MC

Title Page

Title: *Safe Transitions for Teens: Assessing the Impact of Intimate Partner Transitional Housing on Adolescent Residents*

Submission Date: May 10, 2022

Funding Opportunity Number: O-NIJ-2022-171197

Principal Investigator:
Leila Wood, PhD MSSW
The University of Texas Medical Branch

Co-Principal Investigator
Bethany Backes, PhD, MPH, MSW
The University of Central Florida

Key Words: Transitional housing, teen dating violence, juvenile justice, adverse childhood experiences, advocacy services

Applicant Institution:

The University of Texas Medical Branch at Galveston
301 University Blvd.
Galveston, TX 77555-0156
Sponsored.research@utmb.edu

Table of Contents

Included Appendices:

Team CVs and Advisory Team Biographies

Letters of Support and Site Information

References

Privacy Certificate

Preliminary Data Collection Tools and Measurement Overviews

Study Timeline

Human Subjects Information

Skill Matrix

Data Management Plan

Project Management Plan

Statement of the Problem

Adolescents exposed to intimate partner violence (IPV) are at high risk for other adverse experiences, including child maltreatment, bullying and peer violence, teen dating violence (TDV), creating the potential for polyvictimization experiences with significant public health consequences (Anderson et al., 2018; Espelage et al., 2018; Foshee et al., 2016; Karlsson et al., 2016; Palusci et al, 2020). Nearly 18% of US youth have been exposed to parent/guardian physical IPV in their lifetime (Hamby et al., 2010); alarming given that exposure to IPV negatively impacts physical, mental, and academic outcomes (Carlson et al., 2019; Chan & Yeung, 2009; Wolfe et al., 2003) and increases risk for child maltreatment (Anderson et al., 2018; Herrenkohl et al., 2008), substance misuse, and future TDV victimization and perpetration (Ehrensaft et al., 2003; Karlsson et al., 2016; Lohman et al., 2013; Temple et al., 2013). Adolescent exposure to IPV is also related to community violence and involvement in the juvenile justice system (JJS), which is one of the primary predictors for entry into the criminal justice system (Baldry, 2003; Foshee et al., 2016; Herrera & McCloskey, 2001; Huang et al., 2015). **Despite the substantial increase in likelihood for violence victimization and perpetration for adolescents who have been exposed to IPV, there is a gap in research on community-level interventions for teens to reduce risk factors and increase protective factors to prevent violence.**

Safe housing and supportive services, such as those offered in community-based IPV-focused agencies through IPV transitional housing programs (IPVTH), are potentially potent community interventions to reduce TDV and other youth violence but have not been evaluated to assess impacts on teen participants. Housing instability and homelessness are strongly associated with

IPV, child maltreatment, and TDV (Bai et al, 2019; Bassuk et al, 2014; Daoud et al., 2016; Rollins et al., 2012), reducing safety and destabilizing families. IPV agencies have long provided housing to youth and adolescents exposed to violence and their caregivers in both temporary emergency shelter and longer-term housing units, serving more than 25,000 youth a day in the United States, including more than 20,000 in housing programs (NNEDV, 2022). Longer-term housing supports provided by IPV agencies, such as IPVTH, are typically limited to 2 years or less and involve supportive advocacy services along with stable housing (Clark et al., 2019; Klein et al., 2019; Thomas et al, 2021). A preliminary examination of OVW funded IPVTH programs indicates that 20-25% of children served are between the ages of 12 and 17. However, to date there has been scant research about teens residing in IPV housing, despite the documented risks for teen homelessness, teen parental violence exposure, and future TDV victimization and perpetration. To address these gaps in knowledge, we will leverage our current Office on Violence Against Women (OVW) study examining the longitudinal impact of IPVTH on adult residents, *Safe Transitions*. *Safe Transitions* is a multi-state, longitudinal evaluation of IPVTH. We will leverage this study to recruit an adolescent cohort of IPVTH residents to examine the impact of this community housing intervention on violence reduction for youth.

The goal of the proposed project, **Safe Transitions for Teens**, is to gain understanding of the role of IPV-specific transitional housing and supportive services in interrupting risk and increasing protective factors related to interpersonal violence victimization and perpetration in a high-risk group of teens exposed to IPV. We will recruit the teenage children (n=250) ages 12-17 of parents enrolled in our *Safe Transitions* study. *Safe Transitions* is in the pilot year of data collection and has partnered with IPVTH programs in 5 states, with over 780 housing units, and 4 state coalitions with additional states and sites currently being added. Using a mixed method,

multi-generational, longitudinal approach, we will 1) examine the prevalence of sexual, physical, psychological, and cyber TDV, peer violence, bullying, and JJS involvement in a group of adolescents living in IPVTH and 2) test the impact of IPVTH intervention on teen and family risk and protective factors for teen violence, including parental safety from IPV. Specific objectives are to:

1. Assess prevalence rates and changes over time of **TDV victimization and perpetration** among adolescent 250 IPVTH residents recruited from parents enrolled in the current *Safe Transitions* study through longitudinal assessments spanning 24 months and semi-structured interviews.

   1b. Assess prevalence rates of **peer violence, bullying, and JJS** involvement among adolescent IPVTH residents.
2. Examine **intergenerational changes in risk and protective factors** for IPV and TDV, including parental safety from IPV, through linked analysis of adolescent participants in Safe Transitions for Teens and adult participants in *Safe Transitions*.
3. Examine **IPVTH housing program efficacy** to increase protective factors and decrease risk factors related to TDV, peer violence, bullying and JJS involvement through longitudinal survey assessments, interviews, and agency data review.

