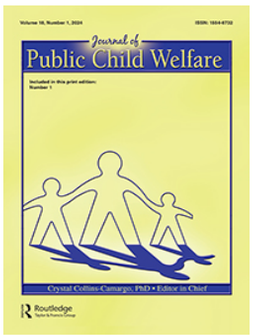

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Understanding the health and well-being of adults 10-15 years after adoption from the US foster care system

Rose Domanico [a], Heather Ringeisen [a], Marianne Kluckman [a], Kevin White [b], and Nancy Rolock [c]

[a]RTI International, Research Triangle Park, NC, USA; [b]Social Work, Case Western Reserve University, Cleveland, OH, USA; [c]Social Work, East Carolina University, Greenville, NC, USA

ABSTRACT

Young adult adoptees surveyed 10-15 years after exiting the child welfare system to adoption reported that they were in good or excellent physical health; did not have a substance use problem; were socially connected; had strong feelings of belonging with their adoptive family; and felt very hopeful about their future. However, adult adoptees reported much higher rates of a current mental health problem than adults in the general population. Understanding the mental health and well-being of adult adoptees can help the child welfare field, social service providers, and practitioners promote early screening for mental health concerns and identify service needs.

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Introduction

Young children who experience abuse and neglect may be at higher risk for adversity throughout their lives (Child Welfare Information Gateway, n.d.). Children who are removed from their homes because of maltreatment or neglect and are unable to reunite with their biological parents spend varied time in foster care and exit the system through adoption, guardianship, or aging out of foster care.[1] For children who exit foster care through adoption,[2] research has found that adoption often provides a safe and stable living condition that can promote children's well-being. Timely permanence through adoption can be a protective factor for children when reuniting with their biological family is not possible, but research is limited on how adoptees[3] fare as adults and little is known about their well-being (Casey Foundation, 2023). This study uses unique data from an Administration for Children and Families (ACF) project called the Understanding Post Adoption and Guardianship Instability for Children and Youth who Exit Foster Care (PAGI). One component of this project included a data collection effort to interview a sample of adoptees who were prior participants in the National Survey of Child and Adolescent Well-Being (NSCAW). NSCAW is a nationally representative, longitudinal study of children involved in the US

CONTACT Rose Domanico rdomanico@rti.org

child welfare system (CWS). NSCAW examines the well-being of children over time, including the well-being of children who exit foster care to adoption. For the PAGI project, a new study called the NSCAW Adoption Study involved new interviews with a sample of adoptees who were former NSCAW study participants.

The NSCAW Adoption Study produced a dataset to help understand the long-term experiences of individuals who have exited the US foster care system to adoption. The current study uses that dataset to examine the current health and well-being of young adults who were adopted out of the foster care as children. Understanding the health and well-being of adult adoptees can help the child welfare field, social service providers, and practitioners promote early screening for mental health concerns and identify trauma-informed services. For simplicity, this study refers to health and well-being as "well-being." In this way, well-being is a broad term that includes physical, mental, and relational health.

Background

Once a child exits foster care to adoption, contact with the CWS greatly diminishes, and information on a child's well-being is mostly unknown. Furthermore, information on how those children fare as adults is extremely limited. Previous studies about the well-being of children adopted out of the US foster care system have short follow-up periods (i.e., less than 5 years) and typically rely on administrative data or the report of adoptive parents as opposed to the adoptees themselves (e.g., Lloyd & Barth, 2011; White et al., 2018). This study addresses the limited research in this area by examining adult adoptee health and well-being a decade or more after their adoption. The study also capitalizes on self-reported measures, helping to give voice to adoptees' own perspectives about post-adoption experiences and well-being. The following review of the literature summarizes research related to children who have exited foster care to adoption; describes how well-being is defined and measured; and discusses well-being in the context of child welfare, specifically for adoptees.

Exiting foster care to adoption

Children who exit foster care through adoption may have lifelong challenges as adoptees. Before being adopted, children in foster care experienced neglect, maltreatment, or other trauma, and their experiences in the CWS may add to their trauma. Certain characteristics from childhood, including age of removal from the home, maltreatment severity at time of removal from the home, and the number of out-of-home placements in foster care can all be predictors of negative

