1-1-2009

The Provision of Social Support by Adolescent Youth and Their Subsequent Risk for Secondary Traumatic Stress Reactions

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THE PROVISION OF SOCIAL SUPPORT BY ADOLESCENT YOUTH AND THEIR SUBSEQUENT RISK FOR SECONDARY TRAUMATIC STRESS REACTIONS

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A Dissertation

Presented to

the Faculty of Social Sciences

University of Denver

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In Partial Fulfillment

of the Requirements for the Degree

Doctor of Philosophy

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by

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August 2009

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Degree Date: August 2009

ABSTRACT

During adolescence, peers become increasingly important sources of social support for youth. In addition to discussing the trials and tribulations of daily life, it is possible that youth are having intimate conversations concerning their experiences of trauma. This study examined the types of traumatic experiences disclosed to youth by their friends, youth's experiences of supporting a friend following disclosure of trauma, youth's secondary traumatic stress (STS) reactions to their friends' disclosures, and potential risk factors for the development of STS. The validity of an adult measure of STS, the Secondary Trauma Scale, with an adolescent population was also explored. Utilizing qualitative and quantitative research methods, 60 youth (ages 11-16) participated in a semi-structured interview and completed questionnaires. Results suggest the preliminary validity of the Secondary Trauma Scale for use with adolescents. Additionally, increased levels of positive and negative affect were associated with increased levels of STS and general traumatic distress. Furthermore, females reported

more general posttraumatic symptomatology than males, while youth indirectly exposed to a friend's interpersonal trauma reported more symptoms of STS compared to youth indirectly exposed to a friend's noninterpersonal trauma. Implications for the development of programs to educate youth about peer helping and self-care strategies are discussed.

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INTRODUCTION

The primary goal of this research is to evaluate for symptoms of Secondary Traumatic Stress among youth who are indirectly exposed to traumatic material as a result of providing social support to a traumatized peer. Secondary Traumatic Stress (STS), otherwise known in the stress and trauma literature as vicarious traumatization or compassion fatigue, is believed to be a result of indirect exposure to the traumatic experiences of others. To date, the vast majority of research concerning STS has been conducted with adults in the mental health and health care professions. However, while research exists that suggests that youth can experience symptoms of STS as a result of exposure to news media of traumatic events or to a parent who has been traumatized, little, if any, research has addressed whether youth experience STS in other ways. More specifically, no research to date evaluates the development of stress symptoms among youth who are exposed to the traumatic experiences of their peers.

While youth trauma survivors may ultimately choose to share their traumatic stories with mental health care clinicians and/or their caregivers, youth are also likely, and perhaps in some situations more likely, to share their traumatic experiences with their close peers. As youth move through childhood into adolescence, their peer groups become increasingly important sources of social support. What information youth are indirectly exposed to as they seek to provide social support to their traumatized friends and how they react after hearing such stories is important to explore in order to consider

possible risk factors for the development of STS in adolescence. Understanding the nature and content of information that youth share with each other is also important from the standpoint of preparing youth to provide such informal support to their peers while also taking care of themselves in the process.

Therefore, the primary aims of this study seek to initiate an exploration into what kind of information adolescents are exposed to via the provision of social support to their peers and the general nature and experience of STS reactions that they might develop as a result of such exposure.

Background and Significance

Individuals encounter traumatic events ever more frequently in today's world. While direct exposure to a traumatic event can certainly have deleterious effects on individuals of all ages, research and clinical work has also found that individuals can experience traumatic stress following events at which they were not present, that is via indirect exposure to traumatic events. The resulting symptoms of traumatic stress that may occur after such secondary exposure has been known in the research and clinical literature by several names: vicarious traumatization (McCann & Pearlman, 1990; Pearlman & Saakvitne, 1995), compassion fatigue (Figley, 1995a; Joinson, 1992), and secondary traumatic stress (Figley, 1995a).

The term vicarious traumatization is attributed to McCann and Pearlman (1990) and has primarily been used to describe the secondary trauma reactions of mental health workers who work therapeutically with traumatized individuals, such as rape and child sexual abuse survivors (Figley, 1995a). Byrne and Sullivan (2006) added to the definition of vicarious traumatization that it is a response that individuals may have as a

result of exposure to media coverage of traumatic events, such as war, fires, earthquakes, and hurricanes. Similarly, the term compassion fatigue was first used by Joinson (1992) to characterize the experience of burnout found among nurses in the medical profession. Figley (1995a) and Jenkins and Baird (2002) include in their description of compassion fatigue that this form of traumatic stress is largely a result of prolonged exposure to the traumatic experiences and stories of others. The final term, secondary traumatic stress (STS), was created by Figley (1995a; 1995b), and will be the term utilized throughout this paper. Furthermore, while Figley (1995a) himself has defined STS, the definition that will be used for the purposes of this study is the definition provided by Motta (2005), the creator of one of the only measures of STS symptoms. Thus, STS is defined as, "A set of negative affective, cognitive, and behavioral responses brought about by close and extended contact with traumatized individuals and/or knowledge of trauma accounts," (Motta, 2005, p. 108).

Secondary Traumatic Stress: Symptoms and Risk Factors

Symptoms of STS for adults that have been discussed in the literature have been described as being similar to the symptoms of Post-Traumatic Stress Disorder (PTSD) as defined in the *Diagnostic and Statistical Manual of Mental Disorders - Fourth Edition, Text Revised (DSM-IV-TR)* (2000), but at subclinical levels (Bober & Regehr, 2006; Motta, Kefer, & Hertz, 1999; Suozzi & Motta, 2004). The specific symptoms of STS that have been mentioned in the adult research literature include: reexperiencing of the traumatic event(s), detachment, withdrawal, avoidance of trauma related stimuli, concentration difficulties, and sleep disturbances (Motta, 2005; Suozzi & Motta, 2004). Sabin-Farrell and Turpin (2003) suggest that symptoms of STS may also include changes

in beliefs and attitudes (i.e. changes to cognitive schemas), as well as changes in interpersonal and occupational functioning. Preoccupation with safety has also been discussed (Byrne & Sullivan, 2006), especially among children who may become wary and cautious after hearing about the danger that exists for others (Figley, 1998; McCann & Pearlman, 1990).

Many people may be indirectly exposed to the traumatic events of others, but not everyone can be expected to develop symptoms of STS. Several variables have been suggested as risk factors for the development of STS in adults, children and adolescents. Variables reported as risk factors include: previous direct exposure to traumatic events (Blanchard et al., 2004; Motta, Newman, Lombardo, & Silverman, 2004), emotional proximity to trauma victims or traumatic events and identification with the traumatized individual (Figley, 1998; Pfefferbaum & Pfefferbaum, 1998; Terr, 1990), degree or amount of indirect exposure to the traumatic material (Byrne & Sullivan, 2006; North & Pfefferbaum, 2002), level of empathy or empathic response (Morrissette, 2004), mental health status (Byrne & Sullivan, 2006), and an avoidant coping style (Byrne & Sullivan, 2006). In their research, Figley (1998) and Terr (1991) found that, for youth, personalization of a traumatic event to the point that they felt that their own safety, security, and control over their life had been threatened, feeling as though their future had been threatened, and a sense of powerlessness in the face of hearing about traumatic events were found to be factors that contributed to the development of symptoms of STS.

Several other variables, such as age, gender, and socioeconomic status, are mentioned in the literature (Byrne & Sullivan, 2006; Morrissette, 2004) as ones that might influence the development of symptoms of STS, but no research has been

conducted to specifically evaluate their influence. Furthermore, no research concerning STS has evaluated the relevance of ethnicity for the development of STS. Given the paucity of research involving the effects of the above variables, it is evident that more research needs to be conducted in order to clarify their significance for the development of STS.

Secondary Traumatic Stress, Mental Health Workers, and First-Responders

The majority of research concerning STS has been conducted with individuals in the helping profession, such as mental health workers, nurses and doctors (Byrne & Sullivan, 2006; Figley, 1995a, 1995b; Joinson, 1992), and has primarily addressed burnout and compassion fatigue (Bober & Regehr, 2006; Figley, 1995b; S. R. Jenkins & Baird, 2002; Sabin-Farrell & Turpin, 2003). More specifically, researchers have explored the role that "empathic engagement" plays in a mental health worker's experience of occupational stress, and what role hearing the trauma stories of others plays in disrupting their views of self and others and their belief in a just world (Bober & Regehr, 2006; Sabin-Farrell & Turpin, 2003). In one study of 173 child welfare workers who had heard the stories of traumatized clients, 46.7% of them reported a significant amount of traumatic stress symptoms (Regehr, Chau, Leslie, & Howe, 2002). Other researchers have also found that mental health worker's personal trauma history, along with the number of trauma cases on a therapist's caseload, contributes to their experience of STS symptoms (Bober & Regehr, 2006; Brady, Guy, Poelstra, & Brokaw, 1999; Ortlepp & Friedman, 2002). Thus, evidence from this research involving mental health care workers suggests that indirect exposure to the traumatic experiences of others may in fact lead to the development of traumatic stress reactions.

Secondary Traumatic Stress and Youth

While the research discussed in the previous section supports the presence of STS among adult mental health and health care workers, research concerning indirect traumatization has not been isolated to the adult population. Two main areas of research that have explored the incidence of STS in children include 1) living with a traumatized parent and 2) exposure to traumatic material via news coverage of traumatic events. While every day, children and adolescents are exposed to traumatic events indirectly via television news, newspapers, magazines, the internet, movies, and videos, such material typically exposes youth to the traumatic experiences of strangers, and not those with who they are in a close relationship. Therefore, due to the personal relationship between children and their parents, and the elements of emotional proximity and closeness inherent in the parent-child relationship, it is the literature detailing children's exposure to parental traumatic experiences that is of particular relevance to this study and will be discussed here.

Parental Trauma. One area that has been explored in the child and adolescent population is whether children can experience STS as a result of contact with a parent or caregiver who has experienced a traumatic event. Several studies have found that symptoms of STS were reported in adult children of Nazi concentration camp survivors (Danieli, 1988) as well as children of war veterans (Motta, Joseph, Rose, Suozzi, & Leiderman, 1997). It has been suggested that children of traumatized parents or caregivers may develop symptoms of posttraumatic stress as a result of their close relationship with their caregiver (Catherall & Figley, 1998; Danieli, 1988; Figley, 1995a; Rosenheck & Nathan, 1985). Thus, emotional proximity to a traumatic event may be one

explanation for why parental trauma, or the trauma of caregivers, can result in the development of STS in youth (Pfefferbaum & Pfefferbaum, 1998). Emotional proximity refers to the youth's level of emotional involvement with the individual(s) involved in the traumatic event (Pfefferbaum & Pfefferbaum, 1998). Perry and colleagues (1995) suggest, on the other hand, that it is the parent or caregiver's actual display of symptoms, such as pervasive hyperarousal and general distress, that may serve as the traumatizing agent in their children, in addition to the fact that traumatized caregivers may be unable to meet the needs of their children and cannot provide them with the emotional support that they may need during a difficult time. Furthermore, Catherall and Figley (1998) reported in their research that youth who experienced their parents as unable to support them emotionally were more likely to develop symptoms of STS in response to parental trauma. Overall, research appears to support the notion that children of traumatized parents are vulnerable to STS reactions.

Adolescent Friendship and Social Support

While research exists suggesting that children can experience symptoms of STS as a result of exposure to a parent who has been traumatized, little, if any, research has addressed whether youth experience STS in other ways. If adult mental health workers can experience STS as a result of work with trauma survivors, can the same happen for children and adolescents who provide informal social support to peers who have experienced a traumatic event? Social support is an interpersonal behavior wherein an individual seeks to assist another individual through the provision of social, emotional, and/or material resources (Janney & Snell, 2006; Wight, Botticello, & Aneshensel, 2006). Within the literature on stress and coping, receipt of social support is discussed as a

buffer, or protective factor, against the onset of physical and or mental health problems in the face of stressful experiences (Bierhoff, 1994; Joseph, 1999; Seiffge-Krenke & Shulman, 1995).

Research that explores the sources of social support for youth has largely looked at children's parents or caregivers as providers of that support rather than the valuable social support that might be provided by their peers (Oswald, Kruppmann, Uhlendorff, & Weiss, 1994). In the United States, the adolescent stage of life is typically marked by an increase in the amount of time that adolescents spend with their friends (Csikszentmihalyi & Larson, 1984; Karcher, Bradford Brown, & Elliott, 2004). Youth's peers become an increasing source of support as they navigate the transition from late childhood into adolescence. As young people move into adolescence they begin the process of separating themselves from their families and developing friendships with same-age peers outside their family network (Pecchioni, 2005), especially given the fact that during this developmental stage adolescents are spending an increasing amount of time at school with their peers engaged in extracurricular and leisure activities. Whereas for elementary school-age children parents maintain a central support role (Erwin, 1998), during the adolescent developmental period, perceived support from parents has been found to decline, while perceived support from peers increases (Erwin, 1998; Helsen, Vollebergh, & Meeus, 2000; La Greca, Bearman, & Moore, 2002).

While adolescents may still talk with their parents about such topics as school, they begin turning to their peers to discuss such intimate topics as dating, sexuality, and the sharing of secrets along with other personal experiences and problems (Janney & Snell, 2006; Johnson & Aries, 1983; Seiffge-Krenke, 1993; Seiffge-Krenke & Shulman,

1995). As friendship groups become an increasingly stable network for youth as they transition from childhood into adolescence, the friendship relationship may assume an important role in the provision of social support to adolescents during stressful life experiences (Savin-Williams & Berndt, 1990). Friendship relationships during adolescence often become a source of companionship, feedback, practical information, advice, material assistance and emotional support (Jaffe, 1998; Karcher et al., 2004). Fryxell and Kennedy (1995) suggest that peer support behaviors involve: communicating information regarding daily life events; providing emotional support when a peer needs consolation; helping peers to celebrate a positive event; helping peers to meet other people across social networks; providing material assistance, as in helping with homework; and assisting with decision making. Thus, youth can, and do, provide support for each other in a variety of ways.

Given that adolescents are likely to turn to their peers for a variety of reasons, it is possible and likely that they are sharing and supporting each other after the experience of a traumatic event. In fact, it may even be a youth's friends who are the first to notice that something has happened or is bothering him/her. Youth who have experienced a traumatic event may have a parent or caregiver who has also experienced the traumatic event, thus compromising the caregiver's ability to provide the emotional support that a youth may need (Jagodic & Kontac, 2002). Furthermore, parents may suffer from major mental or medical illnesses, or may be preoccupied with their own problems, thus preventing them from being able to provide care and support to their children (Gottlieb, 1991). Therefore, with parents being emotionally unavailable, a youth may instead turn

to his/her peers in search of someone who will listen and provide them with needed emotional support while processing the event (Figley, 1998; Joseph, 1999; Oswald et al., 1994).

