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A Baseline Comparison of PATSCH and Parent as Teachers.

by

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B.A., GEORGIA STATE UNIVERSITY

A Capstone Submitted to the Graduate Faculty
of Georgia State University in Partial Fulfillment
of the
Requirements for the Degree

MASTER OF PUBLIC HEALTH

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APPROVAL PAGE

A Baseline Comparison of PATSCH and Parent as Teachers.

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Author's Statement Page

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ABSTRACT

Child maltreatment is a major public health problem resulting in negative outcomes for individuals and society. Evidence-based home visiting programs have been effective in reducing risk of child maltreatment to individuals at risk or substantiated for child maltreatment and improve parenting skills. This study examined baseline data from a project that braided two evidence-based parenting programs: SafeCare® and Parents as Teachers (PATSCH). It compared PATSCH and Parents as Teachers Only at baseline. A total of 159 families, meeting at least two at-risk criteria, participated. There were few statistically significant differences between the PATSCH and PAT Only groups at baseline; there were, however, significant differences in attachment, age, race and ER decisions. Dependent variables included parent measures, child development measures, as well as demographic variables. All participants showed lower risk for child maltreatment than might be expected based on risk criteria. Limitations included the use of voluntary self-report measures and analysis limitations.

Keywords: child maltreatment, neglect, evidence-based programs, parent-child interaction, home visiting, SafeCare, Parents as Teachers

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Foreword

This effort initially began in 2015 as a thesis project, but was converted to a capstone project in summer 2017. This occurred after consultation with my current committee members that include my capstone chair and the former project coordinator of the PATSCH research project in order to complete my degree after challenges presented throughout my project.

After brainstorming different research questions, I began on my literature review and methods section. After completing both sections, I began analyzing baseline data. This came with some challenges such as determining an analytical plan that was best for this project because it was the first time we were analyzing baseline data for PATSCH and during the time I began this project, baseline data were not fully accessible. Literature on measures was used to determine how to analyze data, which also facilitated additional analysis of PATSCH data. I continued to work on results with the intention of defending by Summer 2016. Problems arose after realizing resources necessary for data analyses were missing. Once resolved, I continued to work on data analysis. Due to personal social-ecological challenges, there was a lapse of time during this project resulting in a delay of defending my final paper.

After meeting with my committee chair in summer 2017, we discussed how to proceed in producing a product that would be rapid and informative. At that point, it was decided to move forward with a capstone project describing my journey with this project, including personal obstacles and growth, and lessons learned. This paper includes an introduction to child maltreatment and describes risks factors, consequences, and prevention of child maltreatment. The purpose of this project was to examine baseline

data for PATSCH to determine if there were any significant differences at baseline on demographic characteristics, the Brief Child Abuse Potential Inventory, the Mother-Child Neglect Scale, the Parent-Child Conflict Tactics Scale, the Devereux Early Childhood Assessment, the Protective Factors Survey and the Sick and Injured Child Checklist measures.

Introduction

Child maltreatment is a public health problem that involves acts of commission (physical) and acts of omission (neglect) by a parent or caregiver resulting in potential harm to a child (Department of Health and Human Services [DHHS], 2017; World Health Organization, 2016). The Fourth National Incidence Study of Child Abuse and Neglect (2015) estimates that 3.4 million children experienced maltreatment. In 2015 in the United States, there were 683,000 substantiated reports of child maltreatment (DHHS, 2017). The national estimate of child fatalities attributed to abuse and neglect was 1,670 (DHHS, 2017). It was reported that 83.4% of perpetrators were between 18 and 44 years old and of those, 54.1% were women, 45.0% were men and 0.9% were unknown sex (DHHS, 2017). Child fatalities were comprised of White (42.3%), African- American (30.6%), and Hispanic (14.5%) children (DHHS, 2017).

Child maltreatment has a negative impact on individuals and society (Centers for Disease Control and Prevention, 2017). The Adverse Childhood Experiences (ACE) research is a collaboration between the Centers for Disease Control and Prevention and Kaiser Permanente that focuses on the role of childhood adversity by examining the lasting effect and relationship between adverse childhood experiences and health problems as well as the lifetime prevalence and effect of 10 categories of adverse