outcomes within the CWS (Faulkner & Madden, 2012; Jones & LaLiberte, 2010; Rolock, Pérez, White, & Fong, 2017; White, 2015). According to the Children's Bureau, there are seven core issues related to adoption that adoptees may experience: loss, rejection, shame and guilt, grief, identity, intimacy, and mastery and control (Factsheets for Families, 2019). Children adopted out of foster care may experience different long-term difficulties compared with their peers, such as externalizing behaviors directed toward caregivers, low family functioning and attachment, and school challenges (White et al., 2018). Furthermore, studies have found that as many as 15%–20% of youth adopted out of foster care experience placement instability up to 10 years after adoption (Rolock & White, 2016; White et al., 2018). Some identified risks for post-adoption difficulties include children adopted at older ages, children who exhibit problematic behaviors, youth who are currently in adolescence, and unrealistic expectations and inadequate training for adoptive parents (Rolock et al., 2021, Sattler & Font, 2021; White et al., 2018). Thus, awareness and understanding of what adoptees experience is important because it relates to their overall health and well-being and the trajectory of their lives.

Defining and measuring well-being

There are many definitions of well-being. Generally, well-being is the state of being happy, healthy, or prosperous. According to the Centers for Disease Control and Prevention (CDC), "well-being is a positive outcome that is meaningful for people and for many sectors of society" (Liburd, 2015). More specifically, the CDC and the World Health Organization (WHO) note that well-being measures include physical health, mental health, substance use, independence, relationships with others, living environment, education, and optimism for the future (CDC, n.d.; WHO, n.d.).

Longitudinal studies have shown that well-being is associated with mental and physical health, longevity, healthy behaviors, social connectedness, and productivity (CDC, n.d.; Diener & Seligman, 2004; Lyubomirsky, King, & Diener, 2005). Well-being goes beyond the individual and impacts people's relationships, communities, and their work. Understanding well-being is important for public policy because it allows for a more holistic approach to health care and health promotion (Diener, Lucas, Schimmack, & Helliwell, 2013). Measuring well-being is often subjective, because it typically relies on self-reported measures (Diener, Lucas, Schimmack, & Helliwell, 2013; Voukelatou et al., 2020) and includes reflections on personal health and metrics such as feelings of belonging and happiness.

Well-being within the context of adoption

The Adoption and Safe Families Act in 1997 sought to improve the safety of children, to promote adoption and other permanent homes for children who need them, and to support families (Adoption and Safe Families Act of 1997, H.R. 867, 105th Cong, 1997). This Act has helped to elevate the importance of child well-being as an outcome of emphasis within the US CWS (Wulczyn, Parlini, & Huhr, 2018). Much of the CWS focus surrounds the child's current, stable living situation (i.e., stability in foster care, the achievement of legal permanence), but there is also a broader acknowledgment that well-being is a holistic, long-term state of being and functioning. Additionally, we know that events that occur prenatally and during childhood can have lifelong implications; therefore, the focus on well-being should go beyond childhood and into adulthood (Almond & Currie, 2010; Almond, Currie, & Duque, 2017). However, research on the well-being of adopted children as they grow into teenagers and then adults is limited.

A 2003 study funded by the National Center for Health Statistics within the CDC compared the health and well-being of adopted children to non-adopted children and found that adopted children may have poorer health than non-adopted children (Bramlett, Radel, & Blumberg, 2007). The study found that adopted children were more likely to have special health care needs, current moderate or severe health problems, learning disabilities, developmental delays or physical impairment, and other mental health difficulties compared with non-adopted children. A national study conducted on adoption disruption within the United Kingdom found that even when adoptions were going well, many of those children had lasting difficulties, including high levels of social, emotional, and behavioral difficulties (Selwyn, Wijedasa, & Meakings, 2014).

Research on adoptee well-being is limited, especially for adult adoptees in the United States. However, a 2016 German meta-analysis of 85 studies looked at psychiatric disorders and treatment in adoptees and non-adoptees, finding that adoptees were twice as likely to experience psychiatric disorders, have contact with mental health services, or receive treatment in a psychiatric hospital (Behle & Pinquart, 2016; Fergusson, 2022).

The NSCAW adoption study

The present study uses a dataset generated by the NSCAW Adoption Study. The NSCAW Adoption Study examined the extent to which children who exit foster care to adoption experience post-adoption instability, either formal (foster care reentry) or informal (e.g., child runs away or experiences homelessness) instability, and the risk and protective factors associated with instability. NSCAW Adoption Study interviews of adoptees and their parents,

took place approximately 10–15 years after the adoption, when the adoptees were, on average, 24 years old. The study occurred over a six-month period, from April to October 2021.