The role of peer-provided social support has been highlighted in the literature on disclosure of abuse and confidants. In interviews and surveys, adolescents have suggested that the elements of trust, confidentiality, and having a personal relationship with someone were important factors that led to the disclosure of abuse, making friends a likely option for confiding in given the trust and confidentiality that is often available to youth within their friendship relationships (Jackson, 2002). Additionally, adolescents who have experienced dating violence have reported often seeking informal help from friends before seeking formal help from adults or the police, with many adolescents failing to tell any adults or formal helpers about their victimization at all (Ashley & Foshee, 2005; Jackson, 2002; Molidor & Tolman, 1998; Rose, Campbell, & Kub, 2000; J. M. Watson, Cascardi, & Avery-Leaf, 2001). Rosenthal, Feiring, and Taska (2003) found in a study of sexually abused youth that while young children reported relying on support from caregivers, adolescents reported gaining more support from their friends.

Additional research involving maltreated youth suggests that peers may serve an important supportive role for them (Bukowski, Newcomb, & Hartup, 1996; Ladd & Price, 1987). Especially when the maltreatment occurs at the hands of their parents or caregivers or when there is heightened stress in the family unit, children and adolescents may turn to their peers to confide their feelings and obtain a sense of safety and security (Bukowski et al., 1996). Research and clinical work has also found that many college-age rape victims turn first to their friends before, or even in place of, turning to a mental

health provider or the police (Ahrens & Campbell, 2000; Sharkin, Plageman, & Mangold, 2003). In fact, George, Winfield, and Blazer (1992) and Ullman (1996) found in their respective samples of college-age rape victims that only 2% to 20% of rape survivors ultimately disclosed their rape to either the police, a hospital, or a rape crisis center, in contrast to 59% to 91% of survivors who first (or only) told their friends about their rape. Moriarty (2000) also suggests that an adolescent who has experienced date rape is most likely to turn first to their peers to disclose their assault.

What is Currently Known about Peer Helpers

Despite the research discussed above suggesting that peers are indeed playing an important role in the provision of social support, little is actually known about their helping experience. One area of research that has explored the important role of peers to youth is research surrounding peer counseling in high schools and on college campuses. Peer counseling involves a formal supportive relationship that is formed between a youth and a same age peer counselor who performs limited counseling services under supervision of a qualified adult (Buck, 1977; McManus, 1982; Morey, Miller, Rosen, & Fulton, 1993). Peer counseling was developed in response to high school and college counselors' inability to meet the needs of all the students who were experiencing problems and difficulties, in addition to staff's belief that there were still some students who needed help but were not seeking it because of their reluctance to talk with an adult (Morey et al., 1993; Sharkin et al., 2003). Furthermore, peer counseling operates under the belief that a youth's peers may have a better understanding of the concerns and difficulties specific to youth, and therefore may have more credibility with a youth population, making it easier and more natural for youth to turn to a same-age peer rather

than their parents, a teacher, or a counselor (C. Perry, Klepp, Halper, Hawkins, & Murray, 1986). The majority of peer counseling programs have focused on utilizing trained peer counselors for the delivery of extra support to youth at risk (Gottlieb, 1991), with peer counselors providing assistance for youth in such domains as school and grade transitions and for youth at-risk of substance abuse or other risky behaviors (Morey et al., 1993).

Research involving the effects of peer counseling on the youth counselor has been conducted, but to date has only explored the effects of such experiences on self-concept and self-esteem (Hahn & LeCapitaine, 1990). Furthermore, peer counselors differ from informal supportive relationships among youth in that the youth counselors receive training and support from a supervising adult who can guide them in the provision of support and aide them when the need arises. Therefore, as noted before, little, if anything, is actually known about the effects of helping on youth who informally support their peers.

Current Study

In summary, as youth move through childhood into adolescence their peer groups become increasingly important sources of social support as they seek independence from their parents. As youth begin to lean on other youth during this separation and individuation process, they may be sharing with each other intimate details regarding their own lives, which might include details regarding traumatic experiences. However, while research suggests that youth may develop traumatic reactions as a result of being indirectly exposed to the traumatic reactions of a caregiver, no research to date has specifically evaluated the development of stress symptoms among youth who are exposed

to the traumatic experiences (i.e. rape, abuse, natural disasters, etc.) of their peers. It is important to explore exactly what information youth are indirectly exposed to as they seek to provide social support to their traumatized friends and how youth react after hearing such stories in order to determine how best to prepare youth to provide such informal support to their peers and how best to assist them if they should become indirectly traumatized as a result of their exposure.

Study Aims

The primary goal of this study was to explore the types of traumatic experiences disclosed to adolescent youth by their friends and their subsequent helping behaviors and reactions. Secondary goals of this study included an assessment of the validity of an adult measure of STS, the Secondary Trauma Scale, with an adolescent population and an exploration of several potential risk factors for the development of STS reactions.

Aim 1: Explore qualitatively the types of traumatic experiences adolescent youth are indirectly exposed to through their friends, their provision of social support, and their cognitive, behavioral, and emotional reactions to supporting a friend.

Aim 2: Examine the validity of the Secondary Trauma Scale with an adolescent population.

Hypothesis 2a: The Secondary Trauma Scale will be positively correlated with a known measure of traumatic reactions and emotional distress in youth.

Aim 3: Explore the relationships between gender and symptoms of STS.

Hypothesis 3a: Given the research suggesting that females report having closer, more intimate relationships with their girl friends than males do with their male friends (Buhrke & Fuqua, 1987; Fischer & Narus, 1981; Guerrero, Andersen, &

Afifi, 2007), and given potential differences in what females may disclose to their girl friends compared to what males may disclose to their male friends, it is hypothesized that females will report significantly higher mean level symptoms of STS than males as measured by the Secondary Trauma Scale.

Aim 4: Explore the relationship between several variables (e.g. age, youth's personal trauma history, time since first exposed to friend's trauma, positive and negative affect, closeness, and trauma type) and symptoms of STS.

METHOD

Design

This exploratory, descriptive, mixed-methods study used qualitative and quantitative design elements. In this study, the qualitative data elaborates and amplifies the quantitative data. In general, the qualitative, semi-structured interview questions asked youth to describe the details of what their friend disclosed to them, their reaction to what their friend disclosed, and what they did to help their friend. The quantitative data described youth according to age, gender, and ethnicity, as well as measuring STS and affective responses, youth's personal trauma history, interval of time since their friend's disclosure, and friendship intimacy. Through the process of synthesizing both the qualitative and quantitative data, it is believed that a fuller understanding of youth's provision of social support and their subsequent reactions in response to helping emerges.

Participants

Youth between the ages of 11 – 16 and their legal guardian were recruited for participation in this study (N = 66). This age range was utilized because it encapsulates the emerging adolescent and adolescent age period during which peer relationships become increasingly important and more time is spent by youth with their peers (Bukowski et al., 1996; Erwin, 1998; Gifford-Smith & Brownell, 2003). Youth and their legal guardians were recruited for participation through flyers posted at various locations

around the University of Denver and the Denver-metro area (Metro Denver Boys and Girls Clubs and Washington Park Recreational Center), local online newspapers (Denver Backpages), and via advertisement of the study on Craigslist, an online network featuring classified advertisements. Youth were also recruited from a local Christian youth group. Inclusion in the study required youth to be primarily English speaking and to have had the experience of helping a friend through a traumatic event in the past 12 months. Exclusion criteria included a suicide attempt, suicidal and/or self-harm statements, or hospitalization for psychiatric reasons in the past year. Five youth were screened and excluded from the final study sample because they had no experience of helping a friend through a traumatic event, while one youth's data was ultimately excluded because of malfunctioning audio equipment and the inability to transcribe their interview. Therefore, the final sample size for this study was 60, with 38 youth recruited from Craigslist, 12 youth recruited from a local Christian youth group, and 10 youth recruited from Metro Denver Boys and Girls Clubs (see Table 1). Participating youth and their legal guardian received monetary compensation ($20.00) for their participation.

The sample was 50.0% male and 50.0% female, and the mean age of the youth was 13.4 years (*SD* = 1.6). Legal guardians responded regarding their child's race/ethnicity, and the youth were reported to be of the following racial/ethnic backgrounds: 35.0% European American/Caucasian/White, 30.0% Multiracial/Multiethnic, 20.0% African American/Black, 6.7% Hispanic/Latino(a), 5.0% Native American/American Indian, and 3.3% Asian American. Compared to the demographics of Denver County, this study sample included higher percentages of

African American/Black, Native American/American Indian, and Multiracial/Multiethnic youth, and a lower percentage of European American/Caucasian/White and Hispanic/Latino(a) youth (U.S. Census Bureau, 2008).

Procedures

Legal guardians and youth interested in and eligible for the study were given the choice of coming in to the University of Denver or having a researcher come to a location convenient for them to participate. While specific data was not collected regarding location of study participation, qualitatively, most participation occurred at community locations such as libraries, coffee shops, and participant's homes rather than at the University of Denver. Consent and assent for participation were reviewed with both the parent and the adolescent and consent and assent forms were signed. Adolescents and their legal guardians were informed that data collected during the course of this study would be kept confidential, with the exception of information concerning child maltreatment, suicidality, or other imminent youth safety issues, which researchers were mandated to further explore and possibly report. During the consent process, the process for collecting data and assigning of an anonymous participant number in order to protect participant confidentiality was also explained. A consent quiz was administered to ensure complete understanding of the study. The study began only after the legal guardian consented and the youth assented to his/her voluntary participation.

Given the possibility that youth might disclose that a friend was currently being, or had been, abused or maltreated, and that the abuse had not been reported, the following steps were taken. Per communication with the DU IRB (Santiago, 2007), if the youth talked about a friend who had been, or was being, maltreated, and if the friend was

reasonably identifiable, then the researcher may have an obligation to report. During this study, while some youth did discuss the physical and sexual abuse of their friends, follow-up with legal guardians and the youth themselves found that such instances of abuse had in fact been reported, with either social services and/or police involvement resulting from the report. Furthermore, all youth participants were provided with appropriate information concerning available resources for their own use or so that the youth could then pass such information on to their friends should they have chosen to do so. All adolescents also received a self-care packet of information regarding stress and self-care strategies following their completion of the study.

Quantitative Data Collection. Following receipt of consent and assent, legal guardians completed the demographic information questions. Youth and legal guardians next completed the first half of the UCLA PTSD Index, which asked about the adolescent's trauma history. They completed this form separately and privately, unobserved by the researcher or research assistant. Once the parent and adolescent completed filling out the trauma history section of the UCLA PTSD Index, they placed the form in a sealed envelope labeled only with the randomly assigned participant number. Both envelopes remained sealed until identifying information linking a participant's name to their randomly assigned participant number was destroyed. This method of anonymously collecting trauma history information was utilized in order to minimize reporting risk since there was no way to connect participants' responses with their identities once the list connecting participants' names and their randomly assigned participant number was destroyed. This method has been used by the DePrince lab (2007) in their trauma research with youth to protect anonymity and to increase honest

reporting of trauma history while minimizing researchers' legal risk as mandated reporters of such experiences. Youth also completed a packet of research questionnaires following the completion of the semi-structured interview. Youth were asked to complete the questionnaires based on the specific incident of providing social support for the friend whose traumatic experience was discussed during the semi-structured interview.

Qualitative Data Collection. Qualitative data were gathered from youth participating in the semi-structured interview. Youth met privately with the researcher or research assistant for this portion of the study. Prior to beginning the interview, youth were asked by the researcher questions from the UCLA PTSD Index trauma history section about whether any of their friends had disclosed in the last year that they had experienced one of the events on the questionnaire and if that friend had talked with the youth and sought social support from him/her surrounding that experience. Youth were then asked to choose a single event from among all the events disclosed to them by their friends that they were willing to talk about with the researcher. It was this single incident and the corresponding friend around which the semi-structured interview was conducted. Interviews lasted approximately 10-15 minutes and were audio taped.

Measures

Measures were chosen based on their psychometric properties and appropriateness for use with youth 11-16 years of age (see Appendix A for copies of measures).

Demographic Questionnaire. This questionnaire asked parents to report the youth's age, gender, and ethnicity.

UCLA PTSD Index – Parent and Youth Versions. The UCLA PTSD Index is a questionnaire designed to measure youth's general exposure to traumatic events (first half of questionnaire) and their reactions and distress related to a specific traumatic event (second half of questionnaire). The first half of the UCLA PTSD Index was completed by both the youth's legal guardian and the youth themselves to document the youth's personal trauma history. For the purposes of this study, trauma history was operationalized as the average of the total number of traumatic events a youth has experienced as reported by both the youth and their legal guardian.

UCLA PTSD Index – Peer Version. Youth also completed a Peer Version of the UCLA PTSD Index. Youth were asked to complete the first half (i.e. the trauma history section) of the UCLA PTSD Index with the researcher in order to detail those traumatic experiences that have been disclosed to them by their friends in the last year, and to identify the disclosure by a friend that most impacted them and around which the semi-structured interview was then conducted. As an exploratory aspect of this study, youth's indirect exposure to a friend's experience of non-interpersonal, interpersonal, or community/other violence was examined. Non-interpersonal traumas were assessed by summing four items from the UCLA PTSD Index – Peer Version (i.e. being in earthquake; being in a disaster; being in a bad accident; and having painful and scary medical treatment). Interpersonal traumas were assessed by summing four items (i.e. being hit, punched, or kicked very hard at home; seeing a family member being hit punched or kicked very hard at home; having an adult or someone much older touch friend's private sexual body parts when friend did not want them to; and being raped). Community/Other Violence was assessed by summing four items (i.e. being in a place

where a war was going on around them; being beaten up, shot at or threatened in the community or at school; seeing someone being beaten up, shot at or threatened to be hurt badly in the community or at school; and suicide). While community violence is often conceptualized in the literature as an interpersonal trauma, the distinction was made between community violence and interpersonal trauma in this study in order to distinguish between violence and abuse that occurs within the context of an intimate relationship or family setting and violence and crime that occurs more generally in a community and/or school setting.

Secondary Trauma Scale. The Secondary Trauma Scale was originally developed by Motta, Hafeez, Sciancalepore, and Diaz (2001) to assess secondary trauma in adults. A youth version, the one used in this study, has been created but has yet to undergo psychometric evaluation. The youth version of the Secondary Trauma Scale contains 18-items which are answered using a 5-point scale ranging from 1 (Rarely/Never) to 5 (Very Often). Item scores are summed to create a Total Score. Higher scores on this scale indicate greater distress from secondary trauma. For the purposes of this study, youth were asked to respond to the items on the Secondary Trauma Scale based on their experience of hearing the story of, and supporting, a traumatized friend.