To achieve these objectives, we will 1) conduct semi-structured interviews with a subsample of 40 parents and 40 teen participants to understand experiences and refine survey and project design approaches; 2) recruit, survey, and prospectively follow 250 adolescents (ages 12–17) living in IPVTH with their parents enrolled in the *Safe Transitions* study for five assessments spanning 24 months; 3) conduct semi-structured interviews with 30 staff working with teen IPVTH residents; and 4) triangulate self-report teen and parent data with agency data on service

use. Qualitative data from interviews will inform study objectives and refine methods and quantitative measures. This project is responsive to both RFP focus areas of evaluation of VAW programs and VAW research. Specifically, we will use a longitudinal research design, capitalizing on an ongoing data collection effort (focus 1). Our focus on teens in IPVTH is responsive to NIJ's interest in research on risk for teens' involvement in abusive romantic relationships, examining the impact of IPVTH housing programs on TDV, and other forms of youth violence (focus 2). We will partner with IPVTH agencies and a research-practitioner advisory board, including the<redacted>, with extensive expertise in IPVTH, TDV, and JJS involvement to enhance the study design.

This study is highly innovative. By harnessing the opportunity of the ongoing *Safe Transitions* project focused on adults living in IPVTH, Safe Transitions for Teens will gain critical information about this often forgotten and high-risk group of adolescents. While IPVTH programs provide critical services to families who have experienced violence, they remain largely untested (Klein et al., 2019)—especially for programmatic impact among teen residents related to TDV, (re)exposure to adult IPV, and JJS involvement. Previous studies of general transitional housing programs have attended to IPV experiences (e.g., Family Options study, Allen 2017; Gubits et al., 2016), however, they have failed to include IPVTH sites or focus on teen residents; which is an important limitation given IPVTH's unique voluntary and survivor centered service model (Hetling et al., 2018) and the heightened risk for future violence for youth exposed to IPV. While the ongoing *Safe Transitions* project will provide a robust first look at *adult* survivor outcomes in IPVTH, the lack of research on IPV housing outcomes for *adolescent* residents is gravely concerning, especially considering their intensified risk factors and public health and safety benefits to reducing interpersonal violence in this population. This

study will be among the first to address the lack of knowledge about teens in IPVTH programs, and will be the first to assess the role of IPVTH on teen outcomes and teen-parent relationships.

Literature Review

Impact of IPV on Families and Adolescents. IPV interrupts stability and increases risk for all members of the family unit. Adult survivors often suffer from negative physical and mental health outcomes, as well as reduced economic and housing stability (Adams et al., 2013; Black et al., 2011; Brieding et al., 2017; Campbell, 2002; Clough et al., 2014). IPV also negatively impacts parenting, including decreased levels of positive parenting behaviors, increased abuse and neglect, and reduced family support, which all directly impact children (Chiesa et al, 2018; Chung et al., 2021; Postmus et al, 2012). Youth and parents experience disrupted relationships and impacts to the parent/child bond, which otherwise could function as an important protective factor for IPV exposed youth (Bair-Merrit et al, 2006; Carpenter & Stacks, 2009). Further, a vast majority of these youth are firsthand witnesses to violence, which is a robust predictor of poor mental and physical health and disruptions in school performance (Hamby et al., 2011; Huang et al, 2020; Supol et al., 2021).

Much of the literature reviewed above, and our current proposal, is informed by social learning theory (SLT; Bandura, 1971), which posits a strong and persistent link between youth exposure to IPV as a child or teen, experiences of child abuse and neglect, and teen TDV perpetration and victimization (Cheung & Huang, 2022; Jouriles et al., 2012; Karlsson et al., 2016; Temple et al., 2013). Over 56% of youth who have been exposed to IPV have also experienced child maltreatment, magnifying the negative mental health and relational impacts, and contributing to polyvictimization of adolescents across developmental stages, as well as increasing the risk for future interpersonal violence perpetration and victimization (Hamby et al.,

2011). SLT further posits that human behavior is at least partly learned, as opposed to being completely biologically "hardwired', and that it is particularly influenced by close social and cultural contexts along with cognitive and self-reflective functions (Bandura, 1973; Corvo, 2006). Behavior can be influenced by antecedent inducements, including the home environment and messaging in the family system, and response feedback, all of which are impacted by the family context (Anderson & Kras, 2007). Given the opportunity to have sustained influence on youth and their families, IPVTH programs, with a community focus on family support, stability, and resourcing, could serve as a critical intervention to disrupt patterns of interpersonal violence victimization and perpetration for their teen residents (Armstead et al., 2018).

Risk and Protective Factors Contributing to Interpersonal Violence in IPV-Exposed Youth

Adolescent experiences of interpersonal violence, such as TDV, bullying, and peer violence victimization and perpetration, as well as subsequent JJS involvement, share several risk and protective factors at multiple levels of the social ecology (i.e., individual, family, peer, community, and societal level). Risk factors include substance misuse, mental and physical health challenges, housing and economic instability, unsafe school climates, and racism (Chandler et al., 2020; Parker et al., 2017; Roberts et al., 2018; Wilkins et al., 2018). In line with a social learning perspective, exposure to parental IPV increases risk of TDV victimization and perpetration (Karlsson et al., 2016; Temple et al., 2013) and is associated with involvement in the JJS or delinquency (Herrera & McCloskey, 2001; Huang et at., 2015). Indeed, the vast majority of JJS involved youth have experienced trauma, with most experiencing multiple types of trauma (Abram et al., 2004; Malvaso et al., 2021), and IPV is among the most common type of trauma exposure for these youth (Dierkhising et al, 2013). In addition to a direct relationship between IPV exposure and TDV, exposure to IPV is linked to outcomes that may lead to JJS

involvement, including substance use and aggression (Ingram et al, 2021; Margolin & Gordis, 2000; Mejia et al, 2006). Community characteristics, including violence and poverty, have also been associated with risk and resilience surrounding the sequela of violence (Armstead et al., 2019; David-Ferdon et al., 2016; Jolliffe et al., 2017). These risk factors have been further exacerbated by the COVID-19 pandemic, as youth are facing increased mental health problems, and experiencing higher rates of interpersonal violence and reduced access to services (Ragavan et al., 2020; Stavridou et al., 2020).

