (2002). Posttraumatic stress disorder in children: The influence of developmental factors. *Clinical Psychology Review*, *22*(2), 163-188. doi: http://dx.doi.org/10.1016/S0272-7358(01)00086-1

Salovey, P., Bedell, B. T., Detweiler, J. B., & Mayer, J. D. (1999). Coping intelligently: Emotional intelligence and the coping process. In C. R. Snyder (Ed.), *Coping: The psychology of what works* (pp. 141-164). New York: Oxford University Press.

Salovey, P., & Mayer, J. D. (1990) Emotional intelligence. *Imagination, Cognition, and Personality*, *9*(3), 185-211. doi: 10.2190/DUGG-P24E-52WK-6CDG

Sarason, I. G., Sarason, B. R., & Shearin, E. N. (1986). Social support as an individual difference variable: Its stability, origins, and relational aspects. *Journal of Personality and Social Psychology*, *50*(4), 845-855. doi: 10.1037/0022-3514.50.4.845

Schutte, N. S., Malouff, J. M., Hall, L. E., Haggerty, D. J., Cooper, J. T., Golden, C. J., & Dornheim, L. (1998). Development and validation of a measure of emotional intelligence. *Personality and Individual Differences*, *25*(2), 167-177. doi: 10.1016/S0191-8869(98)00001-4

Schutte, N. S., Malouff, J. M., Thorsteinsson, E. B., Bhullar, N., & Rooke, S. E. (2007). A meta-analytic investigation of the relationship between emotional intelligence and health. *Personality and Individual Differences*, *42*(6), 921-933. doi: http://dx.doi.org/10.1016/j.paid.2006.09.003

Segal, Z. V. (1988). Appraisal of the self schema construct in cognitive models of depression. *Psychological Bulletin*, *103*, 147–162. doi: 10.1037/0033-2909.103.2.147

Settersten Jr., R. A., & Ray, B. (2010). What's going on with young people today? The long and twisting path to adulthood. *The Future of Children*, *20*(1), 19-41. doi: 10.1353/foc.0.0044

Shulman, S., Kalnitzki, E., & Shahar, G. (2009). Meeting Developmental Challenges During Emerging Adulthood The Role of Personality and Social Resources. *Journal of Adolescent Research*, *24*(2), 242-267. doi: 10.1177/0743558408329303

Sperry, D. M., & Widom, C. S. (2013). Child abuse and neglect, social support, and psychopathology in adulthood: A prospective investigation. *Child Abuse & Neglect*, *37*(6), 415-425. doi: 10.1016/j.chiabu.2013.02.006

Springer, K. W., Sheridan, J., Kuo, D., & Carnes, M. (2007). Long-term physical and mental health consequences of childhood physical abuse: Results from a large population-based sample of men and women. *Child Abuse & Neglect*, *31*(5), 517-530. doi: 10.2105/AJPH.93.7.110410.1016/j.chiabu.2007.01.003

Stevens, N. R., Gerhart, J., Goldsmith, R. E., Heath, N. M., Chesney, S. A., & Hobfoll, S. E. (2013). Emotion regulation difficulties, low social support, and interpersonal violence mediate the link between childhood abuse and posttraumatic stress symptoms. *Behavior Therapy*, *44*(1), 152-161. doi: 10.1016/j.beth.2012.09.003

Thoits, P. A. (1986). Social support as coping assistance. *Journal of Consulting and Clinical Psychology*, *54*(4), 416-423. doi: 10.1037/0022-006X.54.4.416

Turner, H. A., Finkelhor, D., & Ormrod, R. (2010). Poly-victimization in a national sample of children and youth. *American Journal of Preventive Medicine*, *38*(3), 323-330. doi: 10.1016/j.amepre.2009.11.012

Van Rooy, D. L., & Viswesvaran, C. (2004). Emotional intelligence: A meta-analytic investigation of predictive validity and nomological net. *Journal of Vocational Behavior*, *65*(1), 71-95. doi: http://dx.doi.org/10.1016/S0001-8791(03)00076-9

Walen, H. R., & Lachman, M. E. (2000). Social support and strain from partner, family, and friends: Costs and benefits for men and women in adulthood. *Journal of Social and Personal Relationships*, *17*(1), 5-30. doi: 10.1177/0265407500171001

Weber, L. J., & Cummings, A. L. (2003). Research and theory: Relationships among spirituality, social support and childhood maltreatment in university students. *Counseling and Values*, *47*(2), 82-95. doi: 10.1002/j.2161-007X.2003.tb00226.x

White, H. R., Widom, C. S., & Chen, P. H. (2007). Congruence between adolescent's self-reports and their adult retrospective reports regarding parental discipline practices during their adolescence. *Psychological Reports*, *101*(3F), 1079-1094. doi: 10.2466/pr0.101.4.1079-1094

Widom, C. S. (1989). Child abuse, neglect, and violent criminal behavior. *Criminology*, *27*(2), 251-271. doi: 10.1111/j.1745-9125.1989.tb01032.x

Williams, J. M. G., Watts, F. N., MacLeod, C., & Mathews, A. (1997). *Cognitive psychology and emotional disorders*. Chichester, England: Wiley.