Trauma Symptom Checklist for Children - Abbreviated (TSCC-A). The TSCC-A (Briere, 1995) was completed by the youth. The TSCC-A is a 44-item self-report measure that evaluates the post-traumatic distress and related symptomatology in youth ages 8-16. The TSCC – A is similar to the full version of the TSCC, but makes no reference to sexual issues. For the purposes of this study, the T-score from the posttraumatic stress, anxiety, depression, anger, and dissociation subscales were utilized

to explore the general emotional response of the youth to hearing about their friend's traumatic experience. The TSCC – A was also utilized to evaluate the validity of the Secondary Trauma Scale with this population of youth. Of note, the TSCC – A is distinct from the Secondary Trauma Scale in that the reporting of symptoms on the TSCC – A is not anchored by a specific traumatic experience, in addition to the fact that the TSCC – A assesses for a wider range of psychopathology.

Positive and Negative Affect Schedule for Children (PANAS-C). The PANAS – C (D. Watson, Clark, & Tellegen, 1988) is a self-report measure that assesses youth's self-perceptions of positive and negative feelings. The PANAS was originally developed for use with an adult population. Youth in this study completed a version of the PANAS, the PANAS-C (Laurent et al., 1999), that was adapted for use with a child and adolescent population. On the PANAS-C, youth were asked to rate the extent to which they felt fifteen positive and fifteen negative emotions at the time of providing support to their friend (Past), as well as rating their current affective response after retelling what their friend had told them (Present). Higher scores on positive affect indicate more positive feelings, and higher scores on negative affect indicate more negative feelings. Items on the PANAS-C are written at a 4th grade reading level, and the measure utilizes a 5-point Likert scale ranging from 1 (Very Slightly or Not At All) to 5 (Extremely). Four total scores (i.e. past positive affect, present positive affect, past negative affect, and present negative affect) were used to explore the relationship between STS symptoms and the youth's level of emotionality upon first hearing and retelling their friend's traumatic experience.

Friendship Qualities Scale (FQS). The FQS (Bukowski, Hoza, & Boivin, 1994) measures a youth's perceived quality of their friendships with others. This 23-item measure, asks 5th-12th grade youth to rate how true each statement is about one particular friendship relationship. For the purposes of this study, youth were asked to answer each question based on their relationship with the traumatized friend for whom they provided support. Each item is answered using a 5-point scale ranging from 1 (Not True) to 5 (Really True). While five dimensions of a youth's relationship with their friend can be measured with this scale, only the total score from the Closeness subscale was utilized as an approximation of a youth's emotional proximity to their friend and to explore the relationship between emotional proximity and symptoms of STS. Higher scores on this subscale reflect higher levels of closeness.

Adolescent Questionnaire. The adolescent questionnaire was designed by the researcher. Two items from this questionnaire were ultimately utilized in this study. One question measured trauma severity and asked youth to rate how severe they perceived their friend's traumatic experience to be on a scale from 1 (Mildly Traumatic) to 5 (Very Severely Traumatic). This strategy has been used in previous research (Morris, Shakespeare-Finch, Rieck, & Newbery, 2005). A second question measuring time since first exposure to their friend's traumatic experience asked youth to note how long ago (in months) it was that their friend first told them about their traumatic experience.

Semi-Structured Interview Questions. All youth participated in a semi-structured interview with the primary researcher or research assistant. Based on the specific research questions for this study and considering research in the domain of trauma, violence, and PTSD, the interview questions were designed to elicit as much information

concerning such things as the details of the traumatic experience disclosed to them by their friend, the youth's relationship with their friend, their affective, cognitive and behavioral response to their friend's trauma, their helping behaviors, their perception of what happened to their friend, and their thoughts concerning their own vulnerability to future harm. The interview protocol was semi-structured, consisting of open-ended and closed-ended questions.

RESULTS

Quantitative Data Analysis

The Statistical Package for the Social Sciences (SPSS) data analysis program was used to analyze demographic data, to examine the validity of the Secondary Trauma Scale, to examine group differences between males and females and between youth exposed to non-interpersonal, interpersonal, or community/other violence, and to examine the relationship between age, trauma history, time since first exposed to their friend's trauma, emotionality, emotional proximity, and symptoms of STS. Effect sizes were used to examine the size of the effect on data reaching significance.

Qualitative Data Analysis

All tape-recorded data from the semi-structured interviews were transcribed verbatim. Once transcribed, the transcripts were subjected to content analysis using emergent coding per Auerbach and Silverstein (2003) and Rossman and Rallis (1998).

An individual and joint effort was made by the three members of the research team to consensually determine and define a set of the most common themes and repeating ideas from the transcripts. The research team consisted of one clinical psychology faculty member who is a trauma researcher, one doctoral student in clinical psychology, who is also a trauma researcher, and one undergraduate research assistant. First, transcripts were read separately by each member of the research team who, without the use of computer software, identified and sorted repeating ideas and themes from the

transcripts into composite categories. A repeating idea was defined as an idea expressed in relevant text by two or more research participants, while a theme was defined as an implicit idea or topic that a group of repeating ideas had in common (Auerbach & Silverstein, 2003). After separately developing categories of repeating ideas and themes, each member of the research team independently named their categories. The goal of naming categories of repeating ideas and themes was to capture the essence of each repeating idea or theme in "an accurate yet emotionally vivid way" (Auerbach & Silverstein, 2003, p. 60).

Once each research member had independently named their categories, the research team met as a group to review and consolidate their categories of repeating ideas and themes. Those categories that were the same across all research team members were automatically added to the master list. In those situations where there was disagreement and/or where a category was only created by one or two members of the research team, the category was discussed and refined, if necessary, until all members of the research team were in agreement about the inclusion or exclusion of the category in the master list. This process was continued until all members of the research team felt that there was a solid master list of repeating ideas and themes that accurately represented the narrative data.

Once the master list was created, each repeating idea and theme was defined so that the process of coding the transcripts could be somewhat operationalized. Repeating ideas and themes were defined by the primary researcher with the assistance of Merriam-Webster's Collegiate Dictionary (Merriam-Webster Editorial Staff, 2003) and the *DSM – IV – TR* (American Psychiatric Association, 2000). As a group, the research team went

over all definitions and arrived at a consensus regarding the suitability and accuracy of each definition. Changes to definitions were made as necessary. For definitions of repeating ideas and themes, please see Table 2.

Using the master list, a final coding manual was created that included the name of each repeating idea and theme, definitions of each term, key word indicators to help coders identify a repeating idea or theme in the transcripts, an example of each repeating idea or theme taken from the interview transcripts, and suggestions regarding where the concept might be found in the transcript (see Appendix B for the complete coding manual). Equipped with this coding manual, two members of the initial research team (the doctoral student and the undergraduate research assistant) coded 30 transcripts each for the presence (Yes) or absence (No) of each repeating idea and theme. The third member of the research team (the faculty member) served as a secondary coder who double coded 10 transcripts from each primary coder in order to prevent coding drift and to ensure the consistency of the primary coders' coding. Coder reliability was assessed by calculating each primary coder's percent agreement with the secondary coder's identification of a repeating idea and theme as present or absent. Percentage agreement was used as an estimate of reliability because the repeating ideas and themes being coded called for categorical "Yes/No" or "Presence/Absence" judgments by the coders (Boyatzis, 1998). Percentage agreement scores were calculated as the number of times of observation or coding in which the two coders agree divided by the number of possible observations, or instances, of coding (Boyatzis, 1998). In this study, the primary coders' agreement with the secondary coder ranged from 82% to 97%. According to Boyatzis (1998), scores of 70% or better are considered acceptable.

Qualitative Results

On average, it had been 5.37 months (*SD* = 4.28) since youth in this study had first been exposed to their friends' traumatic disclosures. Youth had subsequently talked with their friends about their experiences an average of 6.98 (*SD* = 12.69) times since the first incidents of disclosure. On a question measuring youth's perception of the severity of their friends' traumatic experiences, with "1" being "Mildly Traumatic" and "5" being "Very Severely Traumatic," the average rating by youth was 2.30 (*SD* = 1.12). That is, youth on average perceived their friend's traumatic experience as being Moderately Traumatic.

Youth in this study reported having friends disclose a wide variety of traumatic experiences to them in the past year, with the mean number of traumas that were disclosed to youth being 3.78. Table 3 lists the frequencies of all traumatic events disclosed to youth by their friends over the course of the past year. Briefly, 53.3% of youth had a friend disclose that they were in a bad car accident, 50.0% of youth had a friend disclose that they were beaten-up or attacked in their community and/or school, and 50.0% of youth had a friend disclose painful and scary medical treatment in a hospital.

Despite the fact that youth reported having multiple instances of supporting their friends, this study focused on a youth's experience of supporting one friend with one traumatic experience. Table 4 lists the frequencies of the traumatic events disclosed to youth by their friends that youth ultimately chose to focus on as part of this study.

Briefly, the largest percentage of youth chose to discuss a friend's disclosure of being beaten up in the community or at school (26.7%), being in a bad accident (26.7%), and being physically abused at home (13.3%).

Aim 1 of this study was to explore qualitatively youth's experience of providing social support to a traumatized friend. The process of emergent analysis discussed previously resulted in 39 categories of repeating ideas and themes. Table 5 presents a complete listing of the repeating ideas and themes by number and percentages of transcripts in which they were present. Given that it would be challenging to report all possible responses made by the youth during the course of the interviews, examples taken directly from transcripts that best encapsulate the commonly reported experiences of most youth are provided here.

Youth's Emotional/Behavioral Response. The most common emotional response that youth had to hearing about the traumatic experience of their friend was one of shock, with the majority of youth reporting this response (n = 46, 76.7%). While youth were in fact asked as part of the interview how surprised they were to hear about what happened to their friend, some youth did spontaneously talk about being shocked by what they heard. Youth reported being shocked about such things as the fact that what happened to their friend occurred unexpectedly. For example, after a friend talked with him about being caught in a wildfire, one youth said:

> I was shocked. I didn't see it coming. It was kind of crazy. I don't know. I don't get up every day and say, "Hmm, I think someone's gonna tell me that they got caught in a wildfire today," so yeah.

Shock also led youth to contemplate why something happened to their friend. Some youth reported contemplating why the perpetrator, or human beings in general, could do

what they did to their friend (n = 12, 20.0%). This appeared to be a particularly strong response in those youth who heard about their friend being physically and/or sexually abused. One girl whose friend was physically abused by her dad said:

> I was just like, wow, shock, this is really happening…So, I was thinking, well, like, why is this happening to her? I mean, cause pretty much a lot of bad things have happened to me, too, but, like, why does this happen to these people kind of thing.

Shock also seemed to coincide with an acute awareness of their friend's injury. A moderate amount of youth were preoccupied and/or aware of their friend's actual or perceived risk of pain, injury, or even death (n = 25, 41.7%). This response appeared to be most common among those youth who talked about a friend who was in a bad accident. For example, about a friend that was in a bad car accident, one youth focused on his friend's injury, "Well, I guess his body functions were more of sore and kinda, like, tired and beaten down…He was just slower cause he broke those ribs so he was just kind of hunched." Another youth who was shocked at the severity of a friend's injuries, also resulting from a bad car accident, said, "I was shocked, that, it was, like, wow, cause he was in the hospital for, like, two or three days, so." Additionally, youth whose friend's were abused also showed an awareness of their friend's physical and emotional pain. For example, about a physically abused friend, one girl said, "I was surprised about just, like, all the marks. Her mom really gave her bruises."

In addition to shock and an awareness of their friend's pain, youth also reported sadness (n = 30, 50.0%), fear (n = 23, 38.3%), and worry (n = 16, 26.7%) in response to hearing about their friend's traumatic experience. Youth commonly expressed their sadness simply as, "I felt sad for him/her" or "I felt really bad for him/her." For youth

who responded with fear to their friend's traumatic experience, they talked of being scared or frightened of a range of factors. For example, some youth reported being afraid that what happened to their friend would happen to them. One youth whose friend talked with her about being hit by her step-dad said, "I was scared and worried. Like, I don't want a step-father. I don't ever want a step-father. I won't wanna sleep over."

Some youth experienced a type of fear best described as worry or preoccupation with the present and future safety of their friend, often because they were uncertain if the traumatic experience would happen again. A youth whose friend was involved in a gang gunfight said, "I guess I was scared, well not, well, I guess I was scared that, like, they might still be around, like they'd come around and do it again." One girl discussed her fear for her friend who had been physically and sexually abused, saying, "I was scared for her. I mean, I was, like, really, really scared for her. I didn't want anything to happen to her anymore. I didn't want them to beat her anymore." Yet another girl expressed her similar fear for her friend who had been hit regularly by her dad:

> I kinda got scared cause she was, like, supposed to go home that night and she didn't want to go home cause she thought she was gonna be in trouble. Like, I got really scared for her cause, like, she just got done telling me all the stories that have happened to her and I was, like, oh my goodness, what if this happens tonight. But it didn't.

During the course of the interviews, some youth provided responses that were overly focused on their own personal experiences, thoughts, and feelings (n = 15, 25.0%), even when questioned specifically about their friends' experiences. That is, some youth showed a tendency to over-personalize what happened to their friend in that they spent more time talking about how they would have felt or acted if what happened to their

friend had happened to them, or what they would have done differently than their friend. An example of such a response comes from a girl who talked about her friend's rape:

> Like, I was like, "Oh my gosh, this could happen to me." I was thinking more about me and saying like, "Oh my gosh, has it ever happened to me, is it gonna happen to me." Yeah, stuff like that.

While some youth appeared to overly focus on their own experiences, other youth appeared to be especially empathic and attuned to the thoughts, feelings, and experience of their friends (n = 13, 21.7%). One example that highlights this empathic response comes from a girl who supported her friend after she was in a bad car accident. She stated, "I was thinking about how she must have felt. I was thinking how that must have really hurt and that's scary probably."

When asked if they wanted to hear what their peer was telling them, many youth responded that they did because they were curious and interested in what their friend had to say (n = 25, 41.7%). This curiosity seemed to stem from the fact that youth had never heard something like it before, or because the story sounded exciting. About listening to the story of a friend's bad car accident, one youth said, "Well, I mean, it's never a good thought to think of your friends getting hurt, but it was definitely an interesting story, something worth hearing." Another boy said about hearing from a friend how he lost a loved one to suicide, "I was curious about, like, what had happened, but I'm still, like, in disbelief. So, I was still curious to, like, see what he had to say, then talk to him about it."

A small subset of youth reported responding to their friends' experiences with humor (n = 10, 16.7%) and anger (n = 6, 10.0%). For those youth who reported laughing and joking in response to their friend's story, it seems that many did so because they were

copying the behavioral and emotional response of their friend. For example, one youth said about how he responded when his friend told him about cracking his head open in the pool, "I was kinda laughing along with him. He thought it was funny, so I'm like, hey, you know, it's funny to him so I guess it's funny to me." Among those youth who were angry, it appears that their anger was primarily directed at the perpetrator of violence. One girl expressed her anger at her friend's dad who had beaten her:

> Well, I was pretty pissed at her dad. I was like, "Well, the next time that happens you need to come to my house. I don't care if, like, your parents say you can't, you're just walking out the door and coming to my house," type of thing.