Shared **protective** factors of teen violence at the individual, family, peer, community, and societal level include including posttraumatic growth, coping skills, positive social support, quality parenting practices, health relationship skills, economic/housing stability, and community resource access (Armstead et al, 2018; Meyerson et al., 2011). Peer and school factors include peer norms and school climate (Carlson et al., 2019; David-Ferdon et al., 2016; Leve et al., 2015; Hébert et al., 2019; Vagi et al., 2013). At the community and societal level, protective factors include access to quality care, education to shift social norms, family-based programming, community support, coordination of resources, and policies to strengthen economic stability of families (Armstead et al., 2018; David-Ferdon et al., 2016; Niolon et al., 2017). Housing remedies are recognized as a community level approach to preventing and reducing interpersonal violence by increasing safety and reducing harm (Niolon et al., 2017), but have not been tested for potential benefit in addressing TDV and other harms that may contribute to JJS.

IPV, Families, and Housing

Housing insecurity and homelessness are common results of IPV for families, in part because of the need to separate from the abusive partner, as well as the economic impact of violence, financial abuse and employment disruption (Klein et al., 2019; Rizo et al., 2020;

Sullivan et al., 2016). This intensified during the COVID-19 pandemic, when job loss and increases in IPV led to increased risk for housing insecurity (Nnawulezi & Hacskaylo, 2021; Wood et al., 2021a). Housing insecurity includes being unable to make rent or mortgage payments, frequent moves, and repeated housing denials, and has been demonstrated to increase the risk for adverse experiences in adolescence, as well as predict an increased risk of foster care involvement (Bai et al., 2019; Clough et al., 2014; Marcal, 2018). IPV service agencies often respond to this need through the provision of emergency shelter, which typically links to other services. Shelter programs typically provide housing for 30–90 days (Stylianou & Pich, 2019). Shelter and housing are the most requested and unmet IPV service (NNEDV, 2022; Rollins et al., 2012; Wood et al., 2019). However, in many cities, there is a lack of shelter and housing availability for fleeing families, necessitating cycles of housing insecurity which contributes to family instability and negative teen outcomes (Bovell-Ammon et al., 2021; Bai et al., 2019; Clough et al., 2014; Gezinski & Gonzalez-Pons, 2019; Marcal, 2018). Even for those who are able to access shelter, the transition out of shelter to more permanent housing has been identified as a major challenge for many survivors with accompanying children, due to the long term economic and familial impacts of violence (Baker et al., 2010; Wood et al., 2019), which became harder after the COVID-19 pandemic, as both shelter and housing units were reduced (Wood et al., 2020a). While there is a lack of research on the efficacy of IPVTH for reducing violence for teen residents, previous research has underscored the role of housing in youth stability more broadly. Housing stress is associated with increased child maltreatment, CPS involvement, and death, with housing programs significantly reducing abuse/neglect and enhancing family stability (Chandler et al., 2020; Fowler et al., 2018; Fowler et al., 2015; Mbiliny, 2015).

IPV Transitional Housing. To address these challenges, IPV service agencies have developed longer-term programs aimed at establishing stability for families exiting emergency shelter with persistent support needs. IPVTH programs vary in style and scope, but usually include a 6-24 month stay in an individual family apartment or housing unit operated by an IPV program or funded through program resources. These services typically adopt a "housing first" approach, seeking to address a family's need for housing prior to focusing on additional needs of parent and children, including mental and physical health, academic stability, and employment (Bai et al., 2019; Nnawulezi et al., 2018). IPVTH can be provided in program owned or voucher supported units, either on-site at the IPV agency or scattered in the community. Aligned with the voluntary, survivor-centered model of IPV services, IPVTH is linked with a wide range of services that survivors can select from on a case-by-case basis to meet their own individual and family needs (Kline et al., 2019; Wood et al, 2020b). Services offered include advocacy, childcare, counseling for adults and children, educational support, employment assistance, legal services, parenting classes, material need support, substance abuse support, and assistance securing permanent housing (Baker et al, 2010; Clark et al., 2018; Office on Violence Against Women, 2020).

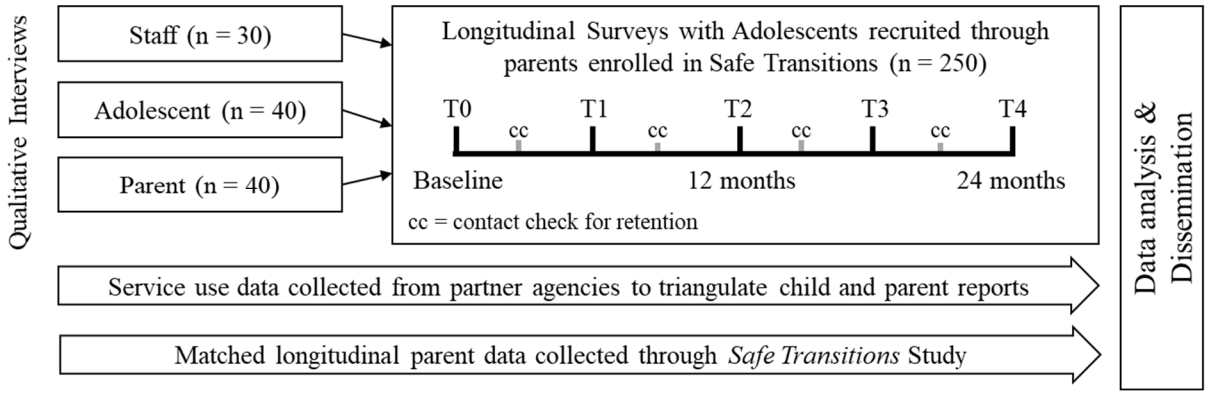
While previous studies have demonstrated the efficacy of safe housing to reduce child abuse & neglect, out-of-home placement in the child welfare system, and reduction of IPV (Fowler et al., 2018; Fowler et al., 2017; Mbiliny, 2015) they have failed to account for the intersection of IPV and teen interpersonal violence. Similarly, there is a lack of data on IPVTH program efficacy for adult residents—a gap to be filled by the current *Safe Transitions* study. Pilot and qualitative studies with limited, single site samples have shown mixed experiences for survivors in IPVTH, with some residents experiencing sleep disruption and emotional distress