childhood experiences (Felitti, Anda, Nordenberg, Williamson, Spitz, Edwards, Koss, & Marks, 1998). ACEs are defined by 10 categories of childhood maltreatment (physical, sexual, and emotional), childhood neglect (physical and emotional), and five types household dysfunction (household substance abuse, mental illness, incarceration, mother treated violently and separation or divorce) (Larkin, Felitti, & Anda, 2014). These studies have demonstrated a strong association between adverse childhood experiences and social and health problems as an adult resulting in a poor quality of life (Larkin, Felitti, & Anda, 2014). Child maltreatment impacts society as well. It is estimated that the total lifetime cost for maltreatment is \$124 billion annually (Fang, Brown, Florence, & Mercy, 2012). The cost averages a total of \$32,648 per victim in the U.S. with a lifetime cost for each victim of \$210,012 (Fang, Brown, Florence, & Mercy, 2012). Given that state and county public health departments play a major role in child maltreatment prevention services, their goal is to protect and improve the health and well-being of individuals and communities to prevent health problems; thus, child maltreatment prevention should be one of the foci of public health departments (Crum, Joyner, Fogerty, Ellis, & Saul, 2013).

In 1996, the primary focus of the World Health Assembly was on behavioral, environmental, and social factors declaring violence, including child maltreatment, a major public health issue (World Health Organization, 2016). Victims of child maltreatment are more likely to become aggressive and violent as adults (DHHS, 2017). Violence occurs at different levels such as the individual, family relationship, and community, and is more likely to be associated with biological and personal factors as well as demographic characteristics. One important factor in public health is the

accessibility of services for those victims who have suffered any type of violence (DHHS, 2017; World Health Organization, 2016).

Risks Factors for Child Maltreatment

Risk of child maltreatment is frequently discussed relating to characteristics of the child victims and adult perpetrators. Individual risk factors for victimization of children include age and special needs including disabilities, chronic health issues, and mental health issues. Risk of maltreatment is highest in the first years of life. In 2015, it was reported that 27.7% of victims were younger than 3 years (Wildeman et al., 2014; DHHS, 2016). The number of children who experience maltreatment between birth and 18-years-old is 1 in 8 (Wildeman et al., 2014).

Perpetrators are commonly identified as the parents or primary caregivers of the child (Centers for Disease Control and Prevention, 2017). The national estimate of perpetrators is 78.1% biological parents, 6.3% relative other than a parent, and 3.7% unmarried partner of the victim's parent (DHHS, 2017). Parent or caregiver risk factors are based on characteristics such as criminal activity, misuse of alcohol and drugs, past history of child maltreatment, teen parent, single parent, unemployment and low educational attainment (World Health Organization, 2016). On a family level, the risk factors include social isolation, history of family violence, and poor parent-child relationships. On a community level, gender and social inequalities, unemployment, and social and cultural norms may increase child maltreatment (World Health Organization, 2016).

Poverty has increased in the past decade. An estimated 22% of all children living in the United States are considered below federal poverty line (Heberle & Carter, 2015).

Low socioeconomic status is correlated with child maltreatment, as poverty impacts parent and child health, child developmental trajectory, increased risky health behaviors and increased exposure to psychosocial stressors (The Fourth National Incidence Study; Eckenrode, Smith, McCarthy, & Dineen, 2014). Children in low socioeconomic status households were three times more likely to be abused than children with a stable socioeconomic status (The Fourth National Incidence Study; Eckenrode, Smith, McCarthy, & Dineen, 2014).

Consequences of CM

Children who have experienced maltreatment are more susceptible to short- and long-term health problems (Herrenkohl, Hong, Klika, Herrenkohl, & Russo, 2012). The experience of maltreatment in early life is associated with higher rates of mortality, obesity, and HIV (Wildeman, Emanuel, Leventhal, Putnam-Hornstein, Waldfogel, & Lee, 2014). Individuals who have suffered child maltreatment are more likely to engage in criminal behaviors and have juvenile records. Long-term effects of child maltreatment include mental, physical, and health-related issues including depression, obesity, smoking, alcohol and drug misuse, pregnancy, and high-risk sexual behaviors. Child maltreatment can also be attributed to higher risk for cancer, heart disease and suicide (WHO, 2015; Herrenkohl, Hong, Klika, Herrenkohl, & Russo, 2012). Additionally, victims of maltreatment experience mental health problems. Victims of maltreatment are five times more likely to commit suicide compared to non-victims (Wildeman et al., 2014). Childhood maltreatment leads to long-lasting effects on mental health and other health-related issues such as risky health behaviors and impairments. As adults, victims

of child maltreatment often display developmental delays, health problems, and physical injuries.