Adoptees and adoptive parents completed online or telephone surveys to describe their experiences with post-adoption instability, the context surrounding post-adoption instability events, their current health and parent – child relationships, and information about needed services and supports. The NSCAW Adoption Study was linked to prior responses available through the first and second NSCAW cohorts to create a longitudinal data set that included caregiver and caseworker responses to questions about the adoptee, prior to adoption.

The present study uses a subsample from the NSCAW Adoption Study, young adult adoptee responses only, to examine their health and well-being in adulthood. To learn about the key findings, conclusions, and implications for the child welfare field from the larger NSCAW Adoption Study, readers are encouraged to read the full NSCAW Adoption Study findings report (Ringeisen, Domanico, Stambaugh, Rolock, & White, 2023).

The present study

This study examines the health and well-being of adult adoptees. The following research questions were addressed:

(1) What characterizes adult adoptees' pre-adoption experiences with the CWS (e.g., maltreatment level of harm, out-of-home placement history, age at the time of adoption, relationship to adoptive parent)?
(2) How do adult adoptees describe their current health and well-being (e.g., physical health, mental health, substance use, feelings of belonging and connectedness, social support, hope for the future)?
(3) Are childhood experiences with the CWS and socio-demographic characteristics associated with adoptees' current mental health problems?

Methods

Sample

The NSCAW Adoption Study dataset was created based on NSCAW I and II respondents who were adopted (Ringeisen, Domanico, Stambaugh, Rolock, & White, 2023). Of adoptees who participated in NSCAW I or II, 803 were eligible to complete new NSCAW Adoption Study interviews. In total, 295 adoptive parents (41.79% response rate) and 206 adoptees (25.65% response rate) completed or partially completed surveys for the NSCAW Adoption Study.

Using available secondary data from NSCAW I and II about participants, analyses were conducted to compare the characteristics of eligible NSCAW I and II adoptees who did and did not complete the NSCAW Adoption Study interviews. These cases were very similar; no statistically significant differences between these two groups across core socio-demographic features, including adoptee sex assigned at birth, race/ethnicity, and age at the time of their adoption, were observed. There were also no statistically significant group differences across their pre-adoption experiences such as the number of out-of-home placements before adoption, behavioral health problems before adoption, or their prior relationship with their adoptive parent (kin vs. non-kin). Across all analyses comparing adoptees who did and did not complete interviews, only two statistically significant differences were found. Adoptees who completed interviews had adoptive parents who were younger at the time of their child's adoption than those who did not complete interviews and adoptees who completed interviews were more likely to have experienced maltreatment perceived as moderately or severely harmful by caseworkers than adoptees who did not complete an interview. Because very few statistically significant differences were found, the NSCAW Adoption Study is generalizable to participants from NSCAW who exited foster care to adoption.

To study adoptee adult well-being, the present study used a subsample of 192 of the 206 adoptee participants in the NSCAW Adoption Study. These 192 included adoptee participants who were 18 years or older at the time of data collection and had a non-missing value for variables related to mental health, physical health, and substance use (93% of NSCAW adoption respondents). These adult adoptees reported on their socio-demographic characteristics and their mental health, physical health, substance use, social supports, and current family relationships. Secondary data from NSCAW I and II about these adoptees also described the adoptees' experiences prior to adoption, including characteristics of their adoptive parents and pre-adoption involvement with the CWS.

Sample characteristics

The sample included 79 adoptees who identified as male (41.1%) and 105 who identified as female (54.7%); to protect their identity, the number of adoptees who identified as transgender or other are masked because of small cell size. Most respondents were non-Hispanic (85.3%). Nearly half of the respondents were White (49.7%); 30.9% were Black; 12% reported multiple races; and 7.3% reported "other." Respondents ranged in age from 18 to 36 years old, with the mean age being 23.8 years old (SD = 4.1 years). Of adoptees, 47% reported that they were not currently in school, and their highest level of education was 12th grade or a GED followed by 28.1% of adoptees reporting that they were currently in school and 15.6% receiving an undergraduate or graduate degree (see Table 1).

Table 1. Socio-demographic characteristics of adult adoptees.

Variable	N	% (SE)
Gender Identity		
Male	79	41.1 (3.6)
Female	105	54.7 (3.6)
Transgender	§	§
Other	§	§
Ethnicity		
Spanish, Hispanic or Latino	28	14.7 (2.6)
Non-Hispanic	162	85.3 (2.6)
Race		
White	95	49.7 (3.6)
Black or African American	59	30.9 (3.4)
Other	14	7.3 (1.9)
Multiple Races	23	12.0 (2.4)
Educational Status		
Currently in School	54	28.1 (3.3)
Not in School, Less than 12th grade	14	7.3 (1.9)
Not in School, GED or 12th grade	90	46.9 (3.6)
Not in School, College, or Grad School	30	15.6 (2.6)
Other	4	2.1 (1.0)

Note: §Values are masked to protect respondent identity.