Wilson, L. C., & Scarpa, A. (2013). Childhood abuse, perceived social support, and posttraumatic stress symptoms: A moderation model. *Psychological Trauma: Theory, Research, Practice, and Policy, 6*(5), 512-518. doi: 10.1037/a0032635

Zeidner, M., Matthews, G., & Roberts, R. D. (2004). Emotional intelligence in the workplace: A critical review. *Applied Psychology*, *53*(3), 371-399. doi: 10.1111/j.1464-0597.2004.00176.x

Table 1

Sample Demographics

Demographic Variables	N	%
Gender	304	71.4 (female)
Race		
White	199	65.5
Black	59	19.4
Bi-racial/Multiracial	17	5.6
Asian	15	4.9
Latino/Latina	13	4.3
Other	1	0.3
Year in College		
Freshman	156	51.3
Sophomore	76	25.0
Junior	41	13.5
Senior	24	7.9
Fifth year and beyond	7	1.5
Yearly Family Income (USD)		
Less than $30,000	34	11.2
$30,000 - $60,000	52	17.2
$60,000 - $90,000	54	17.8
$90,000 - $120,000	41	13.5
$120,000 - $150,000	23	7.6
More than $150,000	99	32.7

Table 1

Sample Demographics

	Mean	**SD**
Age (years)	19.18	1.40

Table 2

Descriptive Statistics for Study Measures

Variable	Mean (*SD*)	Range	Cronbach's α
Childhood Victimization	9.50 (6.12)	2-36	---
Family Social Support	22.65 (5.13)	4-32	.77
Friend Social Support	24.14 (5.23)	3-33	.81
Emotion Dysregulation	65.26 (21.64)	30-131	.95
Emotional Intelligence	39.85 (4.27)	25-50	.76
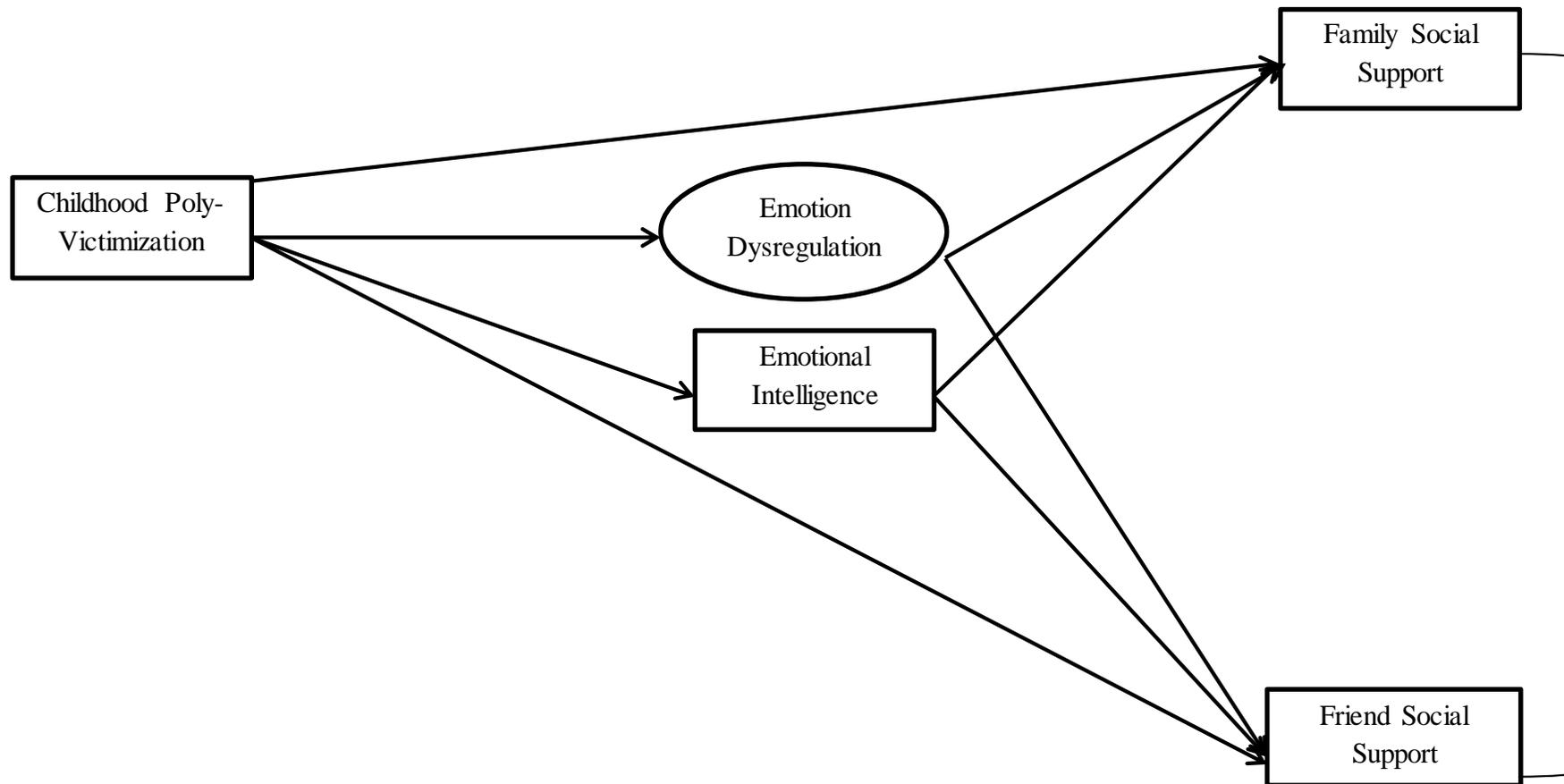
Figure 1. Proposed Model of Childhood Poly-Victimization, Emotion Dysregulation, Emotional Intelligence and Support from Family and Friends in Emerging Adulthood (Examined Separately by Gender)