Prevention of Child Maltreatment

Evidence-based prevention programs are designed to improve parental skills that may include education on the developmental stages of childhood skills and training. In 2015, 2.3 million children received prevention services (DHHS, 2017). Evidence-based parenting programs represent one public health approach to improve parenting skills and reducing children's risk of maltreatment. Such evidence-based programs have resulted in positive impact and reduced referrals from child protective services for child maltreatment (Chaffin, Hecht, Bard, Silovsky, & Beasley, 2012; Prinz, Sanders, Shapiro, Whitaker, & Lutzker, 2009).

Prevention strategies include home visiting, family support, education, daycare, employment, and housing focusing on creating safe and stable environments for victims (DHHS, 2017). It is important to implement effective prevention strategies to reduce the prevalence of child abuse. There are numerous child maltreatment prevention and intervention programs available such as Parent-Child Interaction Therapy (PCIT), Triple P, Child-Parent Centers (CPCs), and Child Protective Services among others (CDC, 2017). This research presented here involves two evidence-based parenting programs, Parents as Teachers and SafeCare®.

It is important to have innovative intervention efforts to continue improving outcomes and enhances human health (Glasgow, Vinson, Chambers, Khoury, Kaplan, & Hunter, 2012), and several home visiting intervention programs have successfully reduced child maltreatment risk (Avellar, & Supplee, 2013).

Parents as Teachers. Parent as Teachers (PAT) is an evidence-based parenting program that promotes school readiness and healthy development in children (Pfannenstiel & Seltzer, 1989; Pfannenstiel, Seitz, & Zigler, 2002; Zigler, Pfannenstiel & Seitz, 2008; Drotar, Robinson, Jeavons, & Kirchner, 2009). PAT has four dynamic components: personal visits, child screening, group connections, and resource networks (Parents as Teachers National Center, 2012). The PAT curriculum aims to reduce the risk of child abuse and neglect and educates parents by giving them tools to successfully provide the best quality of life to their children and thus provide children a solid foundation for school success. Home visits are conducted by certified parent educators who provide age-appropriate child development information, engage the family in appropriate activities, and address parental concerns (Pfannenstiel & Seltzer, 1989; Wagner, Spiker & Linn, 2002; Zigler, Pfannenstiel & Seitz, 2008).

PAT addresses three areas: parent-child interactions, family well-being, and development-centered parenting (PAT, 2015). The parent-child interaction component focuses on child development, parent-child activities and parenting behaviors. The family well-being component focuses on family strengths and skills, protective factors, and resources. The development-centered parenting component links parenting and child development to increase parent knowledge (PAT, 2015).

PAT is a voluntary program available to families with children up to age five. This program is also available to any expectant mother. PAT research has shown improvements in parenting behavior and attitudes, parents spending more time with their children, as well as engaging in language and understanding of child development

(Pfannenstiel & Seltzer, 1989; Wagner, Spiker & Linn, 2002; Zigler, Pfannenstiel & Seitz, 2008).

SafeCare. SafeCare is an evidence-based in-home parent support model that increases parenting skills. It is a parent training and support program for families at risk for child maltreatment with children five years old and younger. The typical number of sessions a family completes is 18. SafeCare focuses on improving parent skills in three core areas: home safety, child health, and parent-child/parent-infant interaction. Each module is designed to help parents and children have safe home environments and increase positive interactions between parents and their children (Guastafarro, Lutzker, Graham, Shanley, & Whitaker, 2012; Chaffin, Hecht, Bard, Silovsky, & Beasley, 2012; Lutzker & Chaffin, 2012). The health module provides materials on which parents are trained to determine the best care for their children when they are sick or injured. Parents are taught what to look for and how to proceed whether seeking emergency services, making a medical appointment, or self-treating their children (Guastafarro et al, 2012). The home safety module provides materials to teach parents to identify and make potential hazards in their homes inaccessible. The Parent-Child Interaction (PCI) and Parent-Infant Interaction (PII) modules focus on improving interactions by teaching parents to physically and verbally interact with their children (Guastafarro et al., 2012). The PII and PCI modules include developmental expectation discussions as a part of reducing children's risk.

The SafeCare training format is research-based (Lutzker & Bigelow, 2002). It includes explaining, modeling, practicing, and providing feedback. SafeCare training specialists instruct providers to explain behaviors, demonstrate desired behaviors,

practice skills, and provide positive feedback to parents. SafeCare providers work with parents until each parent successfully meets the skill criteria for each module.

