

## PERCEPTIONS OF TRAUMA RESEARCH WITH A SAMPLE OF AT-RISK YOUTH

---

ANN T. CHU AND ANNE P. DEPRINCE  
*University of Denver*

**ABSTRACT:** GROWING BODY OF RESEARCH DEMONSTRATES that participants generally report favorable perceptions of participating in trauma research. However, questions remain on the long-term impact of asking at-risk youth about trauma in settings where such questions are unexpected. Perceptions of participation were examined in the current longitudinal study comprising a sample of adolescent girls recruited from the child welfare system to participate in a healthy relationship project. Over a year, teens ( $n = 180$ ) completed four research sessions during which they were interviewed about interpersonal trauma exposure and trauma-related symptoms. Results indicated that adolescents reported stable, favorable benefit-to-cost ratios over time. Perceptions of research participation and symptom severity did not impact retention.

**KEY WORDS:** traumatic stress research, responses to research participation, research ethics, at-risk youth

*Received: March 31, 2013; revised: August 6, 2013*

---

**R**ESearchers, institutional review boards (IRBs), and service providers share concerns about how people respond to being asked questions about traumatic experiences. In response to researchers' and IRBs' concerns that asking about trauma may be distressing to participants (for reviews, see Becker-Blease & Freyd, 2006; Newman & Kaloupek, 2004), a growing body of empirical findings now demonstrate that trauma survivors recruited from diverse populations generally rate participation in research on trauma as having greater benefits than costs. Studies on the benefits and costs of trauma research now include clinical samples (Carlson et al., 2003; Griffin et al., 2003), medical samples (Newman, Walker, & Gefland, 1999; Walker et al., 1997), community samples (DePrince & Chu, 2008; Hebenstreit & DePrince, 2012), and college samples (DePrince & Freyd, 2004; Shorey, Cornelius, & Bell, 2011). This benefit-to-cost pattern also holds for

populations viewed as particularly vulnerable, such as children (Chu, DePrince, & Weinzierl, 2008; Kassam-Adams & Newman, 2002, 2005), pregnant women (Schwerdtfeger, 2009; Schwerdtfeger & Nelson Goff, 2008), and individuals with intellectual or developmental disabilities (Scotti et al., 2012). Taken together, the growing body of work suggests that people who disclose their trauma histories as part of research studies generally report positive perceptions of their research experiences.

Having established generally positive benefit-to-cost ratios in the trauma research context, empirical studies of participants' responses can now begin to address larger questions from the field about the impact of asking about trauma exposure. From a service provision perspective, screening for and/or explicitly discussing traumatic experiences has become a key component in many forms of trauma-informed clinical interventions (e.g., Amaya-Jackson et al., 2003; Cohen et al., 2006). Addressing traumatic experiences is also increasingly seen as a necessary component in the treatment of serious problems such as substance use among trauma-exposed individuals (e.g., Najavits et al., 1998). Further, data reveal that interpersonal trauma exposure moderates treatment for prevalent problems such as depression. For example, women being treated for depression responded differentially to cognitive behavioral therapy and antidepressant medication if they had histories of childhood trauma than women without such histories (Nemeroff et al., 2003). Further, trauma-exposed adolescents respond less well to traditional depression interventions than their peers (Barbe et al., 2004; Lewis et al., 2010; Shirk, Kaplinski, & Gudmundsen, 2009).

As evidence increasingly points to the need to screen for and address trauma as part of providing effective mental and physical healthcare, service providers in diverse settings are likely to be asked to screen for and explicitly discuss trauma as a routine part of practice. Before integrating trauma screening and discussions into practice, service providers may have questions about the potential for negative impact from asking about trauma as part of routine care appointments where patients may not be expecting trauma to be discussed. Beginning to address such issues, Hebenstreit and DePrince (2012)

recently demonstrated that adult women recruited from public records reported favorable benefit-to-cost ratios for participation in a study focused on intimate partner abuse, despite not knowing the explicit trauma focus of the study when the research interview was scheduled. Participants were informed about having to fill out trauma-related surveys during consent.

In contrast to the Hebenstreit and DePrince (2012) study, most prior research on participation costs and benefits tended to involve studies where recruitment materials informed potential participants regarding the trauma focus (e.g., DePrince & Chu, 2008; Ruzek & Zatzick, 2000; Kassam-Adams & Newman, 2005). While these studies also demonstrated positive benefit-to-cost ratios, participant self-selection in these studies where trauma was advertised as a focus may skew the sample in favor of individuals who are more comfortable discussing their trauma histories and therefore less likely to be distressed. Thus, this current study builds on the work began by Hebenstreit and DePrince in assessing participation reactions in a sample where the participants learned about the trauma focus at the consent stage.

Furthermore, we know relatively little about how youth perceive trauma-specific questions in research studies or as part of ongoing mental/physical health services due to a lack of empirical research utilizing longitudinal designs. Two exceptions are studies that assessed participation reactions as part of treatment outcome. Resick and colleagues examined participant reactions to pre-treatment assessments for trauma and post-traumatic stress disorder symptoms during a treatment study and found that participant reactions to the assessment sessions did not impact treatment participation or treatment outcome over the course of the study (Resick, Iverson, & Artz, 2009). Weitlauf and colleagues also examined participant's perceptions of their experience as part of a randomized clinical trial (Weitlauf et al., 2007). The results indicated that participants reported positive benefit-to-cost ratios that maintained from pre-treatment to post-treatment as well as to a three-month follow-up. Notably, the benefit-to-cost ratios did not differ across conditions. Adding to the limited knowledge on how perceptions of trauma research might change over time, the current study examines adolescent girls' perceptions of the benefits and costs of participating in a longitudinal study that assessed for childhood interpersonal trauma exposure and teen dating violence in romantic relationships.