Remaining emotional and behavioral responses of youth included minimizing their friend's experience (n = 8, 13.3%; "I was not surprised because it was not anything out of the ordinary."), being relieved that their friend was not hurt (n = 7, 11.7%; "I was very thankful that they weren't actually shot."), and having no emotions at all about their friend's experience (n = 7, 11.7%; "I don't even know what I was feeling. I don't think I was feeling anything about it, really.").

Youth's Traumatic Responses. Looking specifically at responses common to individuals in the wake of exposure to traumatic and stressful experiences, 25.5% (n = 15) of youth reported symptoms of hypervigilance and avoidance, while 8.3% (n = 5) of youth reported intrusive thoughts about their friend's experience. Youth reported being more aware and alert and taking additional safety precautions in response to hearing about their friend's experience, seemingly in efforts to not only increase their control over the situation, but also to minimize the chances of their friends' traumatic experiences happening to them, too. After a friend told him about a serious bike accident, one youth reported, "Um, I kinda stopped riding my bike. I haven't rode my

bike in a long time since that happened because I didn't want what happened to him to happen to me." Another youth talked about her avoidance of dogs since a friend told her about being in a serious dog attack that left her with 28 stitches in her lip:

> I stay away from dogs. I stay away from dogs. I'm so terrified of dogs. And, you know, it's so funny, even though she got bit by a dog, if we were walking down the street, you see a dog, and I say, "You wanna turn around?" And she goes, "No." And I'm terrified.

Avoidance of people, places, and situations related to their friends' traumatic experiences was also a frequent response. About the chance of running into a friend's physically abusive step-dad who had since left the family, one youth said, "I was kinda, like, shocked, I was kinda scared. I didn't really want to be at her house…I didn't want to be there…My skin kinda got like goose bumps cause it was creepy…Yeah, so, it was scary." One girl reported avoiding a location that was the site of a serious fist fight witnessed by her friend, "I just thought, oh, you know, that bus stop might be pretty dangerous, so not a place I want to visit anytime soon, so." Yet another girl discussed her avoidance of parties after her friend was standing next to a boy who was shot and killed and was almost shot herself:

> They would always ask me if I still wanted to go to a party and I was like, oh dang, not anymore. I just refused to go to parties, just didn't want to go out, like, with any gang violence or anything, cause it was over a gang.

With regards to intrusive thoughts, some youth reported experiencing visual imagery of what they had heard, while others reported having trouble forgetting about what their friend shared with them, with memories of their disclosure lingering in the back of their mind. About a friend's rape one girl reported, "I couldn't stop thinking about it at first, I couldn't stop thinking about it." Another youth whose friend fell off a roof badly

breaking his leg reported that after his friend told him what happened, he was, "Imagining what he was saying and stuff, what happened."

Youth's Helping Behaviors. What did youth do to help or support their friend? The most common response by youth to this question was that they listened (n = 28, 46.7%), primarily expressed by the response, "I just listened." Some youth reported that their friend had no one else to turn to, and, that therefore, the act of listening to their friend allowed the cathartic release of something that was trapped and weighing on their friend's mind when they had no where else to turn (Emphasis on Catharsis, n = 21, 35.0%). For instance, about a friend involved in gang violence, one girl reported:

> I thought it would help her to, um, get it out and have somebody to come to about it…Cause her mom doesn't like her that much and her mom lectures her about it and makes her feel worse about it and I think that it is important for me to listen to her.

One boy talked about the importance of letting his friend express his feelings about being jumped by a gang:

> That he, that he just expressed himself, know what I'm sayin, that he got it out there, that he got to let all his feelings out, so he didn't have to just keep running that scenario over in his mind, how he could have did things different.

Other helping behaviors utilized by youth included heartening, which involved giving words of encouragement, strength, and hope (n = 23, 38.3%) and giving advice to their friend (n = 22, 36.7%). In order to support her friend who had just survived a hurricane, one girl provided words of comfort, stating, "I just, like, talked to her and told her that, like, she was safe and stuff." Another girl said that she gave advice to her friend who had been hit by her mother, "Ummm, I just talked to her when she was angry and gave her advice to stay home and avoid your mom like I said before and just keep low."

With regards to whether youth felt prepared to help their peers, 38.3% (n = 23) reported feeling competent, while 28.3% (n = 17) reported feeling powerless and helpless in providing support. One boy said about his ability to help his friend through his difficult experience:

> Oh yeah, I feel like I'm prepared to help anybody. Especially with my mom, with what, she worked, she worked with, like, domestic violence victims, and kids sometimes, too, at her last job. So, she talked to me about a whole bunch of stuff like that.

Other youth who reported feeling competent in helping their friend often described themselves as being the type of person who their friend's always turn to for help because they are good at helping others with their problems. For example, one girl who had supported her friend who had been beat by her dad said:

> Like, I've had friends, like, in the past who have had experiences like this and, like, um, this is why a lot of people are my friends. I'm really popular at school because, like, everybody comes to me, like, for their problems, like how to solve them because they know I actually listened to what they had to say and stuff like that, so.

For those youth who reported feeling powerless, many reported that they did not know what to do because they were too young or because they had never been in a similar situation before; That is, it was their first time helping a friend with a certain kind of problem. About a friend who witnessed frequent and severe gang violence, one youth said that she was not prepared to help her friend because, "I'm not used to having friends that are around that" Another girl reported that she felt ill-equipped and unprepared to help her friend deal with her experience of date rape:

> I had no idea what to do…because I hadn't even thought about it. Like, it didn't even occur to me that could happen to my friend or anyone I knew. It happened to, like, seniors, but I was a sophomore…even now I still don't know what I should do, what I would have done, could've, should've done. I don't even know.

Only a small subset of youth reported relying on prayer and religion to help their peer (*n* = 6, 10.0%; "I prayed for him."), seeking revenge for their peer (*n* = 5, 8.3%; "I couldn't believe that they did that to my homeboy and he could have died. I just said, 'We should find them.'"), wishing that they had been their to help their friend and prevent what happened (*n* = 4, 6.7%; "I'd probably try to change that night around so nothin', so nothin' be, so everything could be crystal clear, just no fightin', no nothin'."), and providing physical comfort, such as hugs, for their friend (*n* = 4, 6.7%, "Um, I just held her a lot cause she was crying and she was hurting and I didn't like to see her sad").

Youth's Process of Disclosure. Just like youth's friends turned to them for help, youth often turned to others for help with their friend's disclosure, too. Some youth reported that they turned to adults or other friends in their life in order to seek advice and receive social support for what they had heard from their friend (*n* = 19, 31.7%). Youth who turned to others for social support talked about how they needed advice from others on how to help their friend or because they needed someone to turn to in order to process the content of what they heard along with their subsequent emotions. One girl turned to her friends for support after hearing that one of her other friends had been physically abused, stating, "We just talked about it. Umm, just like how we felt about it and just hope that our parents never do it to us." Another girl talked to her aunt about her friend's date rape experience, "I think I talked to my aunt. Yeah, I talked to her. Yeah, it helped me to, like, organize my thoughts and stuff."

Other youth chose to disclose what they heard from their friend to an adult because they felt an adult needed to know about it and stop what had happened, or was

happening, to their friend (n = 5, 8.3%). This response was perhaps most common among youth who had a friend disclose that they had been, or were being, abused. For some of these youth who ultimately disclosed abuse to an adult, many struggled with not wanting to tell anyone about what happened because their friend told them it was a secret and that they were not to tell, or because they themselves felt like they should not violate their friend's confidentiality and trust. This struggle between telling an adult and keeping a friend's secret is well expressed by a girl whose friend had told her that she was being sexually abused:

> She was uncomfortable, like, she, cause she thought that I was gonna tell somebody and I told her that I was gonna keep it a secret…She started crying and she didn't feel very comfortable and so I told her I would promise I won't tell anybody, I promise I won't tell anybody. I'll keep it a secret. I'll keep it a secret. I promise I won't tell anybody…I was, like, listening at, to her explain. And, like, when she started crying, I said, "It's okay. I won't tell anybody. You, your secret's safe with me. I won't, I won't, I'll keep it to me and you, me and you…I was like, "Oh, I feel sorry for her, man." I feel like I, we had to say something. We, I had to say something. But, yeah, it was peer pressure to not tell anybody anything, but I was about to explode. But, I had to keep it to myself a little while longer, and then I told.

A third group of youth reported that they did not turn to anyone for help and did not share their friend's experience with anyone else, emphasizing the confidentiality and privacy of what their friend disclosed to them (n = 26, 43.3%). About telling other people about a friend's rape, one girl said, "It's sorta her business and it would be wrong for me to say that, 'Oh my gosh, she got raped and she had a miscarriage.' Like, that would be wrong for me to do that, so." Another girl said that even though the police eventually found out about her friend being hit by her dad, she did not tell anyone else because:

> Like, it's their personal problem. I shouldn't be, like, opening my mouth to everybody. I mean, I don't wanna, like, if I had a problem and I tell one person, I don't want them going around saying, "Oh, this is what's up with (name)."

Effects of Experience on Youth. Youth were asked about changes in their views of themselves and the world and whether or not they felt that what happened to their friend could happen to them in the future. Some youth's views on the world changed as a result of learning about the traumatic experience of their friend in that while they previously saw the world as a meaningful and safe place, they now saw the world as a "mean and cruel" place where things were "crazy" and unpredictable. This shattered assumption of the world as a meaningful place was reported by 23.3% (n = 14) of youth. For one girl, this change in seeing the world as a safe place occurred after her friend talked with her about being raped, "Like, I always thought I was, like, 'Yay, safe world.' But when it happens to, like, someone you know, it could be, like, anyone. I kinda, like, I guess maybe, like don't trust many people or trust guys."

Youth also reported changes in their feelings of vulnerability in the world after hearing about their friends' traumatic experiences. Some youth reported that while they used to think that bad things would not happen to them, they now felt less secure and more susceptible to harm at the hands of others. This shattered assumption of invulnerability was voiced by 18.3% (n = 11) of the youth. Youth discussed such things as an increased awareness of how vulnerable they really were in their everyday life. For example, after hearing about a friend who had been jumped by a gang in his neighborhood, one boy said, "Now I think of myself as anything can happen. I used to think of myself like I was Hercules or something, but now I think, like, anything can happen, so I gotta be aware."

Coinciding with youths' shattered assumptions of invulnerability and the world as a meaningful place were responses highlighting an external locus of control (n = 25, 41.7%) and youth's feelings of having a lack of control over things that could happen to them in the future. For many youth, this external locus of control was highlighted by the phrase, "anything can happen," particularly because youth felt like they could not control the actions of others. One girl said that it was possible that she could be in a bad car accident in the future, like her friend was, because, "There's a lot of crazy people out there…Like, you could just be, like, driving and then get hit or something like that."

Some youth, however, maintained that the likelihood of what happened to their friend happening to them in the future was minimal because of things that they would do, or different circumstances in their own life, that would prevent it from happening. This internal locus of control was voiced by 55.0% (n = 33) of youth. For example, one youth said that it was not likely that someone would threaten them on the street with a baseball bat, like what happened to her friend, because, "I'd probably, like, threaten them back or something. I'd probably find out about it beforehand." Likewise, another girl reported that her chances of being raped like her friend were minimal because, "I mean, I just won't, I just, I know I would never put myself in that situation."

For some youth, hearing about their friend's traumatic experience simply confirmed their already existing thoughts about human nature, the world, and how the world works (n = 19, 31.7%). In these instances, youth reported no change in their beliefs or assumptions because they already assumed the world was a dangerous place with war, fighting, and bad things happening to people. A friend's experience of being physically abused confirmed what one youth previously thought about the world,

"There's crazy people everywhere you go, and that's not gonna change anything. Nothing will change that, so that, yeah, it doesn't change the way I view it. I already knew that there was psychos." Yet another example comes from a girl whose friend talked with her about her experience of being brutally attacked at school by another student:

> I've been through so many, like, little programs showing, like, about how cruel the world is, I mean, for like people of color and racism and hate crimes and all this other stuff. I already knew the world can suck at times, so it didn't really change.

A small percentage of youth reported that hearing about the traumatic experience of their friend led them to become more appreciative of their relationships and the good things in their lives (n = 4, 6.7%). After hearing about a friend's tragic car accident that left her paralyzed, one boy said:

> Um, I don't know, I just got a new perspective on just, like, life, and I just appreciate everything more and then I just talk to my friends more. I don't know…I was just, I was just living life with a new intention, I guess, or perspective. I don't know, I just thought about stuff different, yeah.

The final question of the interview asked youth if how they felt at that present moment was the same as how they felt when their friend first told them about their experience. In responding to this question, youth generally fell into two categories, those whose emotional reactions had lessened with the passage of time (n = 20, 33.3%), and those who were still struggling with some negative emotions (n = 12, 20.0%). An example of unresolved negative emotions comes from one girl whose friend talked with her about being physically abused:

> I'm still feeling the hurt because I haven't talked to her since last year at the end of the school year, the last day of school, and I haven't talked to her since, so just thinking about, like, what's going on now with her and is she okay and stuff like

> that. I'm still like, "Oh, I'm worried about her, is she gonna be okay tonight, is she gonna be okay tomorrow," stuff like that.

On the other hand, an example of the lessening of negative reactions over time comes from a boy whose friend was in a gang fight. About his feelings now he said, "Well, now I'm calmed down cause it's been awhile since this has happened and then I was just, like, in shock and worried." Similarly, a girl who finished talking about her friend's brutal attack by a student at school said, "I was shocked then, and now I'm kinda, like, I could just tell the story and it doesn't affect me anymore."

Friendship. A final category of youth responses arose in reply to a question asking youth what the most important thing was about their friends talking with them about what happened. The most common responses that were voiced by youth revolved around qualities of the friendship relationship. Youth reported that it was important that their friends trusted them enough to tell them about what happened (n = 15, 25.0%). One girl reported that when her friend told her about her date rape experience, "It made me feel like she could trust me. Like, I knew she could trust me, but trust me with, like, life changing, like, situations or whatever." Similarly, one girl said about her friend telling her about being hit at home:

> I don't know, like, me and her are pretty close, so, I mean, I'm like her best friend, like, we're best friends at this school. Like, I already know that we're, like, the best friends at the school, so she comes to me for everything. Lunch money, stuff like that. So, it kinda, like, to me, it, like, symbolized that, wow, she really trusts me and she can open up to me more than she probably does with her family type of thing.