In-home parent support programs are important and necessary in early childhood service systems to improve lifestyles. They are aimed at attending to some of the needs of families with young children through home-based services improving parenting, family functioning, and child outcomes (Duggan, Minkovitz, Chaffin, Korfmacher, Brooks-Gunn, Crowne, Filene, Gonsalves, Landsverk, & Harwood, 2013). Additionally, these programs offer direct services such as education, health and social services (Duggan et al., 2013).

Recent Seminal Research on Braiding Two Evidence-Based Programs

The Parents as Teachers and SafeCare at Home (PATSCH) research, funded by the Annie E. Casey Foundation, was a randomized control trial of a braided curriculum for parents at risk for child maltreatment. The term braided was used to describe the two evidence-based programs that complement one another while still maintaining visibility and integrity of each model throughout the implementation. PATSCH systematically braided PAT and SafeCare to explore if the two braided evidence-based parenting programs could result in lower risk for children in their homes than PAT Only.

This cluster-randomized trial evaluated the effects of PATSCH on improving parenting and child outcomes. The two groups were families who received PAT services only and families who received the PATSCH curriculum. These services were provided by trained PAT parent educators who typically provide home visits. The target population for PATSCH was families enrolled in the PAT program with children birth to five years old. In addition, families had to meet at least two of the five following risk criteria: single

parent, teen parent (between 15 and 18 years old), low income, low educational attainment, and having English as a second language.

Described here is an examination of PATSCH baseline data comparing the two groups to determine if there were any significant differences among demographic characteristics, risk factors, and parenting behaviors between the PATSCH and PAT Only group. Any significant differences at baseline among demographic and/or other risk factors could help inform interpretation of the results of interventions and possibly drive protocol modifications in other research and service. If there were any differences at baseline, they would presumed to have occurred by chance because sites at baseline were randomized to either the PAT Only or PATSCH group. With randomization, the size of groups does not need to be exactly comparable (Elkins, 2015).

METHOD

Participants and Setting

The PATSCH research was approved by the GSU Institutional Review Board and was housed in the Georgia State University School of Public Health Mark Chaffin Center for Healthy Development. PATSCH was a cluster-randomized trial, randomized at the site level to avoid any risk of contamination by providers in any given site exposing PATSCH to PAT Only providers. In a collaborative effort between PAT state leaders and the developer of SafeCare, the trial was implemented in Georgia, South Carolina, and North Carolina. All of the selected sites were matched for location and basic demographic characteristics. Sites represented a convenience sample.

A total of 159 families were enrolled. All participants had to meet at least two at-risk criteria from: low income; low level of educational attainment; English as a second

language; single parent; or teen parent and have at least one child age 0 to 4 years old. Bilingual parent educators and families also participated in the project. Participants were families already enrolled in PAT services and were approached by PAT parent educators to be involved with PATSCH. Once the families were enrolled, each parent receiving PAT services became the target parent and the target child was identified by age in order to record changes in parenting skills and interaction throughout the study. If there were multiple children under 5 years old in a household, the parent was allow to select which child would become the target child. The parent educators and data collectors conducted each assessment at the families' homes.

Ninety-one families comprised the PAT Only group receiving services as usual. A total of 67 families enrolled in the PATSCH group to complete three modules of the braided curriculum. This lower enrollment in PATSCH could be due to extra requirements such as more visits and extra curriculum than those enrolled in PAT Only group. PATSCH consisted of 20 total sites. Out of 12 existing PAT sites in Georgia and North Carolina in the first cohort, six sites were randomly assigned to PATSCH and the remaining six sites continued PAT as usual. All of the selected sites were matched for location and basic demographic characteristics. Trainers from the National SafeCare Training and Research Center (NSTRC) trained selected PAT parent educators in the PATSCH sites on the braided curriculum.

Data Collection

There were three individual assessment points: baseline (enrollment in PATSCH), 6-months postenrollment, and 12-months postenrollment. The Georgia State University research team, comprised of Georgia State University staff and graduate research

assistants, conducted all data collection for Georgia. Locally hired data collectors collected data in South Carolina and North Carolina. The research team trained all data collectors. Data collectors' training included in-person training, webinars and practice sessions. All families completed the same components at all assessment points: Audio Computer Assisted Self-Interview (ACASI) assessment, a 5 to 10-minute parent-child interaction video, and an environmental scan video of two rooms in the home.