The study contributes to existing research in several important ways. First, the sample comprised youth who did not self-select into the study based on the topic of trauma or interpersonal violence. Rather, participants were from an at-risk population of girls who came to the

attention of the child welfare system due to childhood maltreatment and/or neglect. Girls were invited to participate in a "Healthy Adolescent Relationship Project." Recruiting materials mentioned that the project involved participating in a 12-week group that focused on how to build healthy relationships, including decreasing aggression; however, recruiting materials did not explicitly state that girls would be asked to report on their own experiences of violence/trauma. At the point of consent/assent, girls were told that they would be asked about their own experiences of interpersonal trauma at each of four interviews (pre-, immediately post-, two months post-, and six months post-intervention groups). Thus, the study mimicked common practice where service providers try to engage at-risk youth in services (in this case around healthy relationships) and screen for trauma exposure at intake prior to the start of services and over time as services continue.

The longitudinal design allowed us to examine potential changes in cost-to-benefit ratios over time and whether perceptions of research participation impacted retention at the next interview time point. Despite a robust body of research demonstrating positive perceptions of trauma research, the majority of these studies are cross-sectional in design where participants report on their perceptions immediately after the research session or within a few days (e.g., Newman, Walker, & Gefland, 1999). Researchers have little information regarding participants' perceptions of being asked about trauma over time. One of the few exceptions is a recent study by Hebenstreit and DePrince (2012) where adult women exposed to intimate partner abuse took part in three interviews over a one-year period. At each interview, women were asked about their perceptions of participation in the study using the Response to Research Participation Questionnaire (RRPQ; Newman & Kaloupek, 2004, 2009). Women reported favorable cost-to-benefit ratios consistently across all time points. Further, study attrition was unrelated to responses to research participation. The current study adds to this finding by also utilizing a longitudinal design where participants were interviewed at four time points over approximately one year. The longitudinal design of the current study allows us to examine whether reactions to trauma research participation vary over time and whether perceptions of participation impact retention over time.

The longitudinal design of the current study also allows us to address the question of whether asking about trauma affects youths' engagement with services. For example, service providers who see youth relatively infrequently may worry about a lack of stable alliance

with youth when asking about trauma exposure. Providers may be deterred from asking about trauma out of fear that adolescents will not return for follow-up appointments. The current study design mimicked common practice in that the pre-/post-treatment assessor, much like an intake clinician, did not provide the weekly intervention. Further, following the 12-week intervention, we had no contact with participants outside of the two-month and six-month follow-up interviews. Infrequent contact between the research team and participants (four assessment appointments spread out over one year) approximates scenarios where there is not a consistent provider-client relationship. By examining whether the benefits and costs of trauma research participation affect participants' willingness to return for additional appointments, we can begin to better understand the impact of asking about trauma on youth engagement with service providers.

## Method

### *Participants*

Adolescent females between the ages of 12 and 19 with current or past child welfare system involvement were referred by their case workers, service providers, or legal guardians. The research team worked with human services departments from multiple counties as well as community agencies that serve child welfare youth in Denver and surrounding areas. Teens received a letter from researchers about a Healthy Adolescent Relationships Project via their caseworker, foster parents, or service providers. Once the adolescent indicated interest in participating in the project, the research team facilitated acquisition of parental or DHS administrative consent (depending on the custody status of the young woman) for adolescents under age 18.

Teens consented into the study were randomized to participate in one of the two prevention groups. The prevention groups were testing curricula designed to decrease revictimization in teen dating relationships. One prevention curriculum focused on improving teens' risk recognition by targeting relevant cognitive abilities (e.g., noticing danger, planning and initiating responses) that may be impaired in youth and adults previously exposed to violence. The other curriculum utilized a social learning and feminist approach to build skills for developing healthy relationships, responding to societal and relationship pressures that can lead to violence and abuse, and increasing competency through social action. Teens participated in one of the two groups if they met the following criteria: (1) no current suicidal ideation; (2) concurrent treatment if teens reported suicide

attempts or psychiatric hospitalizations in the last three to six months; and (3) concurrent treatment if teens reported current self-harm behavior or psychosis. Based on these criteria, we received 214 referrals, of whom 180 (84%) completed an interview at Time 1. Figure 1 illustrates the participant flow through the study.

### *Materials*

Demographic information about each participant was collected, including academic history and performance, out-of-home placement history, services received, and family socioeconomic status.

Participants' responses to research participation were assessed with the Response to Research Participation Questionnaire (RRPQ; Newman & Kaloupek, 2004, 2009). Three factors (Personal Benefits, Global Evaluation, and Participation) tap positive aspects of the research experience, including perceptions of personal benefits. Specifically, the Personal Benefits scale taps benefits to the individual, such as gaining insight or meaning. Sample items include: I gained insight into my experiences through research participation; I found participating in this study personally meaningful. The Global Evaluation scale taps beliefs about the importance of the research and the integrity of the research process. Sample items include: I was treated with respect and dignity; I trust that my replies will be kept private. The Participation scale taps the participants' perceptions of the value of the trauma-related research and the participants' beliefs about empowerment to stop the research. Sample items include: I like the idea I contributed to science; I felt I could stop participating at any time.