(Mountain, 2015) and others demonstrating improved mental health outcomes post IPVTH (Mekolichick et al., 2008). Evidence from pilot or cross-sectional studies, including from our research team, also suggest that residing in IPVTH may lead to reduced violence exposure, improved family and child outcomes, and increased economic stability (Clark et al., 2018; Klein et al., 2019; Mbilinyi, 2015; McGiffert et al., 2019; Rizo et al., 2020; Sullivan et al.,2016; Wendt & Baker, 2013). Therefore, the proposed study will fill a significant gap by focusing on teens.

Preliminary Studies. The proposed study builds on existing work by a productive team of interdisciplinary researchers that indicates IPVTH, with the focus on individualized support services for families exposed to violence, may have the ability to interrupt risk factors and increase protective factors for vulnerable adolescents exposed to violence. Along with the ongoing *Safe Transitions* study, our prior work supports the need for research assessing the experiences and outcomes of adolescents residing in IPVTH programming, particularly in relation to their risk for involvement in abusive relationships. <Redacted Text on Study Team Previous Work>

The study uses an exploratory, mixed-methods, multi-generational, and longitudinal approach triangulated with agency data, and a research-practitioner advisory board to understand the impact of IPVTH on teen residents (Creswell & Plano-Clark, 2018). A mixed methods approach provides a powerful opportunity to investigate processes and levels within human systems, connecting one form of data collection and analysis to the next, overcoming limitations of each individually (Creswell, 2022).

Figure 1: Project Design and Implementation



Using a multiple triangulation approach (see Figure 1), we will collect data from multiple sources (adolescents, parents, program staff, and agency administrative data), using multiple collection methods (qualitative interviewing, longitudinal quantitative survey administration, linking teen and parent quantitative data, and agency administrative data abstracting), creating the first in-depth picture of the impact of IPVTH on teen residents over time. Qualitative data from the first year of the project, along with the guidance of the advisory board, will inform quantitative approaches and research methods with this novel topic and understudied population. Participants will be recruited from the IPVTH programs partnering with the *Safe Transitions* study in 5 states (redacted)with additional states being onboarded. See table one for the research questions that inform this study. All project data collection will occur in English and Spanish. See study timeline in appendix M.

Participants and Procedures: Project Components

Semi-Structured Interviews with Adolescents and Parents of Adolescents Enrolled in *Safe Transitions*. In year 1, we will recruit parents (n=40) enrolled in *Safe Transitions* and an adolescent child (n=40) as dyads for individual interviews. Parent interview questions will move beyond data assessed in *Safe Transitions* and focus on parenting experiences, needs of teen

residents, IPVTH program impacts on parents and children, and service needs. Teen interviews will explore relationship experiences, IPVTH program needs, and community factors.

Table 1: Overview and Objectives

Objective 1. Assess prevalence rates and change over time of TDV victimization and perpetration and among adolescent IPVTH residents recruited from parents enrolled in the current *Safe Transitions* study.

Sample and Data Source: Longitudinal survey of adolescent IPVTH residents

Research Questions		
What is the prevalence of physical, sexual, psychological, and cyber TDV	*Victimization* / *Perpetration*	among adolescents residing in IPVTH?
How does prevalence of TDV *change over time* for adolescent IPVTH residents?		

Objective 1b. Assess prevalence rates and changes over time of peer violence, bullying, and JJS involvement among adolescent IPVTH residents recruited from parents enrolled in the current *Safe Transitions* study

Sample and Data Source: Longitudinal survey of adolescent IPVTH residents

What is the prevalence of	contact with the JJS system among adolescent IPVTH residents?
	bullying and peer violence perpetration and victimization among adolescent IPVTH residents?

Objective 2. Examine, through analysis of adolescent participants in Safe Transitions for Teens and adult parent participants in *Safe Transitions,* intergenerational changes in risk and protective factors for IPV and TDV.

Sample and Data Source: Longitudinal survey of adolescent IPVTH residents; Linked parental data points from *Safe Transitions*; interviews with parents, adolescents, & IPVTH program staff

Research Questions	
What is the relationship of parental	risk factors on adolescent risk factors for TDV, peer violence, bullying, and JJS involvement?
	protective factors, such as safety, social support, and post traumatic growth to adolescent protective factors for TDV, peer violence, bullying and JJS involvement?

Objective 3. Examine IPVTH housing program efficacy to **increase protective factors and decrease risk factors** related to TDV, peer violence, bullying, and JJS involvement?

Sample and Data Source: Longitudinal survey of adolescents; interviews with parents, adolescents, and IPVTH program staff; agency administrative data

Research Questions		
What is the impact of IPVTH	on individual, family, and community	*protective* / *Risk* factors for adolescents over time?
	program model (program based or scattered site) and program components (e.g., counseling, case management) on adolescent outcomes?	

See preliminary interview protocol in Appendix C. Parents and teens will be interviewed separately. We will select parents and teen dyads from every state participating in *Safe Transitions*, with consideration to racial and ethnic diversity. Forty parent and teen dyads are sufficient numbers in qualitative research to reach both thematic and theoretical saturation (Guest et al., 2006), and account for participant, region, and program differences. Potential participants will be invited over email, phone, or text to participate. Parental consent will be obtained for teens. All participants will receive a $40 gift card for participation.