The ACASI assessment gathered information on variables such as family violence, family support and functioning, depression and basic demographic information. Data collectors recorded videos of two rooms to assess the number of household hazards in the home. For each assessment, the same two rooms were recorded. Parents were then instructed to interact with the target child for 5 to 10 minutes. Data collectors recorded the interactions by using a NOKIA Flip Video Ultra HD Model U2120W Camcorder provided by the research team.

Families were incrementally compensated for their participation at each assessment. At baseline, each family received \$40. The amount increased to \$50 at the 6-months postenrollment assessment and after the final assessment at 12-months post-enrollment the family received \$60. Thus, total compensation of \$150 was provided per family who completed. All data collected, including the ACASI survey, parent-child interaction videos and environmental videos were uploaded to a central hard drive. Each family was provided a participant ID rather than using names for records.

Measures

Included were enrollment data and individual assessments. There were 12 different measures related to risk of child maltreatment. The current research effort

examined demographics, child maltreatment risk, child development and parenting at baseline.

Demographic Characteristics. Gender, marital status, race, ethnicity, age, education, annual income, and number of children in the home were collected at baseline. Dichotomous variables were gender (female or male) and ethnicity (Latino or not Latino). Race categories included White, Black, and other. Age was computed based on date of birth. Marital status was dichotomized as single or married. Separated and divorced were categorized as single, and living with a partner was categorized as married. Education categories included less than high school, high school diploma or GED, some college, or college graduate.

Brief Child Abuse Potential Inventory (BCAP). The Brief Child Abuse Potential Inventory (BCAP) is a reliable 33-item scale used as a measurement tool to screen for adult risk for maltreatment of a child (Ondersma, Chaffin, Simpson, & LeBreton, 2005). The scale is calculated as a total risk score and contains the following subscales: distress, family conflict, lack of happiness, rigidity, feelings of persecution, loneliness, and financial insecurity (Ondersma, Chaffin, Simpson, & LeBreton, 2005). The risk scale ranges from 0 to 24 having a cut off of 9 and 12 for risk distinction. Participants had the option to respond if the “Agree” or Disagree” with each statement only considering the target child.

Mother-Child Neglect Scale (MCNS). The Mother-Child Neglect Scale (MCNS) is a self-report measure of neglectful behavior and personal experience of neglect as a child (Lounds, Borkowshi, & Whitman, 2004). The scale was modified from the Neglect Scale (NS), an existing self-report assessment designed to measure personal

histories of neglect. Participants indicated their agreement with statements on a 4-point Likert scale ranging from “Strongly Agree”, “Agree”, “Disagree”, and “Strongly Disagree”.

Parent- Child Conflict Tactics Scale (CTS-PC). Conflict Tactics Scale Parent-Child (CTS-PC) is a scale used to measure the extent to which a parent has carried out violence (Straus, Hamby, Finkelhor, Moore, & Runyan, 1998). The scale measures physical assault (corporal punishment and physical abuse), psychological aggression, and nonviolent discipline techniques. Questions also included neglect, sexual abuse and discipline.

The Devereux Early Childhood Assessment (DECA). The Devereux Early Childhood Assessment (DECA) is an assessment designed to support early interventions to reduce significant emotional and behavioral concerns. It identifies children needs, helps childcare providers, evaluates the learning environment, and evaluates outcomes. DECA is a 37-item tool (27 protective factors and 10 behavioral concerns) focused on identifying key social and emotional strengths. There are three different assessments used based on the child’s age: one for infants age 1 month up to 18 months; one for children age 18 months up to 36 months; and one for children age 2 through 5 years. Participants responded with frequency of items from “Never”, “Rarely”, “Occasionally”, “Frequently”, and “Very Frequently”. The raw score was calculated for each assessment. Using the DECA T-score and percentile score table, t-scores were gathered for all assessments by adding all the raw scores for all of the items that comprise each scale. The T-score mean is 50 with a standard deviation of 10, and T-scores range from 30 to 70.

Protective Factors Survey (PFS). The Protective Factors Survey (PFS) is a tool designed to measure the involvement of caregivers receiving child abuse prevention services. (Counts, Buffington, Chang-Rios, Rasmussen, & Preacher, 2010). The subscales measure protective factors in five areas, but for the purpose of this study, four areas were analyzed: family functioning, social emotional support, concrete support, and nurturing and attachment. Participants responded to statements on a 7-point Likert Scale ranging from “Strongly Agree” to “Strongly Disagree”. A higher score reflects a higher level of protective factors out of a 7-point response scale.