Youth also discussed how a distinguishing quality of friendship is being there for each other and talking about and helping each other with their problems (i.e. reciprocity,

n = 11, 18.3%). For example, one youth said about his friend sharing his experience with him, "That's why we're friends, we share stuff about each other," while another youth noted, "I was prepared to help her because she would have helped me." Thus, these examples highlight that being there for their friends, being sensitive to their needs, and earning, and maintaining, their trust are considered by many youth to be salient aspects of friendship relationships, and ones that youth sought to honor and uphold through their process of supporting their traumatized friends.

Quantitative Results

The quantitative portion of this study examines several variables. Therefore, it is important to note the possibility of an inflated Type I error rate due to multiple t-tests, ANOVAs, and correlations. While a Bonferroni-corrected α would typically be utilized to correct for the number of post-hoc comparisons, given the exploratory nature of most of the aims of this study, the conventional significance level ($p < .05$) was used for interpreting results. Therefore, it should be recognized that this may in fact represent a liberal evaluation of the findings.

Descriptive Statistics. All outcome variables were checked for outliers and normality. There were no significant outliers. The distributions of all measures were within acceptable levels of normalcy based on standards of skew and kurtosis, therefore transformations were not required. Table 6 presents means, standard deviations, ranges, and reliabilities of outcome variables. The reliability analyses included an evaluation of the internal consistency of the scales and subscales of the Secondary Trauma Scale, TSCC, PANAS-C, and FQS. Alphas for these measures ranged from .75 to .97.

Primary Analyses

The major quantitative aims of the study were explored with the statistical procedures outlined below. Aim 2 examines the validity of the Secondary Trauma Scale with a youth population. Aim 3 explores the relationship between gender and symptoms of secondary traumatic stress (STS). Several exploratory analyses were also performed. These analyses will be presented below under the section *Exploratory Analyses*.

Aim 2: Secondary Trauma Scale. Analysis of the Secondary Trauma Scale evaluated the internal consistency of the measure and its convergent validity with a known measure of traumatic stress reactions in children and adolescents, the TSCC. For the Secondary Trauma Scale, an alpha coefficient of .93 was found. Furthermore, the Secondary Trauma Scale was positively and significantly correlated with the posttraumatic stress ($r = .44$, $p < .01$), depression ($r = .38$, $p < .01$), anger ($r = .32$, $p < .05$), and anxiety ($r = .45$, $p < .01$) subscales of the TSCC. Table 7 displays the Pearson's Correlations between the Secondary Trauma Scale and the subscales of the TSCC.

Aim 3: Gender. Independent-samples t-tests were performed between males and females to determine if the two groups differed significantly on symptoms of STS as measured by the Secondary Trauma Scale and symptoms of general traumatic stress as measured by the TSCC. Table 8 shows the means, standard deviations, and effect sizes for the dependent variables of interest for both groups. Analyses indicate that there were no significant differences between males ($M = 28.37$, $SD = 11.59$) and females ($M = 30.57$, $SD = 13.65$) on symptoms of STS as measured by the Secondary Trauma Scale, $t(58) = -.67$, $p = .41$.

With regards to general symptoms of traumatic stress, analyses indicate that, in general, females reported significantly more symptoms than males. More specifically:

- Females had higher levels of anxiety (M = 6.53, SD = 4.02) than males (M = 3.60, SD = 2.92), $t(58) = -3.23$, $p < .01$ with a large effect size (Cohen's d = .83).
- Females had higher levels of depression (M = 7.03, SD = 3.15) than males (M = 4.33, SD = 3.49), $t(58) = -3.15$, $p < .01$ with a large effect size (Cohen's d = .93).
- Females had higher levels of anger (M = 8.03, SD = 4.06) than males (M = 5.13, SD = 4.14), $t(58) = -2.74$, $p < .01$ with a medium effect size (Cohen's d = .71).
- Females had more symptoms of posttraumatic stress (M = 9.63, SD = 5.30) than males (M = 5.47, SD = 4.48), $t(58) = -3.29$, $p < .01$ with a large effect size (Cohen's d = .85).
- Females experienced more dissociative symptoms (M = 9.57, SD = 4.64) than males (M = 6.47, SD = 5.23), $t(58) = -2.43$, $p < .05$, with a medium effect size (Cohen's d = .63).

Exploratory Analyses

Given that little is known about the effects on youth of providing social support for a friend who has had a traumatic experience, the following additional exploratory analyses were conducted in order to investigate the relationship between several variables (i.e. age, youth's own trauma history, time since first exposure, positive and negative affect, emotional proximity, and type of peer trauma) and symptoms of STS. Exploratory

analyses also examined group differences (gender: male vs. female; peer trauma type: noninterpersonal vs. interpersonal vs. community/other violence) on the repeating ideas/themes that arose from the qualitative emergent analysis. For all exploratory correlation analyses, preliminary analyses were performed to ensure no violation of the assumptions of normality, linearity, and homoscedasticity. Furthermore, for all exploratory ANOVA analyses, preliminary analyses were conducted to ensure that there were no violations of the assumptions of normality, linearity, homogeneity of variance, and homogeneity of regression slopes.

Age. Correlations examined the relationship between age, symptoms of STS (as measured by the Secondary Trauma Scale), and symptoms of general traumatic stress (as measured by the TSCC). Age was not significantly associated with symptoms of STS or general traumatic stress (Table 9).

Youth's Own Trauma History. Correlations examined the relationship between youth's own trauma history, symptoms of STS, and symptoms of general traumatic stress. Personal trauma history was not significantly associated with symptoms of STS or general traumatic stress (Table 9).

Time Since First Exposure. Correlations examined the relationship between time since a youth was first exposed to their friend's traumatic experience (measured in months), symptoms of STS, and symptoms of general traumatic stress. Time since first exposure was not significantly associated with symptoms of STS or general traumatic stress (Table 9).

Negative Affect. Correlations examined the relationship between negative affect at the time of first hearing about a peer's traumatic experience (as measured by the

PANAS – C, Past Version), symptoms of STS, and symptoms of general traumatic stress. There was a significant correlation between past negative affect and symptoms of STS ($r = .53$, $p < .01$), depression ($r = .40$, $p < .01$), anger ($r = .27$, $p < .05$), and posttraumatic stress ($r = .29$, $p < .05$), with high levels of past negative affect associated with high levels of these symptoms (Table 9).

Correlations also examined the relationship between negative affect during the youth's retelling of their friend's traumatic experience at the time of the study (as measured by the PANAS – C, Present Version), symptoms of STS, and symptoms of general traumatic stress. There was also a significant correlation between present negative affect and symptoms of STS ($r = .58$, $p < .01$), depression ($r = .30$, $p < .05$), and anger ($r = .26$, $p < .05$), with high levels of present negative affect associated with high levels of these symptoms (Table 9).

Positive Affect. Correlations examined the relationship between past and present positive affect, symptoms of STS, and symptoms of general traumatic stress. Past positive affect was significantly correlated with symptoms of STS ($r = .29$, $p < .05$), anxiety ($r = .26$, $p < .05$), and posttraumatic stress ($r = .26$, $p < .05$), with high levels of past positive affect associated with high levels of these symptoms. Present positive affect was significantly correlated with symptoms of STS ($r = .28$, $p < .05$), with high levels of present positive affect associated with high levels of symptoms of STS. Present positive affect was not significantly correlated with symptoms of general traumatic stress (Table 9).

Emotional Proximity. Correlations examined the relationship between youth's level of intimacy with their friends (as measured by the Closeness Subscale of the FQS),

symptoms of STS, and symptoms of general traumatic stress. Closeness was not significantly associated with symptoms of STS or general traumatic stress (Table 9).

Trauma Type. Based on the type of traumatic experience disclosed by their friend, youth fell into three main categories: Those who were indirectly exposed to a friend's noninterpersonal trauma (n = 19, 31.7%), those who were indirectly exposed to a friend's interpersonal trauma (n = 17, 28.3%), and those who were indirectly exposed to a friend's experience of community/other violence (n = 24, 40.0%).

A one-way between groups analysis of variance was conducted exploring the impact of youth's indirect exposure to specific types of traumatic experiences on levels of symptoms of STS as measured by the Secondary Trauma Scale (Table 10). There was a statistically significant difference at the $p < .05$ level in STS scores as measured by the Secondary Trauma Scale for the three trauma groups, $F(2, 57) = 3.81$, $p = .04$. The actual difference in mean scores was moderate, with an effect size of .11, calculated using eta squared. Post-hoc comparisons using Tukey HSD test indicated that the mean STS score for youth indirectly exposed to a friend's interpersonal trauma (M = 34.82, SD = 14.24) was significantly higher than the mean STS score for youth indirectly exposed to a friend's noninterpersonal trauma (M = 24.16, SD = 9.13). Youth with indirect exposure to community/other violence (M = 29.88, SD = 12.50) did not differ significantly on symptoms of STS from either the interpersonal or noninterpersonal exposure groups.

A one-way between groups analysis of variance was also conducted exploring the impact of indirect exposure to specific types of traumatic experiences on levels of symptoms of general traumatic stress, namely, anxiety, depression, anger, posttraumatic stress, and dissociation, as measured by the TSCC (Table 10). Youth exposed indirectly

to a friend's noninterpersonal, interpersonal, or community/other violence did not differ significantly from each other on any of these symptoms of general traumatic stress.

Repeating Ideas and Themes: Group Differences. Males and females and the indirect trauma exposure groups were compared for differences on the repeating ideas and themes that emerged from the qualitative analysis. First, chi-square tests of independence were performed to examine the relationship between gender and the repeating ideas/themes. Chi-square tests revealed that gender was associated with advising ($\chi^2 = 5.81$, $p < .05$), an emphasis on catharsis ($\chi^2 = 4.69$, $p < .05$), and a shattered assumption of the world as a meaningful place ($\chi^2 = 4.57$, $p < .05$). More specifically:

- A higher percentage of females (53.3%) than males (20.0%) reported giving advice to their friend.
- A higher percentage of females (50.0%) than males (20.0%) emphasized the importance of catharsis for their friend.
- A higher percentage of females (36.7%) than males (10.0%) reported having a shattered assumption of the world as a meaningful place.

Secondly, chi-square tests of independence were performed to examine the association between type of trauma disclosed by their friends (noninterpersonal, interpersonal, or community/other violence) and the repeating ideas/themes. Chi-square tests revealed that trauma type was associated with a sadness response ($\chi^2 = 11.55$, $p < .01$), awareness of pain/injury ($\chi^2 = 6.36$, $p < .05$), heartening ($\chi^2 = 13.70$, $p < .01$), emphasis on catharsis ($\chi^2 = 7.88$, $p < .05$), and confidentiality ($\chi^2 = 9.01$, $p < .05$). More specifically:

- A higher percentage of youth exposed to a friend's interpersonal trauma (82.4%) had a sadness response compared to those exposed to either a friend's community/other violence (45.8%) or a friend's noninterpersonal (26.3%) experiences.
- A higher percentage of youth exposed to a friend's noninterpersonal trauma (63.2%) focused on their friend's pain or injury compared to those exposed to either a friend's interpersonal (41.2%) or community/other violence (25.0%) experience.
- A higher percentage of youth exposed to a friend's interpersonal trauma (70.6%) used heartening as a helping behavior compared to those exposed to either a friend's community/other violence (37.5%) or a friend's noninterpersonal (10.5%) experiences.
- A higher percentage of youth exposed to a friend's interpersonal trauma (52.9%) emphasized catharsis for their friend compared to youth exposed to either a friend's community/other violence (41.7%) or a friend's noninterpersonal (10.5%) experiences.
- A higher percentage of youth exposed to a friend's interpersonal trauma (70.6%) reported the importance of keeping their friend's disclosure confidential compared to those exposed to either a friend's community/other violence (41.7%) or a friend's noninterpersonal (21.1%) experiences.

Summary of Findings. A brief summary of all quantitative findings is outlined in Table 11.

DISCUSSION

Across the span of adolescence friends take on increasing importance in the development and lives of youth. Furthermore, as youth begin to lean on other youth during this developmental time period, they may be turning to each other for support surrounding a variety of challenges inherent in adolescence, such as academic difficulties, peer and romantic relationship difficulties, and problems with parents and family. Among the topics of adolescent conversations, youth may also be sharing with each other details regarding traumatic experiences. With that in mind, this study is the first of its kind to explore not only what types of traumatic experiences youth are disclosing to their friends, but also to explore the development of STS reactions in youth who support their friends through traumatic experiences. This study quantitatively and qualitatively examined the nature and scope of youth's support behaviors and the effects of providing support on youth. Overall, major contributions of this study include: 1) The preliminary validation of the Secondary Trauma Scale for use with an adolescent population, 2) The finding that females were found to be more symptomatic than males in terms of general traumatic distress symptoms, and 3) The finding that youth indirectly exposed to a friend's interpersonal trauma were found to have more symptoms of STS compared to youth indirectly exposed to a friend's noninterpersonal trauma.

The following discussion begins with a summary and commentary on the evaluation of the Secondary Trauma Scale and the qualitative findings. Secondly,

between group differences on measures of STS and general traumatic stress are addressed. Thirdly, the relationship between several variables of interest and the development of symptoms are discussed. Lastly, strengths and limitations of the study, practical implications, and future directions are considered.

Validity of the Secondary Trauma Scale. While the phenomenon of secondary trauma has been studied with a variety of adults primarily in the mental health, medical, and disaster relief professions, there still remains a paucity of methods for assessing the experience and symptoms of STS. In order to rectify this, Motta and colleagues developed the Secondary Trauma Questionnaire (Motta et al., 1999), the Modified Secondary Trauma Questionnaire (Motta et al., 2001), and the most recent version, the Secondary Trauma Scale (Motta et al., 2004). However, all versions of this scale were initially created to assess secondary trauma in adults. To this date, no measures exist to assess symptoms of STS in children or adolescents. Therefore, one of the purposes of this study was to begin this exploration of the utility and validity of the Secondary Trauma Scale for use with an adolescent population.

First taking a look at the utility of the Secondary Trauma Scale, the scale possesses several advantages, including the brevity of the measure, its ease of administration, and its utility for screening youth for symptoms associated with a specific experience. Next, addressing the validity of the scale, in this study with adolescents between the ages of 11 and 16, the Secondary Trauma Scale showed solid psychometric properties. The measure showed good internal consistency ($\alpha = 0.93$), a finding that is similar to what was found in prior studies of the original scale with college student and mental health worker samples, where internal consistency ranged from 0.75 to 0.88,

respectively (Motta et al., 2001; Motta et al., 1999). Additionally, in the present study, it was hypothesized and found that the Secondary Trauma Scale correlated with five out of six subscales of an established measure of general traumatic stress symptoms in children and adolescents. Overall, these results suggest that the Secondary Trauma Scale may be a useful measure of secondary traumatic stress reactions for adolescent samples between the ages of 11 and 16. However, additional research clearly needs to be conducted to confirm and expand upon the full nature of the scale's psychometric properties with an adolescent population.