Two factors (Perceived Drawbacks and Emotional Reactions) tap negative aspects of the research, including costs and unanticipated, negative emotional reactions. The Perceived Drawbacks scale taps regret and negative perceptions about the research procedures. Sample items include: I found participating boring; the study procedures took too long. The Emotional Reactions scale taps unexpected and negative emotions during participation. Sample items include: The research raised emotional issues for me that I had not expected; I was emotional during the research session. Averages for each of the five factor scales were calculated. Cronbach's alphas across the four time points ranged from 0.72 to 0.80 for the Personal Benefits scale; from 0.78 to 0.91 for the Global Evaluation scale; from 0.68 to 0.84 for the Participation scale; from 0.69 to 0.72 for the Perceived Drawbacks scale; and from 0.72 to 0.84 for the Emotional Reactions scale. The low alphas may likely reflect the fact that there are only four to six items for each factor scale. Despite the low alphas, we report on analyses with these subscales given that the

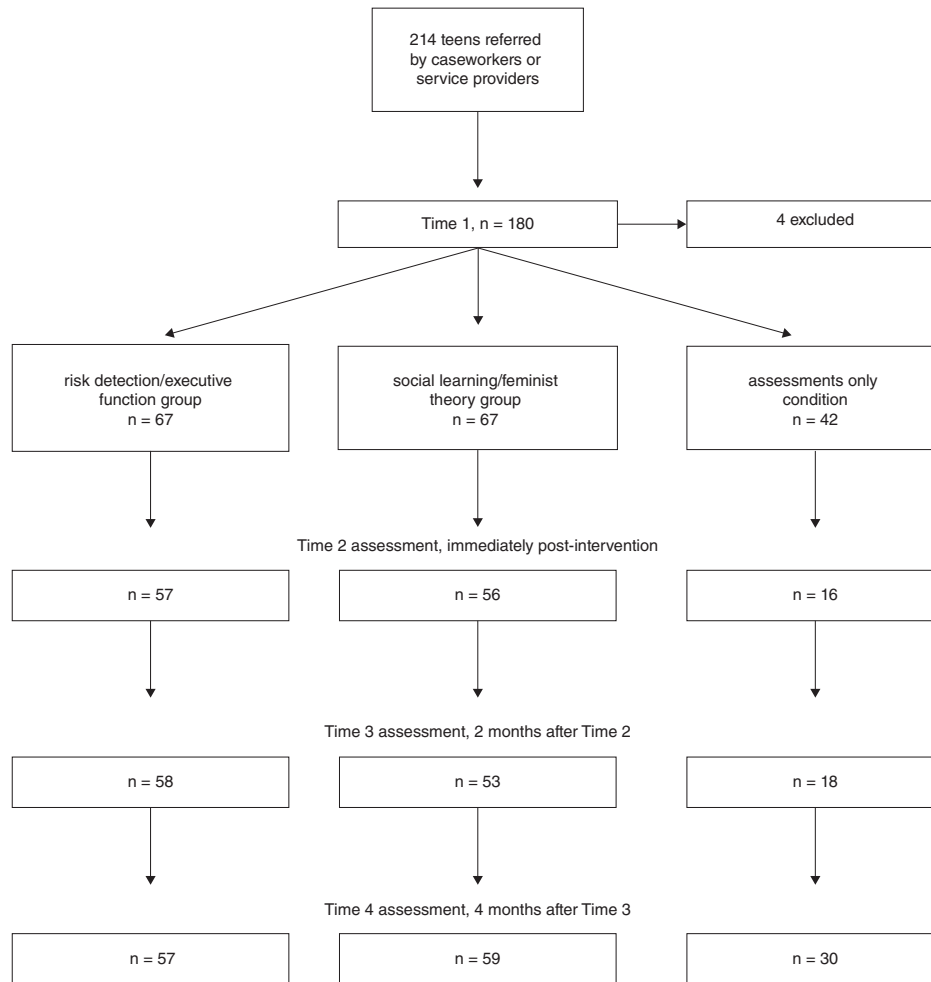


FIG 1. Flow of Participants through the Study. \* = 4 Teens Excluded Due to Not Meeting Inclusion Criteria.

alphas were not consistently low across time points and the measure has been used extensively. However, results should be interpreted cautiously.

Previous exposure to trauma was assessed using the Traumatic Events Screening Inventory—Child version (TESI; National Center for PTSD/Dartmouth Child Trauma Research Group, 1996). The TESI is a 24-item scale that uses behaviorally defined items to assess exposure to a variety of events, including injuries, domestic violence, community violence, accidents, physical victimization, and sexual victimization. Internal consistency for the measure is quite good (Ford et al., 2000; Davis et al., 2000). At Time 1, details for the first, most recent, and most stressful episode over the participant's lifetime for each category of events were assessed. Details surrounding the incidents included perpetrator relationship and frequency of violence exposure. At each follow-up time point, any episode for each category of events that occurred since the last interview was assessed.