Sick and Injured Child Checklist (SICC). The Sick and Injured Child Checklist (SICC) assessment describes health scenarios that require the parent to decide what steps are required and appropriate for that particular health scenario. It allows parents to evaluate and decide if the child can be treated at home, taken to the doctor, or taken to the emergency room. All responses were gathered and recoded to identify what was wrong with the child in the scenario and if the participant knew how to respond. Numeric scores were assigned to all responses and summed. Scenarios include emergency room, doctor appointment, and care at home. Nine health scenarios were used. A decision score and illness score was calculated based for each scenario.

Analytic Plan

Descriptive analysis of baseline characteristics, specifically related to demographics and the outcomes of interest for the larger trial (risk for maltreatment, school readiness, and parenting outcomes) were conducted. Statistical tests depended on the distribution of the variable and type of data element. Chi Square tests were used for categorical variables and t-tests were used for continuous variables. Baseline comparison

was necessary to examine if there were differences in characteristics between the PATSCH and PAT Only groups.

Results

Demographic characteristics of the entire sample (n=152) are presented in Table 1 by treatment group. The actual enrollment sample was 159, but data from only 152 participants' were used in analysis. Percentages by treatment group are shown in Table 1. Age and race were statistically significant ($p < .05$). The mean age of all participants was 28 years and ranged from 17 to 46 years. The mean age in PATSCH was 26.1 years and for the PAT Only group was 29.4 years. The means of race for PATSCH were as

Table 1.
Demographic Characteristics of Participants

	PAT Only n=86	PATSCH n=66	Total N=152	P-Value
	<i>M (SD)</i>	<i>M (SD)</i>	<i>M (SD)</i>	
Age	29.4 (8.5)	26.1 (6.3)	28.0 (7.8)	0.03
Number of children	2.2 (1.3)	2.0 (1.3)	2.1 (1.3)	0.13
	n (%)	n (%)	n (%)	
Gender				
Male	2 (2.4)	1 (1.6)	3 (2)	0.64
Female	82 (96.5)	63 (98.5)	145 (97.3)	
Race				
White	23 (35.9)	29 (46.8)	52 (36.4)	0.03
Black	33 (51.6)	14 (22.6)	47 (32.9)	
Other	25 (30.9)	19 (30.7)	44 (30.8)	
Latino				
No	57 (67.9)	38 (57.6)	95 (63.3)	0.43
Yes	26 (31.0)	27 (41.0)	53 (35.3)	
Marital Status				
Single (not living with a partner)	33 (39.3)	19 (29.7)	52 (35.1)	0.23
Married, Living with a partner	51 (60.7)	45 (70.3)	96 (64.9)	
Education				
Less than 12 th grade	43 (51.2)	26 (40.7)	69 (46.7)	0.10
High school graduate	19 (22.6)	25 (39.1)	44 (29.7)	
Some College or College Graduate	22 (26.2)	13 (20.3)	35 (23.7)	
Income				
\$0 – \$4,999	22 (35.5)	22 (36.1)	44 (35.8)	0.99
\$5,000 – \$14,999	18 (29.0)	19 (31.2)	37 (30.1)	
\$15,000 – \$24,999	15 (24.2)	14 (23.0)	29 (23.6)	
\$25,000 – and up	7 (11.3)	6 (9.8)	13 (10.6)	

followed: Whites ($M=29$); Black ($M = 47$); Other ($M = 44$) showing significance. The means of race for PAT Only were as followed: Whites ($M=23$); Black ($M = 33$); Other ($M = 25$). The majority of participants were female (97.3%) and married or living with a partner (64.9%). There were no significant differences in gender ($p > .64$) or marital status ($p > .23$) were observed between the two groups. Approximately 46.7% of all participants reported having less than a high school education, 29.7% reported high school completion and 23.7% reported being a college graduate or attending at least some college. Additionally, a larger percentage of families reported an annual income of less than \$4,999 per year (35.8%) but was not significant. The mean number of children in the household per family was 2.1 and ranged from 1 to 8 children.

Parenting Measures

Descriptive statistics for the BCAP score for PATSCH and PAT Only group are shown in Table 2. The BCAP risk scale has a maximum score of 24. The mean BCAP total risk score, indicating the potential for child maltreatment, was 6.0 for the entire sample ($SD = 4.5$), showing that both groups showed lower risk than expected based upon the inclusion criteria for this research. There was no statistical significant difference between the two groups ($p > .23$). Means and standard deviation for the subscales are as follows: distress ($M = 0.05$; $SD 1.0$); happiness ($M = 0.1$; $SD = 0.4$); feeling of persecution ($M = 0.8$; $SD 1.0$); loneliness ($M = 0.6$; $SD 1.1$); family conflict ($M = 0.3$; $SD = 0.7$); Lie ($M = 1.8$; $SD = 1.6$). Among the BCAP subscales, none were statistically significant for the PATSCH or PAT Only group (Table 2).