Semi-Structured Interviews with Staff. Staff (n=30; from participating sites) working with teens living in IPVTH will be recruited to participate in semi-structured interviews. These individuals may include housing staff, teen counselors, advocates, mentors, and parenting support providers. Staff will be recruited via email, web, snowball sampling, and print materials. Interview questions will focus on teen needs, experiences, risk and protective factors for violence and parenting needs (see Appendix C for interview protocol).

*Semi-Structured Interviews Data Collection***.** All interviews (with parents, adolescents and staff) will be conducted in person (when possible) or via telephone, or by zoom by a member of the Safe Transitions for Teens research team. Interviews will take 45–60 minutes to complete.

Prospective Longitudinal Study with Adolescents living in IPVTH. Two cohorts totaling 250 teen dependents (aged 12–17) living in IPVTH with a parent enrolled in the *Safe Transitions* study will be recruited. Aligning with the cohort structure of the *Safe Transitions* study, teens living in IPVTH will be recruited at different time points during their stay to maximize understanding of trajectories during and after IPVTH. The first cohort will be comprised of teens that have entered the IPVTH program with their parents within the prior 6 months. This team's current and prior research has found that it is difficult to enroll participants directly preceding or

following their entry date into IPVTH for several factors, including stress associated with moving, schedule shifts due to changing schools and locations, establishing custody exchanges, and orientation to the program. The study will extend eligibility for cohort 1 baseline interviews up to 6 months after entrance into the IPVTH program, which still allows for study enrollment before exit, given the shortest IPVTH stay is generally 6 months. The second cohort will be comprised of teens that have been in IPVTH for 6–12 months and have not yet exited. All data collection activities will occur in English and Spanish.

Administrative Agency Data. We will request each participating agency to provide de-identified aggregated service use data for adolescents to understand patterns of service engagement for teen IPVTH residents. We will request, with participant consent/assent, identifiable program outcome and service use data for teen and parent study participants through a release of information structure to triangulate self-reported service use data at IPVTH.

*Longitudinal Study Promotion, Recruitment and Data Collection***.** We will use methods successfully employed in previous studies conducted by the team to recruit participants. The study will be promoted to adult parent *Safe Transitions* participants with teen children in print and electronic form, and by the Safe Transitions for Teens research team during data collection. If a household has multiple adolescents, we will recruit the teen with the most recent birthday. Additionally, study information will be shared with IPVTH staff working with adolescents to share with their clients. After parental consent and obtaining contact information for adolescents, an invitation will be sent via email/text for participation in an online survey administered via Qualtrics or a similar platform that will include an assent form. The baseline survey will take approximately 45 minutes and follow-up assessments approximately 30 minutes. The survey will

be repeated at 6, 12, 18, and 24 months, with contact checks to aid study retention at 3, 9, 15, and 21 months. See attached human subjects' information (Appendix G) for additional details.

Measures with adolescent participants. At baseline, outcome measures will be asked for 2 time points: Lifetime and last 12 months. At each subsequent follow-up, measures will ask for the previous time period. See measures table in Appendix D for an overview of proposed measures for teens with parental matching measures, to be refined after qualitative data collection and analysis. **All proposed established measures used with adolescent participants have been validated for ages 12 and older.**

Objective 1 measures. Perpetration and victimization of physical, psychological, and sexual TDV will be assessed using the *Conflict in Adolescent Dating Relationships Inventory* (CADRI) (Wolfe et al., 2001). The CADRI is a 25-item measure that differentiates between threatening behavior, abuse, and verbal/emotional abuse, with abuse further divided into relational abuse, physical abuse, and sexual abuse. Items are preceded by specific questions about adolescents' dating histories (e.g., whether they have dated, number of dating partners, length of relationship, etc.). Questions are asked twice—first in relation to perpetration and then in relation to victimization. The CADRI will be augmented with 13 questions on cyber TDV from Zweig et al. (2013). **Objective 1 (b) measures.** The 16-item Olweus Bully/Victim Questionnaire (Olweus, 1996) will assess bullying victimization and perpetration at each time point. Peer violence will be assessed with 1 question from the *Youth Risk Behavior Surveillance* (Kann et al., 2016). JJS involvement will be assessed through 1 question about arrests (Pollock et al. 2015), 1 question about engagement in probation (Substance Abuse and Mental Health Services Administration, 2021), and 1 question about engagement in the JJS system (US Bureau of Labor Statistics, 2020).

Objective 2 measures. Along with primary data collection with adolescents in the proposed Safe Transitions for Teens study, we will make use of data collected though the ongoing *Safe Transitions* study to pair parental and teen risk and protective factor indicators. See measures table Appendix D for a complete list of proposed matched measures between Safe Transitions for Teens (adolescents) and *Safe Transitions* (adult) participants. Parent-teen risk and protective factors will be used to assess the intergenerational association with IPVTH and teen violence using measures administrated to parents (on the *Safe Transitions* Study) and the adolescents (on the Safe Transitions for Teens Study). *Matched **Risk** Factors for Both Parents and Teens.* Physical health will be measured at all time points with the single item "How would you rate your overall health," which is widely used as a global measure of physical health (Ware et al., 2000). Depression will be measured with the *Patient Health Questionnaire* (PHQ-9). The PHQ-9 is an established measure for people ages 12 and up to assess depression symptoms in the previous 2 weeks (Kroenke et al., 2001). Assessment of PTSD symptoms with parents will occur using the 20-question *PTSD Checklist for DSM 5* (Weathers et al., 2013). The *Clinician-Administered PTSD Scale for DSM-5 – Child/Adolescent Version* (CAPS-CA-5, Pynoos et al., 2015) is a 30-question PTSD scale based upon DSM-5 criteria for children and teenagers which is modified to be age appropriate, will be used with teen participants. To measure past-year and past-month teen substance use, we will ask teen participants about their use of alcohol, cigarettes, e-cigarettes, marijuana, cocaine, amphetamines, inhalants, ecstasy, and prescription medications (yes/no for past year; number of days for past month) (Temple et al., 2017). For parents, alcohol and drug use will be assessed using the adapted CAGE questionnaire to assess frequency and severity of alcohol and drug use at each time point (Ewing, 1984). IPV (re)exposure for teen participants will be assessed using select questions from the *National*