Table 3

Correlations between Study Variables

Variable	1.	2.	3.	4.	5.
1. Childhood Poly-Victimization	1				
2. Family Social Support	-.30***	1			
3. Friend Social Support	-.20**	.35***	1		
4. Emotion Dysregulation	.22***	-.22***	-.15*	1	
5. Emotional Intelligence	-.04	.22***	.23***	-.38***	1

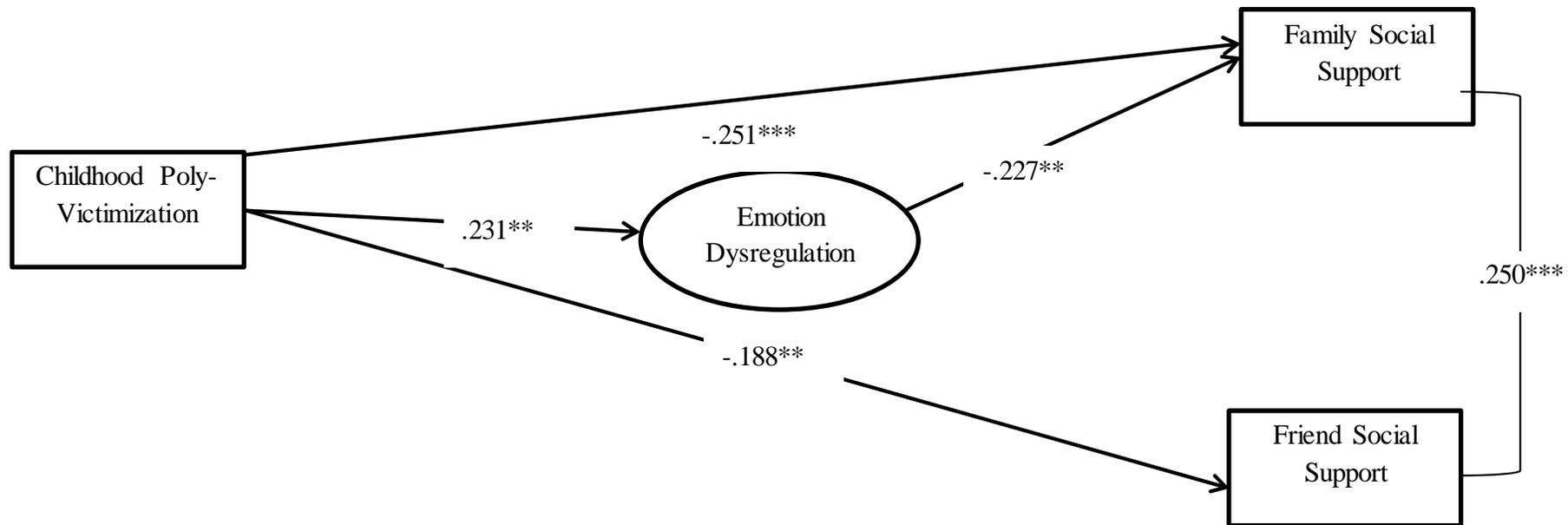*Note.* * $p < .05$ **$p < .01$ ***$p < .001$.