Helping Behaviors. This study highlights the fact that youth are indeed helping their friends in distress. Not only were youth willing helpers to their friends, but more youth reported feeling competent about helping their friends than reported feeling powerless to help. In a sample that was recruited and pre-screened for having had at least one traumatic event disclosed to them by a peer, youth reported having friends disclose to them an average of 3.78 traumas over the past year. Furthermore, youth reported instances of helping their friends with a wide range of traumatic experiences, such as car accidents, community and gang violence, physical and sexual abuse, and rape. For many youth, the trust imparted to them by their friend, and the process of listening to and helping their friend with their problems were all indicative of their friendship relationship.

The helping behaviors utilized by youth to help their friends were diverse in nature. Many youth's helping behaviors fell into two distinct categories that have been reported previously in the helping literature. These categories include emotional helping (McGuire, 1994) and informational support (Dakof & Taylor, 1990). Emotional helping

encompasses forms of helping behaviors such as comforting, understanding, and empathic listening to their friends. Emotional helping also suggests the acknowledgement and legitimization of their friends' feelings and experiences and encouragement for their friends to express their feelings (R. A. Clark, MacGeorge, & Robinson, 2008). In this study, the highest percentage of youth reported listening as a helping behavior, while youth, particularly females, also utilized heartening responses to encourage and comfort their friends. Additionally, more youth who were indirectly exposed to their friends' interpersonal traumas reported the use of heartening and the importance of the cathartic experience for their friends compared to youth indirectly exposed to other forms of trauma. This is important given that studies of adult victims of sexual violence have found particularly helpful responses by family and friends to include expressions of concern, empathy, and a willingness to listen without judgment (Dakof & Taylor, 1990; Davis & Brickman, 1996; Weisz, Tolman, Callahan, Saunders, & Black, 2007). Thus, a substantial number of youth in this study recognized the need for empathy, nurturing and listening to their traumatized friends and provided this assistance which has been suggested as beneficial by victims themselves.

With regards to the informational support category of helping behaviors, this form of support involves providing useful information and advice that helps their friends understand and cope with their experiences and may include the provision of information about the nature of their experiences or about available resources for their friends (Cohen & Wills, 1985). In this study, roughly a third of youth provided advice to their friends about dealing with their situations, with more females than males reporting the use of this form of support. It is possible that this gender difference in providing advice is a result of

gender differences in the types of disclosed traumatic events that youth chose to focus on for the purposes of this study. That is, more females discussed a friend's interpersonal trauma situations which may lend themselves well to the recommendation of actions to take in response to the victimization. On the other hand, more males discussed a friend's noninterpersonal trauma, situations which may not lend themselves well to advice giving given the more "accidental" nature of such events as car, bike, and snowboarding accidents.

In discussing youth's helping behaviors, it is important to touch on what youth did with the information disclosed to them by their friend. A third of youth turned to family and friends for advice about how to help their friend and to process their feelings. A smaller number of youth turned to an adult for the purposes of disclosing that their friend was in danger and to have the adults assume primary responsibility for helping their friend. On the other hand, almost half of the youth in this study chose to maintain their friends' confidentiality and did not tell anyone else about what their friends disclosed. Furthermore, more youth who supported a friend through an interpersonal trauma reported maintaining their friends' confidentiality than youth indirectly exposed to other forms of trauma. These youth were assuming a large amount of responsibility for the well-being and emotional health of their friends. While a few of those who tried to keep their friends' difficulties secret ultimately chose to turn to an adult for assistance, many maintained their friends' confidentiality up until the time of the study.

This process of disclosure versus non-disclosure is an important one to consider in the development of future symptoms of psychopathology. Pennebaker (1985) has suggested that secret-keeping and the inhibition of feelings may result in psychosomatic

illnesses, particularly given the amount of physiological and psychological effort that goes in to withholding information from others. Another study conducted by Finkenauer and Rime (1998) found that individuals who reported having a secret memory had more illnesses and were less satisfied with their lives than those individuals who had no secret memories that they kept from others. However, these studies have looked only at secrets that are kept about one's own personal history, as opposed to keeping a secret for and about a friend. Therefore, this process of secret-keeping versus disclosing to others, particularly to adults, will be an important one to examine in future studies in order to explore more explicitly the role that secret-keeping plays in the development of symptoms of STS during adolescence. Furthermore, it will be important to consider the relationship between age and the process of disclosure given that younger adolescents, who are early in their separation and individuation process from their parents, might be more inclined to disclose a friend's trauma to an adult. Of note, in this study, a post-hoc independent samples t-test analysis found a significant difference ($p < .01$) in mean age for youth who ultimately disclosed their friend's trauma to an adult ($M = 11.40$, $SD = 0.89$) versus those who did not ($M = 13.58$, $SD = 1.56$).

Effects on Youth. A review of the empirical literature on secondary and vicarious traumatization provides support for the experience of symptoms of STS and general psychological distress among individuals who provide psychosocial services to traumatized populations. The results of the qualitative portion of this study suggest that youth are also experiencing a wide range of psychological and emotional reactions in response to supporting their traumatized peers. Furthermore, while a third of youth reported that their initial emotional reaction to their friends' traumatic experiences

lessened with time, several youth reported an ongoing struggle with their distress reactions at the time of the study.

Some of the qualitative reactions of youth to hearing about their friends' traumatic experiences can be best categorized as psychological distress reactions (M. L. Clark & Gioro, 1998; McCann & Pearlman, 1990). Psychological distress reactions expressed by youth during the semi-structured interview portion of this study included: shock, sadness, fear, worry, and anger, with shock being the most expressed distress response. While there were no gender differences between youth on these so-called psychological distress reactions, more youth who were exposed to a friend's interpersonal trauma reported having a sadness response compared to youth indirectly exposed to other forms of trauma. While it is not certain exactly why this is the case, a possible explanation is that youth were responding more sympathetically to victims of interpersonal trauma given their victimization by close and trusted family members. Another possible explanation is that given the developmental emphasis on interpersonal relationships with peers during adolescence, youth may be particularly vulnerable to threats to their view of interpersonal relationships and the realization that their interpersonal world can be one of danger. Thus, youth's feelings of sadness may reflect a negative shift in their personal view and understanding of interpersonal dynamics.

Other reactions of youth to hearing about their friends' traumatic experience can be best categorized as cognitive shifts (Janoff-Bulman, 1992). According to Janoff-Bulman (1992), directly experienced trauma and the knowledge of victims of traumatic events threaten three basic assumptions that people hold about the world in which they live: 1) the world is meaningful and orderly, 2) the self is personally invulnerable and

safe, and 3) the self is good and worthy. The term cognitive shift refers to shifts in these beliefs, expectations, and assumptions. Furthermore, Janoff-Bulman and colleagues (1992; 1983) have suggested that significant stress and anxiety, in addition to fear of recurrence of the traumatic event are a few common emotional symptoms that develop in individuals as a result of these cognitive shifts. While more than half of the youth in this study maintained that they still felt in control of the world around them and their future risk for harm, cognitive shift reactions occurred for a substantial number of other youth as a result of learning about and supporting their friend through a traumatic experience.

For some youth, hearing about the traumatic experiences of their friends shattered their assumption of a meaningful world and left them feeling as though they had no control over their future risk of experiencing the same trauma themselves. Furthermore, more females than males experienced this cognitive shift. This gender difference could perhaps be a result of more females discussing a friend's human-induced interpersonal trauma wherein individuals are more likely to confront the "existence of evil and question the trustworthiness of people," (Janoff-Bulman, 1992, p. 78). Other youth experienced a shattered assumption of invulnerability, which left them with increased feelings of being susceptible to harm. On the other hand, there were also youth in this study who reported no cognitive shifts at all, but rather reported that learning of their friends' traumatic experience simply confirmed their already existing worldview. For these youth it was generally the case that the world was already considered a dangerous, cruel, and unpredictable place prior to learning about their friend's traumatic experiences.

Youth also responded with symptoms that were more trauma-specific in nature, namely, intrusive thoughts, hypervigilance, and avoidance. This reporting of trauma-

specific symptoms is consistent with studies of STS among mental health care workers wherein high levels of intrusion, avoidance, dissociation, and sleep disturbance have been found (Bride, 2004; Kassam-Adams, 1999). Finally, while coping strategies were not evaluated in this study several responses made by youth might be considered attempts to process, make sense of, or even cope with the nature of their friends' disclosures. Examples of such reactions by youth include, responding with humor, use of religion, minimization of their friends' lived experiences, and contemplation of human nature. Coping strategies and the general efforts of youth to process and manage their experience of supporting a traumatized friend deserve additional examination in order to better understand their role in the development of, or protection from, symptoms of STS.

Group Differences in the Experience of Secondary Traumatic Stress. Several points of interest emerged from the group comparison results in this study. Males and females significantly differed on symptoms of general traumatic stress as measured by the TSCC. More specifically, females had more symptoms of anxiety, depression, anger, posttraumatic stress, and dissociation than males.

In trying to understand these results, additional analyses revealed that males and females did not differ on personal trauma history, time since first exposure to their friends' traumatic experiences, or on how traumatic they perceived the experiences of their peers to be. One possible explanation, therefore, for higher levels of general traumatic stress in females compared to males could be that males and females significantly differed on the types of traumatic peer experiences that they chose to use for the purposes of the interview. Although roughly the same amount of males (36.7%) and females (43.3%) discussed a friend's community/other violence, a higher percentage of

females (43.3%) than males (13.3%) discussed a friend's interpersonal trauma, while a higher percentage of males (50.0%) than females (13.3%) discussed a friend's noninterpersonal trauma. Therefore, exploratory one-way between groups analyses of covariance (ANCOVA) were also run comparing males and females on symptoms of general traumatic stress while controlling for type of trauma exposure. ANCOVA results suggested that, after controlling for trauma type, females still reported significantly more symptoms of general traumatic distress.

Therefore, it is necessary to turn to research in the trauma field concerning gender differences in levels of posttraumatic stress symptoms to help explain this study's findings that females had more symptoms of general traumatic stress than males. In the trauma literature, while it has previously been believed that higher levels of traumatic stress symptoms in females compared to males were largely due to females' higher rates of exposure to sexual violence, (Cuffe et al., 1998; Pynoos, Steinberg, & Goenjian, 1996; Walker, Carey, Mohr, Stein, & Seedat, 2004), additional research has also suggested that females report more traumatic stress symptoms than males in response to a variety of traumatic experiences. For example, several researchers have noted that female adolescents exposed to community violence were up to six times more likely to develop symptoms of posttraumatic stress than the adolescent males in their studies, despite males reporting higher levels of exposure to violence (E. J. Jenkins & Bell, 1994; Schwab-Stone et al., 1995; Singer, Anglin, Song, & Lunghofer, 1995). Therefore, this previous research and the findings from this study suggest that being female may in fact be a risk factor for the development of general traumatic stress symptoms following indirect trauma exposure. However, in order to have more certainty concerning the impact of gender on

the development of symptoms following the provision of support to a friend, additional research is required. Potential research agendas might include studies focusing on gender differences in cognitive appraisals and coping styles in the aftermath of a peer's disclosure of trauma.

Despite the gender differences in levels of general traumatic stress, this study did not support the hypothesis that females would report more symptoms of STS than males as measured by the Secondary Trauma Scale. To understand this discrepancy it is important to consider the nature of the symptom measures themselves. Unlike the more narrowly focused Secondary Trauma Scale which asks youth to complete the measure with a specific traumatic experience in mind, the TSCC does not ask youth to filter their symptoms through the lens of a specific traumatic event. That is, the TSCC does not require youth to differentiate whether their symptoms are due to a specific experience, but rather the measure allows youth to report any and every psychological symptom they may be experiencing. Therefore, the finding above suggests that while females may be more generally affected than males by what they heard from their friends, males and females may be having similar levels of focalized STS reactions in response to helping their friend.

Another more exploratory group comparison was also made as part of this study. Youth were placed in: 1) noninterpersonal, 2) interpersonal, or 3) community/other violence groups based on the nature of the traumatic experience disclosed to them by their friend. While no group differences were found to exist between the groups on symptoms of general traumatic stress, group differences were found between youth exposed to a friend's interpersonal trauma and youth exposed to a friend's

noninterpersonal trauma on symptoms of STS. More specifically, the interpersonal trauma exposure group had higher levels of STS than the noninterpersonal trauma exposure group. Furthermore, taking into consideration the gender differences in each of these groups that were described above, these results were found to be maintained even after controlling for gender in post hoc analyses conducted in attempts to explain this finding.

Several studies have made comparisons between individuals directly exposed to noninterpersonal trauma and those exposed to interpersonal trauma. For example, Resnick and colleagues (1993) found lifetime rates of PTSD ranging from 31% to 39% for individuals exposed to interpersonal traumas, compared to a rate of 9% for those with noninterpersonal trauma. Likewise, Green and colleagues (2000) found that interpersonal trauma exposure was related to increased trauma-related symptoms, while noninterpersonal trauma exposure was not. Furthermore, additional research has shown that adolescents exposed to interpersonal trauma are at increased risk for internalizing (Mazza & Reynolds, 1999) and externalizing disorders (Ford, 2002) compared to adolescents exposed to noninterpersonal traumatic events. In sum, results of these studies have generally found higher levels of symptoms associated with direct exposure to interpersonal traumatic events compared to noninterpersonal traumatic events, suggesting that interpersonal trauma is more distressing. In support of this hypothesis, additional analyses run as part of this study revealed that based on a scale ranging from 1 to 5, with 1 indicating "Mildly Traumatic" and 5 indicating "Very Severely Traumatic," youth indirectly exposed to interpersonal trauma perceived their friends' traumatic experiences to be more traumatic ($M = 2.65$, $SD = 1.12$) than youth indirectly exposed to

noninterpersonal trauma (M = 1.68, SD = 0.82). Thus, this study suggests that youth exposed to the interpersonal trauma of their friends are at increased risk for STS reactions compared to youth exposed to their friends' noninterpersonal trauma, likely because of the more distressing nature of interpersonal traumatic experiences.

While there were group differences based on trauma type for symptoms of STS, there were no differences in general symptoms of traumatic distress between the trauma type groups. One possible explanation for this is that, as mentioned earlier, while symptoms of STS as measured by the Secondary Trauma Scale are more directly focused on a youth's experience of helping a friend through a specific traumatic event, the youth's report of general traumatic stress and related psychological symptoms as measured by the TSCC is not specifically anchored to their friends' disclosures. Therefore, it is possible that this finding is picking up on the fact that while youth who are indirectly exposed to their friends' interpersonal trauma are comparatively experiencing a more focused posttraumatic reaction, they are not generally more symptomatic than youth exposed to other types of traumatic material. Furthermore, given that, as noted above, youth indirectly exposed to a friend's interpersonal trauma perceived their friends' experiences as more traumatic than youth indirectly exposed to a friend's noninterpersonal trauma, it is possible that because of this increased perception of severity, interpersonally exposed youth had an increased expectation and belief that their friends' experiences could upset them and be the cause of their symptoms. On the other hand, youth indirectly exposed to noninterpersonal trauma may not have perceived their friend's experience as being traumatic enough to affect them. Despite these possible explanations, future research specifically comparing indirect exposure to the

interpersonal and noninterpersonal trauma of a friend will likely provide more information to explain this interesting and complex finding.