Overall parenting outcomes for the Protective Factors Survey and differences between the two groups are presented in Table 2. A higher score reflects a higher level of protective factors. Within the four subscales measuring parents' protective factors, the mean scores and standard deviations for PATSCH participants were: family functioning ($M = 24.1$; $SD = 7.9$), social support ($M = 16.8$; $SD = 4.9$), concrete support ($M = 13.8$; $SD = 6.0$), nurturing and attachment ($M = 26.6$; $SD = 2.2$) compared to those participants in the PAT Only group: family functioning ($M = 25.5$; $SD = 7.6$), social support ($M = 17.6$; $SD = 4.3$), concrete support ($M = 16$; $SD = 5.4$), nurturing and attachment ($M = 26.2$; $SD = 2.1$). Among the PFS subscales, there were no significant differences between the groups ($p > .05$).

Table 2. Means of Parenting Outcomes of Participants

	PAT Only n = 86		PATSCH n = 66		Total n = 152		P- Value
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	
Brief Child Abuse Potential Inventory							
Total Risk	5.8	4.5	6.2	4.6	6.0	4.5	0.23
Distress Factor	0.5	1.1	0.5	0.9	0.5	1.0	0.60
Happiness	0.2	0.5	0.0	0.2	0.1	0.4	0.14
Feelings of Persecution	0.8	1.1	0.8	1.0	0.8	1.0	0.68
Loneliness	0.5	1.1	0.6	1.2	0.6	1.1	0.10
Family Conflict	0.2	0.6	0.4	0.8	0.3	0.7	0.22
Poverty	0.5	0.6	0.4	0.6	0.5	0.6	0.87
Lie	1.7	1.6	1.9	1.6	1.8	1.6	0.90
Protective Factors Survey							
Family Functioning	25.5	7.6	24.1	7.9	24.9	7.7	0.31
Social Support	17.6	4.3	16.8	4.9	17.3	4.6	0.65
Concrete Support	16	5.4	13.8	6.0	15.1	5.7	0.07
Nurturing and Attachment	26.2	2.1	26.6	2.2	26.4	2.2	0.09
CTS-PC							
Nonviolent	4.4	3.8	4.0	3.7	4.3	3.7	0.68
Physical assault	0.2	0.4	0.2	0.4	0.2	0.4	0.47
Psychological aggression	0.5	0.7	0.4	0.7	0.5	0.7	0.10

Data from the Sick and Injured Child Checklist for PATSCH and PAT Only group are presented in Table 3. Percentages and scenarios results are categorized as emergency room (ER), doctor appointment (DA), and care at home (CH). There was a significant difference between the PATSCH and PAT Only in the ER decision scenarios showing that initially, PATSCH parents made more correct ER decisions than PAT Only parents ($p < .05$).

Table 3. Frequencies of Health Scenarios

	PAT Only n = 86		PATSCH n = 66		Total n = 152		P-Value
	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%	
Sick and Injured Child Checklist							
ER Illness							0.43
None Correct	13	15.1	12	18.2	25	16.5	
One Correct	18	20.9	20	30.3	38	25.0	
Two Correct	37	43.0	21	31.8	58	38.2	
All Correct	18	20.9	13	19.7	31	20.4	
ER Decision							0.03
None Correct	15	17.4	18	27.3	33	21.7	
One Correct	20	23.3	25	37.9	45	29.6	
Two Correct	40	46.5	18	27.3	58	38.2	
All Correct	11	12.8	5	7.6	16	10.5	
DA Illness							0.15
None Correct	12	14.0	13	19.7	25	16.5	
One Correct	25	29.1	9	13.6	34	22.4	
Two Correct	37	43.0	34	51.5	71	46.7	
All Correct	12	13.6	10	15.2	22	14.5	
DA Decision							0.26
None Correct	39	45.4	22	33.3	61	40.1	
One Correct	27	31.4	20	30.3	47	30.9	
Two Correct	16	18.6	21	31.8	37	24.3	
All Correct	4	4.7	3	4.6	7	4.6	
CH Illness							0.07
None Correct	12	14.0	11	16.7	23	15.1	
One Correct	4	4.7	2	3.0	6	4.0	
Two Correct	8	9.3	16	24.3	24	15.8	
All Correct	62	72.1	37	56.1	99	65.1	
CH Decision							0.29
None Correct	35	43.8	35	57.4	70	49.7	
One Correct	18	22.5	8	13.1	26	18.4	
Two Correct	18	22.5	14	23.0	32	22.7	
All Correct	9	11.3	4	6.6	13	9.2	