PTSD symptoms were assessed using the Trauma Symptom Checklist for Children (TSCC; Briere, 1996). The TSCC assesses symptoms commonly associated with the experience of traumatic events across various domains. Participants in this study responded to items corresponding to anger, anxiety, dissociation, and post-traumatic stress symptoms. Participants indicated how frequently they experience each item on a scale of 0 (never) to 3 (often). Each of the TSCC subscales is scored by summing responses, and has good psychometric properties (Briere, 1996). The total TSCC score was used for current analyses; coefficient alphas for this sample were 0.95 for each time point.

#### *Procedure*

Once the research team received the signed consent form from the legal guardian of adolescents under age 18 or calls from adolescents age 18 or 19, research staff invited

potential participants to be part of the Healthy Adolescent Relationships Project. Teens were told about potentially participating in a prevention group and invited to attend a three-hour interview as an initial assessment.

Participants were greeted by a graduate-level interviewer or the project manager. During the assent/consent process, adolescents were informed about the scope of the study (including assessment of exposure to interpersonal trauma) as well as their rights as participants in both written and verbal formats. The interviewer administered an “assent/consent quiz” designed to assess understanding of the assent/consent information during the assent/consent process. Adolescents were considered assented/consented into the study if they answered the quiz questions correctly and provided written assent/consent (depending on their age). Notably, every participant in this sample passed the consent quiz. Following assent/consent procedures, participants completed the assessment interview. At the end of the session, participants completed questions to monitor responses to study procedures.

After the initial assessment session, participants were randomly assigned to one of two prevention groups. Each group session lasted one and a half hours. The groups took place every week over 12 weeks. After completion of the groups, adolescents were invited back for three additional assessments: immediately post-prevention group, and two and six months after the prevention group. The post-prevention group assessment occurred as close to the last group meeting as possible.

Pre-, post-, two-month, and six-month assessments were all administered one on one by graduate-level research staff who were blind to randomization condition. At the end of each interview, teens were compensated \$40 for their time and \$10 to help cover transportation costs. At the end of the Time 1 interview, teens were offered a newsletter that provided referrals to community agencies dealing with health and violence issues. All study procedures and measures were reviewed and approved by a university-based institutional review board.

## Results

Demographic data for the 180 teens who participated at Time 1 demonstrate that this is a diverse sample in terms of racial/ethnic background, sexual orientation, family socioeconomic status, placement history, and school setting (see Tables 1 and 2). Specifically, teens’ ages ranged from 12–19, with a mean age of 15.85 ( $SD=1.58$ ). Of the 152 teens who indicated their race, 36% were White/Caucasian, 36% were Black/African-American, 7% were American Indian/Native Alaskan/Native American, 3% were Asian/Asian-American, and 18% classified their race as Other. Additionally, of 178

teens who identified their ethnicity, 37% identified as Hispanic/Latina, 58% as Not Hispanic/Latina, and 3% declined to answer. In terms of sexual orientation, 77% of teens identified as Heterosexual/Straight, 18% as Bisexual/Pansexual, 4% as Not sure, 3% as Lesbian/Gay, 1% as Other, and 1% as Asexual. The majority of teens (89%) were currently in middle school, high school, or completing GED coursework at Time 1. Roughly 2% of teens were in the 6th or 7th grade, 10% in the 8th grade, 15% in the 9th grade, 17% in the 10th grade, 19% in the 11th grade, 16% in the 12th grade, and 10% currently doing GED coursework. Median grade reported for the last school grade completed was 9th grade. We asked teens to describe all of the schools they had attended. Approximately 81% of teens reported having attended public school at some point in their lives. In addition, 29% reported attending alternative school, 19% school at a residential treatment center, 16% school at day treatment, 16% online school, 11% GED courses, 9% private school, 6% other school settings, 6% home school, 2% vocational training, 2% college, and 1% job corps. At the Time 1 interview, 6% of teens were not attending school of any type. Teens reported their current place of residence as follows: 27% were with their biological/natural family, 23% were in a foster home, 17% were in a group home, 12% were in a residential treatment facility, 4% were in an independent living program, 6% were with relatives, 3% were on their own, 3% were with an adoptive family, and 4% declined to answer.

TABLE 1. Sample Demographic Characteristics.

	N	%
<b>Ethnicity</b>		
Hispanic/Latina	67	37.6
Not Hispanic/Latina	105	59.0
<b>Race</b>		
Black/African-American	54	35.5
White/Caucasian	54	35.5
Asian/Asian-American	4	2.6
Native American/Native Alaskan	11	7.2
Other	28	18.4
<b>Sexual Orientation</b>		
Heterosexual/Straight	139	77.2
Lesbian/Gay	5	2.8
Bisexual/Pansexual	32	17.8
Asexual	1	0.6
Not sure	7	3.9
Other	2	1.1
<b>Family Socioeconomic Status</b>		
Working Class	51	28.5
Middle Class	86	48.0
Upper Middle Class	22	12.3
Upper Class	3	1.7



TABLE 2. Sample Education and Placement Characteristics.

	N	%
<b>Education</b>		
Middle School	22	12.4
High School	119	66.8
GED	18	10.1
Other	19	10.7
<b>School Settings</b>		
Alternative School	53	29.4
Residential Treatment Center	35	19.4
Day Treatment	28	15.6
Online School	28	15.6
GED Courses	19	10.6
Private School	16	8.9
Home School	10	5.6
Vocational Training	4	2.2
College	3	1.7
Job Corps	1	0.6
Other School Settings	11	6.1
<b>Current Placement</b>		
Biological/Natural Family	48	27.7
Foster Home	41	23.7
Group Home	31	17.9
Residential Treatment Facility	22	12.7
Independent Living Program	8	4.6
Relatives	11	6.4
On My Own	6	3.5
Adoptive Family	6	3.5

**Note:** Numbers in subcategories of school settings may add up to greater than total number of teens because teens could pick as many options as apply.