Age, Trauma History, Emotional Proximity, Emotionality, and Time Since Exposure. Given the primarily exploratory nature of this study, several variables of interest were explored for their relationship to the development of STS symptoms and symptoms of general traumatic stress. These variables were age of the youth at the time of the study, youth's own personal trauma history, their level of closeness or intimacy with the friend they supported, their experience of positive and negative affect at the time of their friend's disclosure and at the time of the study, and time since friend's disclosure. Age, trauma history, time since exposure, and emotional proximity were not associated with symptoms of STS or general traumatic distress. However, past and present positive and negative affect were associated with symptoms of STS and several symptoms of general traumatic stress.

In several studies with adults and children, high negative affect has been correlated with a strong stress response, particularly in those situations where individuals experience a significant lack of control (Melvin & Molloy, 2000; Spector & O'Connell, 1994). Furthermore, negative affect has also been associated with poor coping skills (Crook, Beaver, & Bell, 1998; Kanner, Coyne, Schaefer, & Lazarus, 1981; Wills, 1986). If only negative affect was correlated with increased symptoms it might be possible to hypothesize that youth in this study with more negative affect were experiencing more overwhelming stress and were perhaps coping less effectively with their friend's traumatic experience. However, in this study both positive and negative affect were associated with increased symptoms. One possible explanation for the relationship

between higher levels of both positive and negative affect and symptoms of STS is that youth who reported higher levels of negative affect were also more likely to report higher levels of positive affect and were therefore more emotionally reactive overall. This hypothesis can be partially supported by the fact that in this study, higher levels of past positive affect were found to be associated with higher levels of past negative affect (r = .36, $p < .05$), while higher levels of present positive affect were also associated with higher levels of present negative affect (r = .26, $p < 0.5$).

Research with direct victims of trauma has suggested that trauma exposed individuals may struggle with aspects of emotionality, particularly emotion regulation (Diamond & Aspinwall, 2003; Saxe, Ellis, & Kaplow, 2007). Furthermore, additional trauma research has begun to suggest that symptoms of posttraumatic stress are strongly associated with poor use of emotion regulation strategies (Barlow, Allen, & Choate, 2004; Brewin, Andrews, & Valentine, 2000; Tull, Barrett, McMillan, & Roemer, 2007). Therefore, it is possible that the youth in this study were similarly struggling with the regulation of both their positive and negative emotions as a result of supporting their friend through a traumatic experience, and that this emotional dysregulation placed them at additional risk for the development of symptoms of STS. Furthermore, more highly emotional youth may have been more likely to self-disclose symptoms of psychological distress or they may have been more aware of the impact of emotional situations on their functioning. One final suggested explanation is that elevated emotionality may be linked to increased levels of empathy, which in turn may be linked to increased symptoms of STS. Support for this possibility comes from existing research that has explored the role of emotional expressiveness and emotion regulation in the display of empathy, or

vicarious emotional responding. For example, a study of young children found that higher levels of empathy displayed in response to simulated distress incidents were associated with increased expression of both positive and negative emotions (Robinson, Zahn-Waxler, & Emde, 1994). Further research is necessary to measure and explore the possible relationship between emotionality, emotion regulation strategies, empathy, and the development of symptoms of STS.

Strengths and Limitations. As with all research, several limitations of this study should be noted. First, although multiple tests were conducted, the uncorrected, and less stringent, conventional significance level ($p < .05$) was used for interpreting results in order to accommodate the exploratory nature of this study. Therefore, it should be recognized that this may in fact represent a liberal evaluation of the findings. A second limitation is that while preliminary convergent validity was found between the Secondary Trauma Scale and the TSCC, this study did not assess the discriminant validity of the Secondary Trauma Scale against measures of theoretically unrelated constructs. Therefore, the full construct validity of this scale with an adolescent population cannot be assumed. A third limitation is that, while qualitative analyses allow for a multitude of themes and ideas to emerge, the generalizability of the findings to a larger population is not guaranteed. In addition, given the nature of qualitative research, it is also important to note that the qualitative results found in this study may be interpreted differently by researchers approaching the data with a different methodology or theoretical framework. A fourth limitation of this study is that it was focused solely on the youth as supporter rather than also evaluating their friends' behaviors and affective states upon disclosure. It will be important for future researchers of STS in youth to recognize the reciprocal nature

of the support process and attempts should be made to explore not only youth's individual risk factors for the development of STS symptoms, but also the role that their friends' emotional and behavioral reactions at the time of disclosure may have on symptom development.

A fifth limitation of this study is that the research team involved in both the interviewing and the qualitative analysis of the interviews consisted of all females. Thus, the unintentional exclusion of males may have affected particularly the male subjects' willingness to show emotion or disclose difficulties during data collection. In addition, during the content analysis process, it could be that the all-female research team had limited awareness and interpretation of potential male-specific helping behaviors and reactions to peer helping. A final limitation is that given the infancy of research on youth's provision of social support to their friends and their subsequent traumatic stress reactions, there was little previous research on which to choose variables of interest and to base hypotheses. The variables that were ultimately evaluated in this exploratory study by no means represent all the possible risk factors and variables of interest for youth who support their friends through traumatic experiences. Nevertheless, this study sheds a light on variables that future researchers may want to consider and further evaluate for their role in the development of symptoms of STS in youth.

Despite these limitations, this study also possessed several strengths. The mixed methods design offered a versatile approach to understanding the complex phenomena of peer helping and the development of symptoms of STS. This approach appeared to be particularly suitable for the purposes of this exploratory study in that it provided a wide range of information on which future studies can be designed. Moreover, the qualitative

methodology provided an opportunity to gather rich detailed information, in the youth's own words, concerning their experiences of supporting a friend. Furthermore, the open ended nature of the semi-structured interview questions elicited responses from youth that were not prompted or guided by the researchers' preconceived ideas of their experiences. An additional methodological strength of this study was the fact that participation in the study did not have to occur in a laboratory setting. The mobility of the researcher and giving families the opportunity to choose a location for participation that was convenient for them is believed to have influenced the ability to recruit youth from typically underrepresented racial and ethnic minority groups thus resulting in a diverse community sample of adolescents.

Practical Implications. The findings of this study have practical implications. As this study illustrates, youth do talk to their friends about difficult topics, and youth are clearly helping their friends through traumatic and stressful experiences. However, while youth may be on the frontlines when it comes to the provision of social support to their friends, these supportive youth are not usually eligible or referred to the counseling services that are typically available to the adolescent victims themselves. Therefore, it is important for schools, community agencies, and other organizations that serve adolescent youth to develop programs for youth that strive to educate them regarding helping skills, self-care, and coping strategies so that when a youth's friends do come to them for support, they are able to respond appropriately while also caring for their own emotional state in response to helping their friends. While it is important to recognize that peer helping may be a natural and effective way to reach out to adolescents in distress, youth also need to recognize their limits to supporting their friends. Therefore, any program

aiming to address informal peer helping with youth also needs to ensure that youth learn to recognize when they are assuming too much responsibility for the welfare of their friends and should turn to trusted adults for assistance. Finally, parents and caregivers should also play a significant role in talking with their children about their friendship relationships, in addition to modeling and educating their children about appropriate helping behaviors and self-care strategies. Parent's regular communication with their children can make it easier for them to turn to their parents when they have a problem, thus lessening the likelihood that they would weather the burden of their friends' pain and trauma alone.

Conclusions and Future Directions. Data from this exploratory study provides a rich foundation for future investigations. An evaluation of the Secondary Trauma Scale as part of this study suggests that it is appropriate for use with an adolescent population between the ages of 11 and 16. However, this is only the first time this scale has been assessed with a youth sample. Therefore, the scale's psychometric properties and validity should continue to be assessed against other known measures of traumatic stress and with a variety of adolescents of different ages, ethnicities, and socioeconomic backgrounds. Moreover, an exploration of potential cut-off scores specifically for clinical levels of secondary traumatic stress reactions among adolescents may be beneficial. Overall, the development and validation of measures of secondary traumatic stress, such as the Secondary Trauma Scale, is critical for both clinical and research purposes.

Results from this study suggest that youth are helping their friends through a variety of challenging and traumatic experiences. Additionally, results suggest that youth who support their friends are experiencing a wide range of cognitive, psychological, and

emotional reactions. Furthermore, evidence from this study tentatively suggests that in response to supporting a friend through a traumatic experience, females are at increased risk for the development of symptoms of general traumatic stress, while youth exposed to a friend's interpersonal trauma are at increased risk for the development of more focalized symptoms of STS. Results also suggest that youth with increased levels of overall affect at the time of their friend's disclosure are at increased risk for the development of symptoms of STS and general traumatic stress. However, much more research needs to be conducted to accurately determine the role of gender, trauma type, and positive and negative affect on the development of symptoms.

As this study is one of the first of its kind and is primarily exploratory in nature, additional research into this phenomenon of friends helping friends through traumatic experiences would be beneficial. One area for future researchers to explore, which has been touched on in the literature surrounding vicarious traumatization in mental health care workers who work with traumatized populations, is the cumulative effect on youth of peer helping and the amount of indirect exposure they get to the traumatic experiences of their friends. With an average of 3.78 traumas disclosed to the youth in this study in the past year, the range went from one peer trauma per subject to eleven peer traumas per subject. Of note, a post-hoc correlational analysis run in this study found that an increased number of peer disclosures made by a youth's friends was related to higher levels of anxiety ($r = .30$, $p < .05$), anger ($r = .33$, $p < .05$), posttraumatic stress ($r = .29$, $p < .05$), and STS ($r = .48$, $p < .01$). Thus, a possible avenue for future researchers might include the longitudinal evaluation of peer helpers throughout adolescence and into adulthood in order to determine potential long-term negative, and positive, effects of

ongoing and multiple instances of peer helping. Future researchers should also consider that, while the variability in the traumatic experiences disclosed to youth by their peers might be considered a strength of this study, it will be important to also explore the effects of peer helping on youth exposed to the same type of traumatic experiences (i.e. peer disclosure of sexual abuse only, or peer disclosure of physical abuse only) in order to discriminate between the general stress of peer helping and those effects that might be due primarily to the nature of the traumatic material disclosed. Furthermore, it is also suggested that future researchers explore the coping strategies used by youth as they provide support for their traumatized friends. Identifying and examining positive and negative coping strategies used by youth will do more towards ensuring that youth who support their friends are coping effectively with the stress of helping. Finally, the recruitment of older adolescents was particularly challenging in this study. Future research should therefore strive to recruit and involve older adolescents in order to more accurately and comprehensively capture the peer helping experience among an older adolescent sample.

Gaining a clearer understanding of the effects of peer helping on adolescent youth is imperative given that youth are clearly helping their friends with traumatic and stressful experiences. Learning more about this process and risk factors for adverse reactions as a result of the helping process is therefore essential from the standpoint of helping prepare youth to provide such informal support to their friends while also making sure that youth themselves are taken care of in the process. This study will hopefully serve as the beginning of a conversation among researchers in the trauma field

concerning youth who support friends through traumatic experiences and their subsequent development of symptoms of STS.

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Appendix A Tables

Table 1
Description of Recruitment and Screening Process

Recruitment Locations	**Number Screened**	**Number Included in Study**	**Number Excluded from Study**	**Reasons for Exclusion**
Craigslist	43	38	5	All five excluded had no experience of peer helping
Local Christian Youth Group	13	12	1	Audiotape of interview unable to be transcribed due to equipment malfunction
Metro Denver Boys & Girls Club	10	10	0	---
University of Denver	0	0	0	---
Washington Park Recreational Center	0	0	0	---
Denver BackPages	0	0	0	---

Table 2
Repeating Ideas and Thematic Definitions

Repeating Idea/Theme	Definition
Youth's Emotional/ Behavioral Response	
Worried Response	Response that involves uneasiness, anxiety, concern.
Angry Response	Response that involves a strong feeling of directed displeasure**.**
Sadness Response	Response that involves feelings of unhappiness or grief; sorrowful or mournful.
Fearful Response	Response that involves a distressed emotion aroused by threat or danger; being afraid or apprehensive.
Relieved Response	Response that involves the ease or alleviation of pain, distress, or anxiety.
Shocked Response	Response that involves a sudden or unexpected disturbance of the mind, emotions, or sensibilities.
Humor Response	Response that involves the perception of amusement or comedy in a situation
Self – Absorption Response	Response that involves self-reflection or self-absorption; focusing on their own experiences.
Empathic Response	Response that involves the sharing in the feelings of another; the intellectual identification with or vicarious experiencing of the feelings, thoughts, or attitudes of another.
Minimization of Friend's Experience	Response that involves reducing the importance, significance, or influence of another's experience.
Unemotional Response	Lack of emotional response; not having any emotions or feelings.
Awareness of Pain/Injury	Response that involves a focus on another's risk, or actual experience, of pain (emotional or physical), harm, or injury.
Curiosity Response	Response that involves the desire to learn or know about what has happened; an inquisitiveness.

Table 2
Continued

Repeating Idea/Theme	Definition
Contemplating Human Nature	Thinking about why people do the things they do; trying to make sense of human nature and why bad things happen to people.
Youth's Traumatic Response	
Intrusive Thoughts	Unwanted mental imagery or thoughts of an experience.
Hypervigilance/ Avoidance	Making an effort to avoid things that remind youth of friend's experience; remaining cautious of danger.
Youth's Helping Behaviors	
Listening	Attending closely to friend's story for the purpose of hearing.
Competence	Feeling as though in possession of a required skill; having suitable or sufficient skill, knowledge, or experience for the purpose of helping.
Advising	Giving counsel or advice to friend; offering an opinion or suggestion as worth following to friend.
Heartening	Giving strength, courage, or hope to friend; encouraging friend.
Physical Comfort	Providing friend with consolation through touch.
Religion	Utilizing church, god, or prayer to comfort friend.
Turn Back Time	Wishing that what happened to friend had not occurred either through youth's own intervention or through the turning back of time.
Revenge	Seeking or considering the opportunity to retaliate or take vengeance for what happened to friend.
Powerlessness	Feeling as though they are unable to help friend; lacking power to help; helpless.
Emphasis on Catharsis	Emphasizing friend's need to purge their story and emotions in order to relieve emotional tensions.