Survey of Children's Exposure to Violence Juvenile Victimization Questionnaire (Hamby et al., 2011) which measures direct and indirect witnessing of IPV in the home. IPV (re)victimization for *Safe Transitions* adult participants will be assessed with behaviorally specific questions from the *National Intimate Partner and Sexual Violence Survey* (NISVS), which assesses IPV, stalking and sexual assault (Smith et al., 2018). Housing instability and barriers for parents will be assessed at each time point using the *Housing Instability Index (HII)* (Rollins et al., 2012), and adapted items from the *Family Options Study* (Gubits et al., 2016). Economic stability for parents will be assessed using the *Economic Hardship Index* (Adams et al., 2008), which captures economic vulnerability such as utility disconnection and food insecurity. For teen participants, we will assess housing stability at baseline, past 12-month residence, and residential changes at each follow-up, similar to (Fowler et al., 2015). For economic hardship, we will adapt Mistry et al. (2009) and query teen perception of family and individual ability to pay for needed things and recreation items. *Matched **Protective** Factors for Both Parents and Teens.* Posttraumatic growth, which refers to positive mental health outcomes after adverse events, will be assessed at each time point for adolescents and parents using the *Post Traumatic Growth Inventory* (Taku et al., 1996). Social support for both teen and parent participants will be measured at each time point with the *Multidimensional Scale of Perceived Social Support* (Canty-Mitchell & Zimet, 2000; Zimet et al, 1988). Family safety will be measured through the *Measure of Victim Empowerment Related to Safety* (MOVERS) (Goodman et al., 2014), which measures with 13 statements the extent to which the parent feels able to keep themselves and their family safe from IPV. Service use for both teen and parent participants will be assessed with an approach used on our recent study of teen experiences in IPV programs, an adapted index from Sullivan et al. (2008) asking participants "Did you receive any of the following types

of support…" followed services typically provided within IPVTHs and external service use from other providers (e.g., school, community mental health). Information will be collected about satisfaction with services. Similarly, barriers to service use will be measured with a question asking "Did you need, but not receive any of the following types of support…" followed by the same list of response options. Items will be assessed for both teen and parent participants.

Objective 3: For objective three, examination of IPVTH program efficacy on risk and protective factors, measures for objective two, including IPVTH service use and barriers, will be analyzed along additional measures. Youth-specific risk and protective factors for abusive relationships and other forms of violence. Eight questions adapted from Dahlberg et al. (2005) to assess Attitudes on Violence. The 24-question scale, *Brief COPE* (Carver, 1997), will be used to assess negative and positive coping skills. Likeliness to seek help with the 11-item *Help-Seeking Intention Scale* (Wilson et al., 2005). Youth parent-child bond (Resnick et al., 1997) will be measured with 6 items. School climate will be assessed with the 15 item *School Climate* adapted by Dahlberg et al (2005) which has 3 subscales (student, teacher, awareness).

Co-variates. Child welfare system involvement, foster care, and other out-of-home placements, which will be assessed by both teen and adult self-report modified by our previous studies on transitional housing (Clark et al, 2018; McGiffert et al., 2019). We will assess youth's experiences of racism and discrimination using the Everyday Discrimination scale (Williams et al., 1997). Demographic questions will include measures of age, race, ethnicity, education relationship status, primary language, gender identity, sexual orientation, academic performance and school attendance will be collected.

Data Analysis

Power. Quantitative analyses will be conducted using IBM SPSS and Stata. G*Power Version 3.1.9.4 was used to calculate the sample size needed to adequately power (1-β=.95) a repeated measures ANOVA (Objective 1). A sample size of 84 is needed to detect a small effect (f(V)=.15) across 5 measurement timepoints. This is a conservative estimate based on retaining 70% of sample (n=175) at the end of study and will ensure sufficient power as additional covariates are added into the models and noting ANOVA's inability to handle missing data. Power was calculated for Hierarchical Linear Modeling (HLM) Repeated Measures model (Objective 2 & 3) using Optimal Design Version 3.1. A sample size of 171 is needed to adequately power (1-β=.90) a HLM Repeated Measures model to detect a small to moderate effect (f(V)=.30) across 2 groups (e.g., scattered site or co-located programs, Raudenbush et al., 2011). An HLM Repeated Measures model is recommended as it can better handle missing and incomplete data than traditional methods like a MANOVA (Maas & Snijders, 2003). We estimate our sample size, adjusted for 70% retention at the final study timepoint, will be 175.

Analysis for Objective 1 and 1b. We seek to answer six key questions across the first objective specifically focusing on overall prevalence of victimization and use of violence, contact with the criminal justice system, and changes in victimization and use of violence. Descriptive, bivariate, and multivariate analyses will be conducted with these data. Descriptive and bivariate analyses will assess sample characteristics and correlations between data points (e.g., gender, CADRI scores). We will examine the trajectories of participant victimization, use of violence, and contact with the criminal justice system using a repeated-measures ANOVA. This analysis is best for measuring the same individuals over 3 or more time points. If sphericity is violated, the Greenhouse-Geisser correction will be used (Muller & Barton, 1989)

Analysis for Objective 2. Descriptive and bivariate analyses will be conducted to examine child and parent differences overall and over time. For example, we will assess sample characteristics and correlations between data points (e.g., PTSD by gender; PTSD differences between parent/child). We will conduct multivariate HLM to understand how parental risk and protective factors impact child risk and protective factors over time. Because we will enroll the parents in *Safe Transitions* Study prior to enrolling the teen participant, there will be a temporal lag of a minimum of 3 months to a maximum of 27 months between parent and the teen data collection. This lag and combinations of lags (e.g., parent 6-month, teen 24 month) will permit us to test for causal pathways between the presence or absence of parent risk and protective factors and later teen risk and protective factors. Similar models have been used in prior research specifically looking across family dyads (wife-husband; parent-child). Such models allow for parent data to be used as predictors for child-based outcomes and allow for examination of multiple outcomes (Sayer & Klute, 2005).