In terms of trauma histories, 43% of teens reported having experienced physical abuse, 47% had experienced sexual abuse, 71% had witnessed domestic violence, 39% had experienced emotional/psychological abuse, and 43% had experienced neglect. The average age of onset was 5.56 ( $SD = 4.39$ ) and the average number of perpetrators was 2.51 ( $SD = 1.99$ ).

Of the 176<sup>1</sup> teens who were eligible to return for follow-up visits, 73% ( $n = 129$ ) of teens returned for a Time 2 assessment, 73% ( $n = 129$ ) returned for a Time 3 assessment, and 83% ( $n = 146$ ) returned for a Time 4 assessment. Teens did not have to complete the assessment at Time 2 in order to be contacted for Time 3, and similarly teens did not have to complete assessment(s) at Time 2 and/or Time 3 in order to be contacted for Time 4. The number of teens who completed at least one follow-up assessment represented 94% ( $n = 165$ ) of the Time 1 sample.

To assess the perceived costs and benefits of participating in this research, we first compared each subscale mean

score to 3, the neutral point on the scale (1=strongly disagree; 5=strongly agree). At all time points scores on the three positive factors (Participation, Personal Benefits, and Global Evaluation) were significantly greater than 3 (neutral point), indicating agreement with statements indicative of positive gains and experiences in the study. Scores on the negative factors (Perceived Drawbacks and Emotional Reactions) were significantly less than 3, indicating disagreement with statements that tap unexpected or negative emotional reactions and inconveniences caused by the study at all time points. See Table 3 for mean scores for the five subscales.<sup>2</sup>

Next, we calculated four benefit-to-cost ratio variables by subtracting negative RRPQ subscale scores from positive RRPQ subscale scores. The four benefit-to-cost ratio variables were Personal Benefits minus Emotional Reactions, Personal Benefits minus Perceived Drawbacks, Global Evaluation minus Emotional Reactions, and Global Evaluation minus Perceived Drawbacks. Larger and more positive difference scores indicate more positive benefit-to-cost ratios, while smaller and more negative scores indicate more negative benefit-to-cost ratios. See Table 3 for descriptive statistics on the benefit-to-cost ratio scores. The benefit-to-cost ratios were positive across all four time points. These results demonstrate that the research assessments took place within a positive benefit-to-cost ratio and that the positive benefit-to-cost ratio was maintained throughout the course of the study.

We then examined whether responses to research participation predicted retention at the next interview time point while controlling for PTSD symptoms that had the potential to influence retention. Using logistic regression, the five RRPQ subscale scores and total TSCC scores were entered into a model predicting whether participants returned for an interview at the next time point or not. The model for whether responses to participation and symptoms at Time 1 were related to retention at Time 2 was not significant ( $\chi^2(6) = 6.19, p = .40$ ). The models for Time 2 responses to participation and symptoms predicting retention at Time 3 ( $\chi^2(6) = 6.84, p = .34$ ) and Time 4 ( $\chi^2(6) = 10.23, p = .12$ ) were also not significant.

## Discussion

The current study mimicked common practice where service providers try to engage at-risk youth in services (in this case around healthy relationships) and screen for trauma exposure at intake prior to the start of services and over time as services continue. In this context, consistent with previous research, adolescent girls rated the

<sup>1</sup> Four teens were excluded after Time 1 due to not meeting inclusion criteria for prevention groups.

<sup>2</sup> Please see the supplementary online document for inter-item correlations for the RRPQ at each time point.

benefits of participating in trauma-focused research as greater than the costs. Adolescents in the current study were involved in the child welfare system and referred by caseworkers or other service providers for participation in a healthy adolescent relationship project study that involved four interviews and participation in a 12-week healthy relationship class. During the consent process, participants learned that they would be asked about their own interpersonal trauma exposure during each of the four interviews. None of the teens declined to participate after learning that they would be interviewed about their experiences of interpersonal trauma exposure. Importantly, teens reported positive cost-benefit ratios after the research session, meaning that they viewed the positive aspects of participation as greater than the negative aspects. Thus, these data demonstrate that the benefits of trauma-focused research can outweigh the costs among adolescent girls from the child welfare system who have faced considerable adversity and maltreatment in their young lives. These findings are consistent with a recent study with a sample of female survivors of intimate partner abuse who were also not expecting to be interviewed extensively about their violence exposures (Hebenstreit & DePrince, 2012). Women exposed to intimate partner abuse reported favorable cost-to-benefit ratios after participating in the study, which involved gathering in-depth information about their trauma experiences.