Child Development

Table 4 shows the means and standard deviations for protective factors (Initiative, Attachment, Self-control, and Total Protective Factors) and Behavioral Concerns for infants, toddlers, and children on the DECA assessment. T-scores range from 30 to 70. Classifications of T-scores are as follows: Below Average (30-40), Average (41-59), and Above Average (60-70). On the infant scale, all protective factors T-scores were above average indicating that the child has strength in all areas. On the toddler scale for the PAT Only group, Attachment and Total Protective score were above average, but Initiative and Self-Control are in the average range, indicating that children were showing behaviors related to resilience. However, for the PATSCH toddler group, Initiative, Self-Control, and Total Protective scores were below average, indicating fewer protective factors. For children in both groups, protective factors and behavioral concerns were in the average range. There were no significant differences in other areas of the scale ($p > .05$).

Table 4.
Means of Parenting Outcomes of Participants

Early Childhood Assessment	PAT Only (0) n = 86		PATSCH (1) n = 66		P-Value
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	
Infant					
Initiative	54.1	9.5	52.6	9.6	0.49
Attachment (A/R)	48.3	1.7	45.3	8.5	0.20
Toddler					
Initiative	46.0	6.5	44.0	3.9	0.37
Attachment	42.8	6.5	42.6	9.4	0.31
Self- Control	46.3	9.9	40.8	9.1	0.95
Total Protective Score	46.4	10.5	43.9	10.0	0.84
Children					0.41

Initiative	45.7	12.5	41.2	10.1	0.31
Attachment	41.6	10.4	43.8	14.4	
Behavioral Concerns	59.8	11.0	55.3	11.2	0.91
Total Protective Score	45.4	10.5	43.9	10.0	0.83

Discussion

The current research compared baseline data to see if there were any differences between the groups. This was conducted through the analysis of demographic variables, Brief Child Abuse Potential Inventory, Mother-Child Neglect Scale, Parent-Child Conflict Tactics Scale, Devereux Early Childhood Assessment, Protective Factors Survey and Sick and Injured Child Checklist measures. Two evidence-based parenting programs, PAT and SafeCare, were systematically braided and delivered to participants.

The analysis did not indicate differences with most measures at baseline between parents in the PATSCH and PAT Only groups except in demographic characteristic of race and age, and ER decisions. Participants showed lower risk for child maltreatment than was expected. Demographic characteristics were assessed: age, number of children in the home, household income, education, marital status and race. The PATSCH group was significantly younger than the PAT Only group ($p < .05$). The mean age of the PATSCH group mean was 26.1 years while the PAT Only group mean age was 29.4 years. Data revealed differences in race showing difference between PATSCH and Pat Only groups in White, Black and Other categories ($p < .05$).

The study was limited by use of voluntary self-report measures that can be subject to over-and underreporting by participants. All participants were enrolled after receiving a minimum of five visits. There was also analysis limitation when analyzing DECA

assessment outcomes. The current research only uses baseline data; therefore, further research should be analyzed to determine the effectiveness of PATSCH and outcomes of the entire sample.

Major challenges arose during this capstone project. As previously mentioned, this effort began as a thesis proposal in 2015. After much discussion from my committee, we agreed it was best to move forward with a capstone project instead of a thesis. While my original paper is included in this project, an annotated description of my personal story is also included. The completion of this capstone project became a personal goal in order to obtain my degree and continue my career path.

With the completion of my capstone, I have become a better researcher by trying to improve my writing skills and learning data analysis tools that allowed me to understand this project. It gave me the opportunity to explore PATSCH as a researcher and as a student data collector by conducting home visits and interacting with families. It has allowed me to apply many concepts and skills that I have learned in my studies during my MPH from various professors and PATSCH staff, which I have applied in my analysis and capstone. I have gained useful knowledge with regards to analyzing data and continuing to use resources such as SAS. This project has also given me more insight on child maltreatment and on PATSCH and the challenges presented by in-home applied research. I have gained invaluable research experience to apply in future endeavors as I continue to work advance my career.

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