Analysis for Objective 3. To examine the impact of housing program, we will first run descriptive and bivariate analyses to assess group differences based on IPVTH model in scattered site versus project-based models. Next, building from prior analyses, we will continue to use a repeated measures HLM to look at direct and moderating effects of the IPVTH program on trajectories of outcome measures (victimization, perpetration, JJS contact). This is essential to understanding how programs influence outcomes. The analyses have been powered to sufficiently address missing data and the number of time points will allow for analyses across time points with less available data (e.g., Baseline, T1, T5).

Qualitative analysis (Objectives 1-3). Qualitative data sources for this project will include staff, adolescent, and parent interview transcripts and memos/notes from data collection. Interview

recordings will be transcribed verbatim by a professional transcription company and identifying information will be redacted. Thematic analysis will be used to analyze interview data (Braun & Clarke, 2006; 2020; Guest et al., 2012). Thematic analysis steps include data familiarization; generation of initial codes; search for themes; review themes; defining and naming themes; and producing the report (Braun & Clarke, 2006). Verbatim transcripts, along with memos and program materials, will be analyzed for themes, or patterned meaning (Braun & Clarke, 2006). Data will be initially reviewed by 3 research team members (Wood, Voth Schrag, & O'Connor). From this review, a codebook of initial themes will be developed from the dataset and then later refined, through open coding to confirm the codebook with the dataset. Data will then be coded line-by-line by 2 members of the team, with the third member available to resolve discrepancies, using secure analysis software with regular meetings to discuss analysis. After line-by-line coding, the team will conduct a second phase of coding to define and refine relationships and subsequent themes. Additional analytic rigor will be introduced through feedback on thematic trends with the advisory team and by assessing thematic saturation (Guest, et al., 2012; Huberman & Miles, 1994). The final coded dataset will be organized by themes, complete with codebook with inclusion, exclusion, and example data.

Data integration. The exploratory sequential longitudinal design of the study provides an opportunity to further build the quantitative measurement model based on findings from the initial qualitative phase and feedback from the advisory board, strengthening in the utility and quality of quantitative findings (Creswell & Plano Clark, 2018). We will also embed qualitative and quantitative data and analyses across multiple study points in order to incorporate the personal experiences and insights of participating teens and parents along with longitudinal quantitative results (Fetters et al., 2013).

Research sites. IPVTH programs in <states> that are already engaged in the adult *Safe Transitions* study will be sites for this project. *Safe Transitions* has sites in 5 states committed to the project, plus the support of 4 state coalitions (redacted) to enroll additional sites and other states are currently being onboarded. In total, sites that have already been engaged have 784 IPVTH units and some sites expanding. See letters of support. Partner sites have been briefed on Safe Transitions for Teens and are enthusiastic about the project. See attached tables for overview state data related to the project.

Design Considerations and Mitigation of Potential Pitfalls

1. Age of Adolescent Participants: While the age range of who is considered a teen can vary between ages 10–24, we are limiting our teen sample to ages 12–17. 18+ year olds have different regulatory, legal, and societal roles and are increasingly considered emerging adults (Arnett et al, 2014). We selected age 12 as this age is generally prior to the onset of risk and violent behaviors (Fonagy, 2003; Worthen, 2012) but old enough to understand; and 17 as an upper bound to mark the shift to legal adulthood at age 18. If we have recruitment challenges, we will consider recruitment of children age 10 to 11.

2. Safety: Research with adolescents requires careful consideration of safety, protection of human subjects, and confidentiality. We will implement the following procedures throughout the Safe Transitions for Teens project. First, to consent into the study, both parental consent and teen assent will be gained. Adolescents will assent to participate through a form which will outline the risk and benefits of study participation in simple, age-approach language. Confidentiality will be emphasized and exceptions to confidentiality clearly stated. Throughout the data collection process, both surveys and interviews, teen participants will be allowed to skip any questions they wish or not complete the survey/interview if they wish. A distress protocol will be implemented

in interviews in order to ensure participants are able to participate and supports are offered if appropriate. Resources (e.g., 24-hour crisis lines) will be provided after the survey and interviews for participants who may be facing other hardships (e.g., food insecurity). See human subject and distress protocol (Appendix G) for more information.

3. Sampling: In their 2021 census, NNEDV estimates 10,297 children nationwide are in transitional and rapid rehousing programs on any given day (NNEDV, 2022) and an estimated one in five children in OVW-funded IPVTH are 12-17. While youth are frequently served in IPVTH, based on our previous studies, teen residents are less common than youth under 12. Based on NNEDV, OVW, and data from *Safe Transitions* sites in the pilot year, we anticipate being able to recruit 250 teens. This number, when reduced by 30% to account for attrition results in our final sample size of 175, for which this study is powered, with a conservative retention estimate of 70% given the study population. To mitigate sampling and recruitment issues, we are expanding the number of sites and states involved in this program to ensure we will be able to obtain our target sample size within our planned timeline.