Measures

This study uses secondary data from NSCAW waves I and II and self-reported data from NSCAW Adoption Study surveys. Information about each adoptee's maltreatment history is available from NSCAW. Variables of interest from NSCAW secondary data include age at adoption, level of maltreatment, childhood behavior problems, and number of out of home placements prior to adoption. Level of maltreatment reflects the caseworker's assessment of the level of harm associated with the child's maltreatment report. This variable comes from the risk assessment module completed by caseworkers within the NSCAW baseline survey. Child behavior problems were measured in NSCAW by adoptive parent report via the Child Behavior Checklist (CBCL; Achenbach, 1991). Children with Total Problem Scores (TPS) in the clinically significant range, 1.5 standard deviations above the norm (CBCL TPS $\geq$ 64), were defined as having a behavior problem. Data on adoptee childhood experiences prior to adoption were taken from the first available completed NSCAW survey completed after the child's date of adoption. This could reflect characteristics only a few months after the child's adoption or more than a year after the child's adoption. This varies by child and depends on the timing of the completed NSCAW survey wave in relation to the child's date of adoption.

Variables of interest from the NSCAW Adoption Study surveys include each adoptee's self-report of their relationship to their adoptive parent; whether they had a mental health problem during childhood; current physical health status; whether the adoptee currently has a substance use problem; whether the adoptee currently has a mental health problem; current living situation; social support; feelings surrounding adoptive family; and hope for

the future. For additional details regarding the data and measures, readers are encouraged to explore the NSCAW Adoption Study data codebook listed on the National Data Archive on Child Abuse and Neglect (NDACAN) (National Data Archive on Child Abuse and Neglect NDACAN, n.d.).

Analysis

Analyses included descriptive frequencies of socio-demographic variables and variables related to the child's adoption, involvement with the CWS, and current adult well-being. Crosstabs were produced showing as associations of socio-demographic characteristics, pre-adoption experiences and type of involvement with the CWS, and adoptee well-being measures and whether the adoptee described having a current mental health problem. Of the 192 adoptees, 112 (58%) were currently dealing with a mental health issue. Because of small cell sizes, any category with less than 15 adoptees was dropped from the bivariate analysis. This included adoptees identifying as transgender, other gender, or other race or those currently living with their biological family. Chi-square statistics and p-values were produced for these crosstabs. Regression models were considered, but the sample size was too small to ensure stable estimates. All analyses were conducted using SAS 9.4 software.

Findings

Adoptees' childhood experiences prior to adoption

Information about adoptees' childhood experiences prior to adoption came from secondary NSCAW data and each adoptee's self-report on the NSCAW Adoption Study surveys. On average, adoptees were 4.9 years old at the time of their adoption (SD = 4.3; range 0–17 years). NSCAW secondary data indicated that adoptees experienced on average two out-of-home placements prior to their adoption (SD = 1.6). The number of out-of-home placements experienced by adoptees prior to their adoption ranged from 0–8. Notably, caseworker reports indicated that 70.2% of adoptees experienced a moderate or severe level of maltreatment harm prior to their adoption. Most adoptive parents did not have a kinship relationship with the adoptee (61.5%), with 21.3% of adoptive parents being grandparents and 17.7% other kin. The NSCAW study asked adoptive parents to complete the CBCL (Achenbach, 1991) about their child's emotional and behavioral health. In the first NSCAW data available after the child's adoption, 25.3% of adoptive parents reported a clinically significant level of child behavior problems. When asked within the NSCAW Adoption Study survey, nearly 70% of adoptees reported having a mental health problem over the course of their childhood, which included emotional, behavioral, learning, or attention problems (see Table 2).

Table 2. Adoptee childhood experiences prior to adoption.

Variable	N	% (SE)
Level of Maltreatment Harm to Child[a,b]		
No or Mild Harm	51	29.8 (3.5)
Moderate or Severe Harm	120	70.2 (3.5)
Adoptee Relationship to Adoptive Parent[a]		
Grandparent	37	21.3 (3.1)
Other Kin	30	17.2 (2.9)
Non-Kin	107	61.5 (3.7)
Child Behavior Checklist (CBCL) Total Problems Score in Early Adoption[a,c]		
In clinical range (≥64)	44	25.3 (3.3)
Not in clinical range	130	74.7 (3.3)
Self-Reported Mental Health Problem in Childhood[d]		
Yes	132	69.1 (3.4)
No	59	30.9 (3.4)

[a]These variables are a part of secondary NSCAW data about the adoptees who participated in the *NSCAW Adoption Study*.