Table 2
Continued

Repeating Idea/Theme	Definition
Youth's Disclosure Process	
Social Support Seeking	Seeking the support of others, both family and friends, following friend's disclosure.
Disclosure to Adult	Specifically disclosing friend's story/trauma to an adult, either a mom/dad, teacher, or some other adult authority figure for purposes of reporting or to make something happen.
Confidentiality	Upholding the idea that what friend disclosed to them was spoken in strict privacy or secrecy.
Effects of Experience on Youth	
Shattered Assumption of Invulnerability	Disrupted belief in invincibility; increased belief in being capable of or susceptible to harm.
Shattered Assumption of the World as a Meaningful Place	Disrupted belief in the world as a meaningful and safe place; increased belief in the world as an incomprehensible, uncontrollable, unsafe, and disorderly place.
Appreciation	Youth's gratitude and thankfulness for own life.
Confirmation of Worldview	Youth utilizes friend's traumatic experience to establish the truth, accuracy, and validity or their prior understanding of the world.
Internal Locus of Control	Youth's belief that his/her past, present, and future behaviors are guided by their own personal decisions and efforts that are within his/her personal control.
External Locus of Control	Youth's belief that his/her behavior is guided by fate, luck, or other external circumstances that are outside his/her personal control.
Unresolved Negative Emotions	Continuation of youth's unpleasant feelings or emotional response to friend's trauma despite the passage of time.

Table 2
Continued

Repeating Idea/Theme	**Definition**
Attenuation of Reaction with Time	Lessening, weakening or reduction of youth's emotional response to friend's trauma as a result of the passage of time.
Friendship	
Value of Trust	Recognition by youth of friend's confidence and trust in youth.
Value of Reciprocity	Recognition by youth of the nature of their friendship relationship as one of mutual exchange.

Table 3
Prevalence of All Peer Disclosed Traumas in Past Year

Peer's Trauma Disclosed	Frequencies *n* (%)
Accident	32 (53.3%)
Beaten-Up/Threatened in Community	30 (50.0%)
Medical Trauma	30 (50.0%)
Witnessed Community Violence	26 (43.3%)
Physical Abuse	25 (41.7%)
Violent Death/Serious Injury of Loved One	23 (38.3%)
Witnessed Family Violence	13 (21.7%)
Seen Dead Body	10 (16.7%)
Sexual Abuse	10 (16.7%)
Disaster	8 (13.3%)
War	7 (11.7%)
Raped	3 (5.0%)
Earthquake	1 (1.7%)

Table 4
Prevalence of Peer Disclosed Traumas Discussed During Interview

Peer's Trauma Disclosed	Frequencies *n* (%)
Accident	16 (26.7%)
Beaten-Up/Threatened in Community	16 (26.7%)
Physical Abuse	8 (13.3%)
Witnessed Community Violence	5 (8.3%)
Rape	3 (5.0%)
Violent Death/Serious Injury of Loved One	3 (5.0%)
Sexual Abuse	2 (3.3%)
Witnessed Family Violence	2 (3.3%)
War	2 (3.3%)
Disaster	2 (3.3%)
Earthquake	1 (1.7%)

Table 5
Numbers and Percentages of Transcripts by Frequency of Repeating Idea and Theme

Repeating Idea/Theme	Number (Percent) of All Transcripts with Idea/Theme *n* (%)
Youth's Emotional/Behavioral Response	
Shocked Response	46 (76.7%)
Sadness Response	30 (50.0%)
Awareness of Pain/Injury	25 (41.7%)
Curiosity Response	25 (41.7%)
Fearful Response	23 (38.3%)
Worried Response	16 (26.7%)
Self-Absorption Response	15 (25.0%)
Empathic Response	13 (21.7%)
Contemplating Human Nature	12 (20.0%)
Humor Response	10 (16.7%)
Minimization for Friends Experience	8 (13.3%)
Relieved Response	7 (11.7%)
Unemotional Response	7 (11.7%)
Angry Response	6 (10.0%)
Youth's Traumatic Response	
Hypervigilance/Avoidance	15 (25.0%)
Intrusive Thoughts	5 (8.3%)
Youth's Helping Behaviors	
Listening	28 (46.7%)
Competence	23 (38.3%)
Heartening	23 (38.3%)
Advising	22 (36.7%)
Emphasis on Catharsis	21 (35.0%)
Powerlessness	17 (28.3%)
Religion	6 (10.0%)
Revenge	5 (8.3%)
Physical Comfort	4 (6.7%)
Turn Back Time	4 (6.7%)
Youth's Process of Disclosure	
Confidentiality	26 (43.3%)
Social Support Seeking	19 (31.7%)
Disclosure to Adult	5 (8.3%)
Effects of Experience on Youth	
Internal Locus of Control	33 (55.0%)
External Locus of Control	25 (41.7%)
Attenuation of Reaction with Time	20 (33.3%)
Confirmation of Worldview	19 (31.7%)

Table 5
Continued

Repeating Idea/Theme	Number (Percent) of All Transcripts with Idea/Theme N (%)
Shattered Assumption of the World as a Meaningful Place	14 (23.3%)
Unresolved Negative Emotions	12 (20.0%)
Shattered Assumption of Invulnerability	11 (18.3%)
Appreciation	4 (6.7%)
Friendship Variables	
Value of Trust	15 (25.0%)
Value of Reciprocity	11 (18.3%)

Table 6
Descriptive Statistics of Outcome Variables

Variables	*N*	*M*	*SD*	Range	α
Secondary Trauma Scale	60	29.47	12.60	18 – 66	.93
TSCC - A					
Anger Subscale	60	6.77	4.79	0 – 15	.81
Anxiety Subscale	60	5.15	4.03	0 – 14	.79
Depression Subscale	60	5.83	4.01	0 – 14	.75
Posttraumatic Stress Subscale	60	7.55	5.30	0 – 23	.84
Dissociation Subscale	60	8.27	5.77	0 – 19	.85
PANAS – C, Past Version					
Positive Affect	60	28.35	9.52	15 – 58	.85
Negative Affect	60	30.33	12.39	15 – 64	.91
PANAS – C, Present Version					
Positive Affect	60	29.03	12.57	15 – 61	.91
Negative Affect	60	23.48	10.36	15 – 60	.91
FQS					
Closeness Subscale	60	28.77	8.29	8 – 40	.93

Note. TSCC – A = *Trauma Symptom Checklist for Children – Abbreviated*. PANAS – C = *Positive and Negative Affect Schedule for Children*. FQS = *Friendship Qualities Scale*.

Table 7
Correlations of the Secondary Trauma Scale and Trauma Symptom Checklist for Children Subscales

Variables	1	2	3	4	5	6
1. Secondary Trauma Scale ($N = 60$)	–					
2. Posttraumatic Stress Subscale ($N = 60$)	.44**	–				
3. Anxiety Subscale ($N = 60$)	.45**	.86**	–			
4. Depression Subscale ($N = 60$)	.38**	.82**	.75**	–		
5. Anger Subscale ($N = 60$)	.32*	.66**	.69**	.69**	–	
6. Dissociation Subscale ($N = 60$)	.23	.54**	.68**	.72**	.61**	–

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

Table 8
Summary Table by Gender for STS and Traumatic Stress Symptoms

Variables	Males *M* (*SD*)	Females *M* (*SD*)	Effect Size (Cohen's *d*)
Secondary Trauma Scale	28.37 (11.59)	30.57 (13.65)	.17
Anxiety Subscale	3.60 (2.92)	6.53 (4.02)**	.83
Depression Subscale	4.33 (3.49)	7.03 (3.15)**	.93
Anger Subscale	5.13 (4.14)	8.03 (4.06)**	.71
Posttraumatic Stress Subscale	5.47 (4.48)	9.63 (5.30)**	.85
Dissociation Subscale	6.47 (5.23)	9.57 (4.64)*	.63

Note. * $p < 0.05$. ** $p < 0.01$.

Table 9

Correlations of Age, Time Since First Exposure, Youth's Own Trauma History, Closeness, and Positive and Negative Affect with Symptoms of STS and General Traumatic Stress

Variables ($N = 60$)	Secondary Trauma Scale	Post-traumatic Stress	Anxiety	Depression	Anger	Dissociation
1. Age	.00	.02	.02	.13	.10	.18
2. Time Since First Exposure	-.01	-.08	.02	-.15	-.08	.00
3. Youth's Trauma History	.18	.15	.08	.03	.18	-.04
4. Closeness	.23	.15	.15	.18	.16	.19
5. Past Positive Affect	.29*	.26*	.26*	.25	.16	.15
6. Present Positive Affect	.28*	.18	.20	.20	.17	.10
7. Past Negative Affect	.53**	.29*	.23	.40**	.27*	.20
8. Present Negative Affect	.58**	.24	.16	.30*	.26*	.05

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

Table 10
Exploration of STS Symptoms by Trauma Type: Means and Standard Deviations

Variables	Non-interpersonal Trauma (1) (*n* = 19)	Interpersonal Trauma (2) (*n* = 17)	Community/ Other Violence (3) (*n* = 24)	Multiple Comparisons (Tukey HSD) 1-2	2-3	1-3
Secondary Trauma Scale	24.16 ± 9.13	34.82 ± 14.24	29.88 ± 12.50	* $Eta^2 = .11$	NS	NS
Anxiety Subscale	4.47 ± 3.57	6.12 ± 4.65	4.79 ± 3.26	NS	NS	NS
Depression Subscale	4.79 ± 3.60	6.94 ± 3.29	5.50 ± 3.61	NS	NS	NS
Anger Subscale	5.84 ± 4.05	7.18 ± 3.88	6.75 ± 4.89	NS	NS	NS
Posttraumatic Stress Subscale	6.63 ± 4.59	9.71 ± 6.05	6.75 ± 5.02	NS	NS	NS
Dissociation Subscale	6.79 ± 5.64	8.29 ± 4.83	8.79 ± 4.98	NS	NS	NS

One-Way ANOVA. * $p<.05$. NS = not significant

Table 11
Summary of Quantitative Findings for Study Aims and Exploratory Analyses (N = 60)

	IV	DV	Summary of Result	Test Statistic	*p*
Aim 2	Secondary Trauma Scale	TSCC Subscales	Secondary Trauma Scale correlated with:		
			• Posttraumatic stress subscale	$r = .44$**	.001
			• Depression subscale	$r = .38$**	.003
			• Anger subscale	$r = .32$*	.013
			• Anxiety subscale	$r = .45$**	<.001
Aim 3	Gender	Secondary Trauma Scale	**No** significant differences between males and females on symptoms of STS.		
	Gender	TSCC Subscales	Females had more symptoms of:		
			• Anxiety	$t = -3.23$**	.002
			• Depression	$t = -3.15$**	.003
			• Anger	$t = -2.74$**	.008
			• Posttraumatic stress	$t = -3.29$**	.002
			• Dissociation	$t = -2.43$*	.018

Table 11
Continued

	IV	DV	Summary of Result	Test Statistic	*p*
Exploratory Analyses	Age	Secondary Trauma Scale	**No** association of Age with symptoms of STS.		
	Age	TSCC Subscales	**No** association of Age with general traumatic stress symptoms.		
	Time Since Exposure	Secondary Trauma Scale	**No** association of Time Since Exposure with symptoms of STS.		
	Time Since Exposure	TSCC Subscales	**No** association of Time Since Exposure with general traumatic stress symptoms.		
	Past Negative Affect	Secondary Trauma Scale	Past Negative Affect correlated with symptoms of STS.	$r = .53$**	<.001
	Past Negative Affect	TSCC Subscales	Past Negative Affect correlated with symptoms of:		
			• Depression	$r = .40$**	.002
			• Anger	$r = .27$*	.037
			• Posttraumatic Stress	$r = .29$*	.023
	Present Negative Affect	Secondary Trauma Scale	Present Negative Affect correlated with symptoms of STS	$r = .58$**	<.001

Table 11
Continued

IV	DV	Summary of Result	Test Statistic	*p*
Preset Negative Affect	TSCC Subscales	Present Negative Affect correlated with symptoms of:		
		• Depression	$r = .30$*	.020
		• Anger	$r = .26$*	.047
Past Positive Affect	Secondary Trauma Scale	Past Positive Affect was correlated with symptoms of STS.	$r = .29$*	.027
Past Positive Affect	TSCC Subscales	Past Positive Affect was correlated with symptoms of:		
		• Anxiety	$r = .26$*	.043
		• Posttraumatic Stress	$r = .26$*	.044
Present Positive Affect	Secondary Trauma Scale	Present positive affect was correlated with symptoms of STS.	$r = .28$*	.031
Present Positive Affect	TSCC Subscales	**No** association of Present Positive Affect with general traumatic stress symptoms.		
Closeness	Secondary Trauma Scale	**No** association of Closeness with symptoms of STS.		

Table 11
Continued

IV	DV	Summary of Result	Test Statistic	*p*
Closeness	TSCC Subscales	**No** association of Closeness with general traumatic stress symptoms.		
Trauma Type	Secondary Trauma Scale	• Interpersonal trauma exposure group had higher levels of STS that Noninterpersonal trauma exposure group. • **No** group differences between Community/Other Violence exposure group and Interpersonal trauma exposure group. • **No** group differences between Community/Other Violence exposure group Noninterpersonal trauma exposure group.	$F = 3.81$*	.035
Trauma Type	TSCC Subscales	**No** group differences on symptoms of general traumatic stress.		

Table 11
Continued

IV	DV	Summary of Result	Test Statistic	*p*
Gender	Repeating Ideas/ Themes	Gender associated with:		
		• Advising (F > M)	$\chi^2 = 5.81$*	.016
		• Emphasis on catharsis (F > M)	$\chi^2 = 4.69$*	.030
		• Shattered assumption of the world as a meaningful place(F > M)	$\chi^2 = 4.57$*	.033
Trauma Type	Repeating Ideas/ Themes	Trauma type associated with:		
		• Sadness response (I>CV>N)	$\chi^2 = 11.55$**	.003
		• Awareness of pain/injury (N>I>CV)	$\chi^2 = 6.36$*	.042
		• Heartening (I>CV>N)	$\chi^2 = 13.70$**	.001
		• Emphasis on catharsis (I >CV>N)	$\chi^2 = 7.88$*	.019
		• Confidentiality (I >CV>N)	$\chi^2 = 9.01$*	.011

Note. Secondary Trauma Scale = *Measure of symptoms of STS.* TSCC = *Trauma Symptom Checklist for Children, a measure of general traumatic stress symptoms*.
Time Since Exposure = *Time since youth first exposed to peer's traumatic story*.
Past/Present Positive/Negative Affect = *Measured by Positive and Negative Affect Schedule for Children (PANAS – C)*. Closeness = *Measured by Closeness subscale on Friendship Qualities Scale (FQS)*. Trauma Type = *Noninterpersonal (N) trauma exposure, Interpersonal (I) trauma exposure, Community/Other Violence (CV) exposure*.
* $p < .05$. ** $p < .01$