4. Retention: Attrition from the study is a concern for this study population. To address retention pitfalls, we have a strong incentive schedule and will develop a safe contact plan for all participants at assent and parental consent, including identifying at least three other safe individuals to follow-up with. We will also seek documented permission to reach out to partnering agencies and service providers for help with retention if needed. Research staff will emphasize ongoing eligibility no matter the housing situation or configuration. Finally, ongoing retention check-ins and engagement with participants between time points will increase accuracy of contact information and engagement, with scheduled contacts every three months during the study period. See incentive information (Appendix H) for schedule and retention estimates by

time point. In addition to traditional training and recruitment support for sites, we will develop a series of training videos on the recruitment process to provide refreshers, reducing time burden on staff, and addressing turnover (e.g., new employee can review training videos immediately).

Impact

By building on the first multi-state, longitudinal study of IPVTH outcomes in adult program residents, Safe Transitions for Teens is uniquely positioned to provide a feasible approach to assess outcomes related to adolescents residing in IPVTH programs, including risk for involvement in an abusive relationship. Adolescents exposed to violence and experiencing housing insecurity are at greater risk for TDV perpetration and victimization, as well as JSS involvement, peer conflict, and bullying, making assessment of interventions with this group a high priority with large impacts on public health and safety. The extent to which IPVTH may enhance protective factors and decrease risk factors is critical to understanding how to interrupt intergenerational transmission of violence. Critically, we will use a multi-generational design to assess the impact of a community intervention (housing) on family risk and projective factors for teen violence, providing crucial information to guide program policy and services.

The approach of IPVTH programs, aimed at fostering protective factors for adolescents and families, has yet to be tested, although demand for such services continues to surpass the supply of available units or program slots (Wood et al., 2019). Demand for housing supports and to address teen health needs has increased especially during the COVID-19 pandemic, when homelessness and social isolation has exacerbated risks for vulnerable families (Wood et al., 2021b). This proposal is aligned with the federal focus on housing and interpersonal violence. The recent re-authorization of the Violence Against Women Act (VAWA), the White House Gender Policy Council and the proposed federal budget all prioritize community interventions

with youth and housing as a tool for violence reduction (The White House, 2021; 2022ab). Study findings will provide an empirical base for intervention implementation and future decisions related to family-based IPV housing programs, including funding strategies, implementation guidance, and program development decisions that will guide federal and state efforts. We will partner with our advisory boardto disseminate study results in multiple outlets to diverse stakeholders, ensuring impact; and provide site specific information to our practitioner partners.

The study will also address key limitations in previous studies focused on adolescents exposed to IPV. Previous studies have heavily relied on cross-sectional and single-level-of-analysis designs, lacking attention to confounding factors and trajectories over time (Camacho et al, 2012; Carlson et al., 2019; Weir et al, 2019). This study addresses these limitations using a longitudinal design with paired parent-teen data points. Further, there is a paucity of application and testing of the socioecological model, in particular at the community level in prevention models of child exposure to IPV (Carlson et al., 2019). Harnessing this opportunity provided by the *Safe Transitions* study will allow a look at the impact of IPVTH on both the teen individually and the parent-teen relationship, identifying key interventions points to disrupt risk factors and strengthen protective factors in a population at high risk of future violence victimization or perpetration. This can inform intervention planning in IPVTH programs as well as other community based, family focused victim service and criminal justice focused interventions.

Dissemination

Our dissemination strategy will maximize the availability of project findings to practitioners, policy makers, and scholars. For study sites, individualized summary reports for internal agency use will be provided, with webinars upon request. In conjunction with *Safe Transition* dissemination, webinars will be conducted with partners. Safe Transitions for Teens

will also have a space on the *Safe Transitions* project website. The website houses information for study participants, a secure portal for agencies to submit data, and provides project updates including pre-prints of articles, practitioner, policy, and research briefs, infographics, and embedded links to relevant webinars and media. To disseminate findings to the scientific community and provide opportunities for replication, five key manuscripts are planned covering (1) study design, measurement, and methods; (2) longitudinal TDV victimization and perpetration findings; (3) longitudinal peer violence, bullying, and JSS involvement findings; (4) parent/ teen matched risk and protective factor findings; and (5) impact of IPVTH on youth risk and protective factors. We will target peer-reviewed violence and discipline-specific journals (e.g., *Journal of Interpersonal Violence; American Journal of Preventative Medicine; Psychology of Violence*). Dissemination at conferences is planned targeting research meetings including the *American Society of Criminology, Society for Social Work and Research, American Public Health Association* and practitioner focused conferences such as *Conference on Crimes Against Women, End Violence Against Women International Conference,* and *the National Health Care and Domestic Violence Conference*. We will submit a draft summary report detailing the project, including results and implications 90 days prior to the end date, with a final version provided at the end of the project period. Deidentified data sets, along with instruments and protocols, will be archived at the NACJD in accordance with NIJ practices. See data management plan (Appendix I).

Capabilities and Competencies

The University of Texas Medical Branch (UTMB) Center for Violence Prevention

UTMB, 1 of 15 campuses of the University of Texas System, is an integrated academic medical center under 1 administrative structure, the 100-acre campus includes 5 schools (Medicine, Graduate Biomedical Sciences, Public Health, Nursing, and Allied Health Sciences)

and a network of hospitals and clinics that provide a full range of medical care in Southeast Texas. The Center for Violence Prevention (CVP) at UTMB was founded in an effort to reduce the burden of violence in Texas and across the United States through research, evaluation, training, policymaking, and partnerships with community agencies. With support from the NIH, CDC, NIJ, state, and foundation funders, CVP conducts innovative research to prevent multiple forms of violence and mitigate its impact. CVP is comprised of 5 faculty members, including a senior biostatistician, and 10 full-time staff members and affiliate research partners across the globe.

This team has a long history of effective collaboration, as evidenced by our numerous previous successful studies and existing *Safe Transitions* study and has a comprehensive skillset. See attached skill matrix for more information. <Redacted Information about Study Team and Advisory Board>