Figure 2. Structural Equation Model of Childhood Victimization, Emotion Dysregulation, and Support from Family and Friends in Emerging Adulthood

Note. Pathways are labeled with standardized estimates. Goodness of fit statistics = Model χ^2 = 41.00, *p* = .001, Root mean square error of approximation (RMSEA) =.073, Comparative Fit Index (CFI) = .972, Tucker-Lewis Index (TLI) = .953, Standardized root mean square residual (SRMR) = .040.
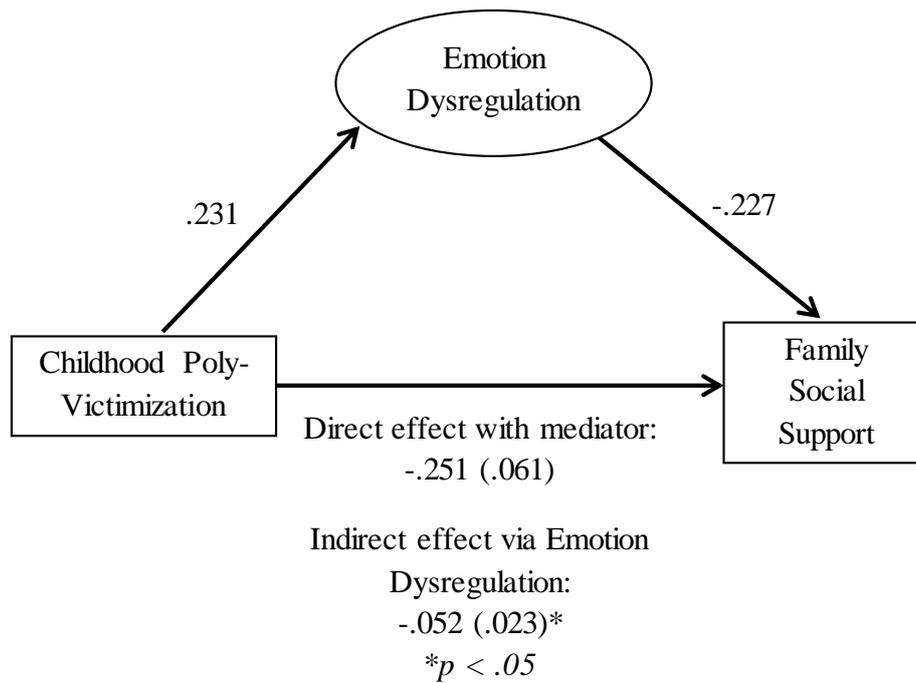**p* < .01 ****p* < .001.

Figure 3. Exploratory Mediation Model of Emotion Dysregulation on Childhood Poly-Victimization and Family Social Support

Note. Numbers not included in parentheses represent standardized Estimates; numbers inside parentheses are standard errors.

Table 4

Summary of Standardized Direct and Indirect Effects of Childhood Poly-Victimization and Emotion Dysregulation on Social Support from Family and Friends in Emerging Adulthood

	Effect	Bootstrapped CI Lower Limit (95%)	Bootstrapped CI Upper Limit (95%)
Direct Childhood Poly-Victimization to Family Social Support	-.251	-.301	-.124
Indirect Effect via Emotion Dysregulation	-.038	-.069	-.007
Direct Childhood Poly-Victimization to Friend Social Support	-.157	-.245	-.068
Direct Childhood Poly-Victimization to Emotion Dysregulation	.144	.059	.228
Direct Emotion Dysregulation to Family Social Support	-.262	-.387	-.137
Direct Emotion Dysregulation to Friend Social Support	-.136 (NS)	-.277	.005

Note. Goodness of fit statistics: Model $\chi^2 = 41.00$, $p = .001$, Root mean square error of approximation (RMSEA) = .073, Comparative Fit Index (CFI) = .972, Tucker-Lewis Index (TLI) = .953, Standardized root mean square residual (SRMR) = .040