The longitudinal design of the current study also allowed us to evaluate factors that could affect retention over time. We found that participants reported stable and favorable benefit-to-cost ratios across four time points; those interviews occurred over an average of one year. Results also showed that retention rates remained

consistent at each interview time point. These patterns suggest that participants' perceptions of participating in research did not become more negative over time, and that participants did not decide to drop out of the study despite reporting positive benefit-to-cost ratios. Importantly, we also examined whether perceptions of participation and symptom severity had an impact on self-selection for follow-up interviews. For example, participants who experience more severe PTSD symptoms may find discussing their trauma histories more difficult than their peers; this could lead to negative perceptions of participation and attrition. However, PTSD symptoms and perceptions of research participation did not predict retention at any follow-up time points. Hebenstreit and DePrince (2012) also failed to find links between negative scale scores on the RRPQ, severity of a recent intimate partner abuse incident, PTSD symptoms, and retention six months and one year after an initial assessment. A recent treatment study also found that perceptions of participating in a pre-treatment assessment of trauma and post-traumatic stress symptoms did not impact treatment retention or outcome (Resick et al., 2009). Indeed, Schwerdtfeger (2009) found that pregnant women with a sexual trauma history who reported higher trauma symptom scores were *more* likely to agree to participate in a follow-up personal interview.

### Best Practices

The current study documents favorable benefit-to-cost ratios in adolescents' perceptions of participation in trauma-focused research. Importantly, this sample

TABLE 3 Mean (SD) Scores for Subscales on the RRPQ by Time Point.

	Time 1 n = 171		Time 2 n = 126		Time 3 n = 123		Time 4 n = 143	
	Mean	SD	Mean	SD	Mean	SD	Mean	SD
RRPQ Positive Subscales								
Personal Benefits (PB)	3.84	0.66	3.99	0.85	3.93	0.80	4.10	0.69
Participation	4.29	0.67	4.37	0.72	4.35	0.79	4.44	0.66
	n = 165						n = 140	
Global Evaluation (GE)	4.53	0.53	4.46	0.70	4.47	0.69	4.51	0.61
RRPQ Negative Subscales								
Emotional Reactions (ER)	2.51	0.87	2.34	1.00	2.20	0.93	2.27	1.00
Perceived Drawbacks (PD)	1.95	0.59	1.95	0.65	1.92	0.64	1.92	0.69
RRPQ Benefit-to-Cost Ratios								
PB - ER	1.33	0.98	1.64	1.19	1.73	1.19	1.83	1.23
PB - PD	1.89	1.07	2.04	1.28	2.01	1.27	2.18	1.23
GE - ER	2.02	1.03	2.12	1.30	2.27	1.26	2.24	1.27
GE - PD	2.58	0.97	2.51	1.19	2.55	1.20	2.59	1.18

Note: 1=strongly disagree, 3=neutral, 5=strongly agree. Where data are missing, the sample size is indicated in the table.

was recruited from the adolescent girls who came to the attention of the child welfare system to participate in a healthy adolescent relationship project that involved classes focused on relationships. As such, the project has important implications for service providers seeking to engage high-risk youth in services, particularly as service providers are more often encouraged/expected to assess trauma exposure as part of routine healthcare (e.g., Allen et al., 2007). Despite this growing expectation, Allen and colleagues (2007) found that fewer than half of providers from community-wide health centers consistently screened patients/clients for trauma exposure. The current study provides information from a similar context where a patient or client may not anticipate being interviewed about interpersonal trauma exposure. Results from the current study demonstrate that youth generally report greater benefits as compared to costs after discussing violence exposure in an assessment prior to starting a healthy relationship class. Though the current study did not involve a clinical sample, the majority of teens reported extensive childhood maltreatment or neglect and significant adversity (e.g., transitions in living situations across multiple types of residences; changing school settings; loss of caregivers). Thus, results indicate that assessing for interpersonal trauma histories does not appear to exacerbate distress even for youth facing high levels of life stress or negatively impact engagement with youth facing multiple forms of adversity.

### Research Agenda

The majority of research that has examined perceptions of participating in trauma research has been cross-sectional in design. Researchers have minimal information upon which to address the challenges of retaining trauma survivors in longitudinal studies, particularly when asking participants to discuss their trauma experiences in depth. With the exception of Hebenstreit and DePrince (2012), the degree to which retention might be affected by individual factors as well as perceptions of participating in research has not been directly examined. The current study helped to address this gap by showing that asking about trauma histories does not impact research retention.

In having established that trauma-related research does not result in unfavorable cost-benefit ratios for participants with a body of empirical findings, future research is needed to focus on examining the role of various factors in maximizing favorable cost-benefit ratios for research participation. For example, DePrince and Chu (2008) and Schwerdtfeger (2009) examined methodological factors that minimize costs and maximize benefits for participants.

Both studies found that participants reported more favorable perceptions in participating in trauma-related interviews as compared to anonymous self-report questionnaires.

As Blanton and Jaccard (2006) noted, metrics on many psychological tests can be arbitrary such that interpretation of scores from any psychological measure needs to be well thought out. Though the RRPQ contains negative and positive subscales that allow researchers to assess for costs and benefits of participating in research, we do not know with any certainty that the units of measurement for the negative subscales equal the units on the positive subscales. Thus, it remains important for researchers to continue thinking about ways to anchor psychological measures of research participation reactions to meaningful interpretations.

The current study focused on group-level changes in the benefit-to-cost ratio over time, though alternate ways of assessing responses to research participation have been used. For example, some previous work focuses on individual participants who reported something potentially negative, such as feeling as if they had to participate in the research study (e.g., Hebenstreit & DePrince, 2012; Ruzek & Zatzick, 2000). Future research that continues to balance understanding individual and group-level responses will be helpful in order to further minimize potential distress in participating in trauma research.

### Educational Implications

Institutional review boards may lack empirical information upon which to guide their decisions regarding the risks and benefits of conducting trauma-related research. Trauma researchers have noted the lack of empirical findings to suggest that trauma survivors need unique protections in participating in research above the standards set for all ethical research (Cromer & Newman, 2011; Newman & Kaloupek, 2009). Some studies have even found that participants perceive questions about seemingly neutral, but personal, topics (e.g., grade point averages) to be more concerning than questions about child abuse (Cromer et al., 2006).

Data from the current study can also be used to educate colleagues that asking about trauma histories in samples that involve youth facing considerable adversity can be accomplished within a very stable benefit-to-cost ratio, consistent with studies of adults. In fact, many survivors report a sense of in personal benefits and helping others (e.g., Schwerdtfeger, 2009). Additionally, providers can be trained to ask about trauma in a careful and compassionate manner, even when clients may not be expecting to discuss their trauma experiences. In



these contexts, it is possible for clients to remain engaged with service providers even outside of a strong therapeutic alliance.

### Acknowledgments

This project was funded by Award # 2009-MU-MU-0025 from the National Institute of Justice, Office of Justice Programs, U.S. Department of Justice. The opinions, findings, and conclusions or recommendations expressed in this publication are those of the authors and do not necessarily reflect those of the Department of Justice. The authors thank the Denver area community agency partners and in particular the teens who participated in this study.

### Author Note

Address correspondence to: Ann T. Chu, Department of Psychology, University of Denver, 2155 South Race Street, Denver, CO 80208. Phone: 303-871-3703; Fax: 303-871-4747; E-MAIL: annchu09@gmail.com.

### Authors' Biographical Sketches

**Ann T. Chu** is a licensed clinical psychologist and Assistant Clinical Professor in the Child Clinical program in the Psychology Department at the University of Denver. She and DePrince collaborate to conduct trauma-related research studies with youth and adult survivors of trauma. They also investigate various dimensions of participant responses to trauma research, including perceptions of minimal risk and cost-benefit ratios.

**Anne P. DePrince** is Associate Professor in the Psychology Department at the University of Denver (DU), where she contributes to the Child Clinical, Cognitive, and Developmental Cognitive Neuroscience programs. She also serves as the Director of DU's Center for Community Engagement and Service Learning. Her research program focuses on the emotional and cognitive correlates of interpersonal violence including sexual assault, intimate partner violence, child abuse, and family violence. She also studies the impact of participating in research on survivors of trauma.

### References

- ALLEN, N. E., LEHRNER, A., MATTISON, E., MILES, T., & RUSSELL, A. (2007). Promoting systems change in the health care response to domestic violence. *Journal of Community Psychology, 35*, 103–120.
- AMAYA-JACKSON, L., REYNOLDS, V., MURRAY, M. C., MCCARTHY, G., NELSON, A., CHERNEY, M. S., ET AL. (2003). Cognitive-behavioral treatment for pediatric posttraumatic stress disorder: Protocol and application in school and community settings. *Cognitive and Behavioral Practice, 10*, 204–213.
- BARBE, R. P., BRIDGE, J. A., BIRMAHER, B., KOLKO, D. J., & BRENT, D. A. (2004). Lifetime history of sexual abuse, clinical presentation, and outcome in a clinical trial for adolescent depression. *Journal of Clinical Psychiatry, 65*, 77–83.
- BECKER-BLEASE, K. A. & FREYD, J. J. (2006). Research participants telling the truth about their lives: The ethics of asking and not asking about abuse. *American psychologist, 61*, 218–226.
- BLANTON, H. & JACCARD, J. (2006). Arbitrary metrics in psychology. *American Psychologist, 61*, 27–41.
- BRIERE, J. (1996). *Trauma Symptom Checklist for Children (TSCC) professional manual*. Odessa, FL: Psychological Assessment Resources.
- CARLSON, E. B., NEWMAN, E., DANIELS, J. W., ARMSTRONG, J., ROTH, D., & LOWENSTEIN, R. (2003). Distress in response to and perceived usefulness of trauma research interviews. *Journal of Trauma and Dissociation, 4*, 131–142.
- CHU, A. T., DEPRINCE, A. P., & WEINZIERL, K. M. (2008). Children's perception of research participation: Examining trauma exposure and distress. *Journal of Empirical Research in Human Research Ethics, 3*, 49–58.
- COHEN, J. A., MANNARINO, A. P., MURRAY, L. K., & IGELMAN, R. (2006). Psychosocial interventions for maltreated and violence-exposed children. *Journal of Social Issues, 62*, 737–766.
- CROMER, L. D., FREYD, J. J., BINDER, A. K., DEPRINCE, A. P., & BECKER-BLEASE, K. (2006). What's the risk in asking? Participant reaction to trauma history questions compared with reaction to other personal questions. *Ethics and Behavior, 16*, 347–362.
- CROMER, L. D. & NEWMAN, E. (2011). Research ethics in victimization studies: Widening the lens. *Violence Against Women, 17*, 1536–1548.
- DAVIS, W. B., MOONEY, D., RACUSIN, R., FORD, J. D., FLEISCHER, A., & MCHUGO, G. (2000). Predicting post-traumatic stress after hospitalization for pediatric injury. *Journal of the American Academy of Child and Adolescent Psychiatry, 39*, 576–583.
- DEPRINCE, A. P. & CHU, A. T. (2008). Perceived benefits in trauma research: Examining methodological and individual difference factors in responses to research participation. *Journal of Experimental Research on Human Research Ethics, 3*, 49–58.
- DEPRINCE, A. P. & FREYD, J. J. (2004). Costs and benefits of being asked about trauma history. *Journal of Trauma Practice, 4*, 23–35.

- FORD, J., RACUSIN, R., ELLIS, C., DAVISS, W.B., REISER, J., FLEISCHER, A., & THOMAS, J. (2000). Child maltreatment, other trauma exposure, and post-traumatic symptoms among children with oppositional defiant and attention deficit hyperactivity disorders. *Child Maltreatment, 5*, 205–217.
- GRIFFIN, M. G., RESICK, P. A., WALDROP, A. E., & MECHANIC, M. B. (2003). Participation in trauma research: Is there evidence of harm? *Journal of Traumatic Stress, 16*, 221–227.
- HEBENSTREIT, C. & DEPRINCE, A. P. (2012). Perceptions of trauma research in women exposed to intimate partner abuse. *Journal of Empirical Research on Human Research Ethics, 7*, 60–69.
- KASSAM-ADAMS, N. & NEWMAN, E. (2002). The Reactions to Research Participation Questionnaires for Children and for Parents (RRPQ-C and RRPQ-P). *General Hospital Psychiatry, 24*, 336–342.
- KASSAM-ADAMS, N. & NEWMAN, E. (2005). Child and parent reactions to participation in research following pediatric traumatic injury. *General Hospital Psychiatry, 27*, 29–35.
- LEWIS, C. C., SIMONS, A. D., NGUYEN, L. J., MURAKAMI, J. L., REID, M. W., SILVA, S. G., & MARCH, J. S. (2010). Impact of childhood trauma on treatment outcome in the Treatment for Adolescents with Depression Study (TADS). *Journal of the American Academy of Child and Adolescent Psychiatry, 49*, 132–140.
- NAJAVITS, L. M., WEISS, R. D., SHAW, S. R., & MUENZ, L. R. (1998). “Seeking Safety”: Outcome of a new cognitive-behavioral psychotherapy for women with posttraumatic stress disorder and substance dependence. *Journal of Traumatic Stress, 11*, 437–456.
- National Center for PTSD/Dartmouth Child Trauma Research Group. (1996). *Traumatic events screening inventory version 8.3*. Hanover, NH: Dartmouth Hitchcock Medical Center.
- NEMEROFF, C. E., HEIM, C. M., THASE, M. E., KLEIN, D. N., RUSH, A. J., SHATZBERG, A. F., ET AL. (2003). Differential response to pharmacotherapy in patients with chronic forms of major depression and childhood trauma. *Proceedings of the National Academy of Science, 100*, 14293–14296.
- NEWMAN, E. & KALOUPEK, D. G. (2004). The risks and benefits of participating in trauma-focused research studies. *Journal of Traumatic Stress, 17*, 383–394.
- NEWMAN, E. & KALOUPEK, D. G. (2009). Overview of research addressing ethical dimensions of participation in traumatic stress studies: Autonomy and beneficence. *Journal of Traumatic Stress, 22*, 595–602.
- NEWMAN, E., WALKER, E. A., & GEFLAND, A. (1999). Assessing the ethical costs and benefits of trauma-focused research. *General Hospital Psychiatry, 21*, 187–196.
- RESICK, P. A., IVERSON, K. M., & ARTZ, C. E. (2009). Participant reactions to a pretreatment research assessment during a treatment outcome study for PTSD. *Journal of Traumatic Stress, 22*, 316–319.
- RUZEK, J. I. & ZATZICK, D. F. (2000). Ethical considerations in research participation among acutely injured trauma survivors: An empirical investigation. *General Hospital Psychiatry, 22*, 27–36.
- SCHWERTFEGGER, K. L. (2009). The appraisal of quantitative and qualitative trauma-focused research procedures among pregnant participants. *Journal of Empirical Research on Human Research Ethics, 4*, 39–51.
- SCHWERTFEGGER, K. L. & NELSON GOFF, B. S. (2008). The effects of trauma-focused research on pregnant female participants. *Journal of Empirical Research on Human Research Ethics, 3*, 59–67.
- SCOTTI, J. R., STEVENS, S. B., JACOBY, V. M., BRACKEN, M. R., FREED, R., & SCHMIDT, E. (2012). Trauma in people with intellectual and developmental disabilities: Reactions of parents and caregivers to research participation. *Intellectual and Developmental Disabilities, 50*, 199–206.
- SHIRK, S. R., KAPLINSKI, H., & GUDMUNDSEN, G. (2009). School-based cognitive-behavioral therapy for adolescent depression: A benchmarking study. *Journal of Emotional and Behavioral Disorders, 17*, 106–117.
- SHOREY, R. C., CORNELIUS, T. L., & BELL, K. (2011). Reactions to participating in dating violence research: Are our questions distressing participants? *Journal of Interpersonal Violence, 26*, 2890–2907.
- WALKER, E. A., NEWMAN, E., KOSS, M., & BERNSTEIN, D. (1997). Does the study of victimization revictimize the victims? *General Hospital Psychiatry, 19*, 403–410.
- WEITLAUF, J. C., RUZEK, J. I., WESTRUP, D. A., LEE, T., & KELLER, J. (2007). Empirically assessing participant perceptions of the research experience in a randomized clinical trial: The Women’s Self-Defense Project as a case example. *Journal of Empirical Research on Human Research Ethics, 2*, 11–24.