[b]Information about each adoptee's maltreatment history is available from NSCAW. This variable reflects the caseworker's assessment of the level of harm associated with the child's index maltreatment report. The variables come from the risk assessment module within NSCAW. This information is reported by caseworkers at the NSCAW baseline survey. The NSCAW baseline survey is completed after the close of the sampled child's maltreatment investigation.

[c]Child behavior problems were measured in NSCAW by adoptive parent report on the CBCL (Achenbach, 1991). Children with TPS in the clinically significant range, 1.5 standard deviations above the norm (CBCL TPS ≥64), were defined as a child having a behavior problem. This score reflects the first time an adoptive parent responded to a NSCAW survey after their child's adoption.

[d]This variable comes from an item asked within the NSCAW Adoption Study to adoptees. Adoptees were asked to report whether they considered themselves to have struggled with a mental health problem over the course of their childhood.

Adoptee current health and well-being

Most adoptees reported having good to excellent physical health (82.8%) and no problem with substance use (90.6%). However, 58.3% of adoptees reported having a current mental health problem. Most adult adoptees describe living independently (48.4%) or living with their adoptive families (34.9%). Most adoptees never or rarely think of ending their relationship with their adoptive parent(s) (71.1%), and the overwhelming majority have at least one person they can go to if they need to talk about something personal (91.1%). Adoptees report strong feelings of belonging with their adoptive family, with 65.4% saying that they completely or very much belong. Finally, most adoptees feel positively about their future, with 75.5% saying they feel extremely or very hopeful about the future (see Table 3).

Given the high proportion of adoptees who reported currently having a mental health problem, additional analyses were conducted to determine what other variables were associated with adoptees current mental health problem.

Table 3. Adult adoptee self-reported well-being outcomes.

Variable	N	% (SE)
Current Physical Health		
Good to Excellent	159	82.8 (2.7)
Fair to Poor	33	17.2 (2.7)
Current Substance Use Problem		
Yes	18	9.4 (2.1)
No	174	90.6 (2.1)
Current Mental Health Problem		
Yes	112	58.3 (3.6)
No	80	41.7 (3.6)
Current Living Situation		
Biological Family	14	7.5 (1.9)
Adoptive Family	65	34.9 (3.5)
Independently	90	48.4 (3.7)
Other	17	9.1 (2.1)
Thoughts on Ending Relationship with Adoptive Parent		
Never or Rarely	123	71.1 (3.5)
Sometimes	30	17.3 (2.9)
Usually or Always	20	11.6 (2.4)
Number of People Adoptee Can Talk to About Something Personal		
No One	17	8.9 (2.1)
At Least One Person	175	91.1 (2.1)
Current Level of Belonging with Adoptive Family		
Complete or Very Much	117	65.4 (3.6)
A Moderate Amount	23	12.8 (2.5)
A little or not at all	39	21.8 (3.1)
Feelings of Hope for the Future		
Extremely or Very Hopeful	145	75.5 (3.1)
Moderately Hopeful	32	16.7 (2.7)
Slightly or Not At All Hopeful	15	7.8 (1.9)

Relationships between socio-demographic characteristics, pre-adoption experiences, childhood CWS involvement, and current mental health problems

With nearly 60% of adult adoptees reporting a current mental health problem (Table 3), this study sought to better understand what variables were associated with a mental health problem. Table 4 illustrates adoptees' current mental health in relation to demographics, CWS involvement, pre-adoption characteristics, and other health and well-being outcomes.

A higher percentage of adoptees with a current mental health problem compared with those without a current mental health problem were female (63.8% vs. 48.1%), White (61.3% vs. 42.3%), in fair or poor physical health (25.9% vs. 5.0%), reported currently having a substance use problem (12.5% vs. 5.0%), had a mental health problem in childhood (96.4% vs. 31.3%), were moderately or slightly or not at all hopeful for the future (22.3% vs. 8.8% and 12.5% vs. 1.2%), and currently lived with their adoptive family or responded "other" (43.9% vs. 29.7% and 12.2% vs. 6.8%). No pre-adoption experiences or childhood experiences with the CWS were significantly associated with the young adult's current report of having a mental health problem.

Table 4. Adoptee current mental health problems by demographics, pre-adoption characteristics, childhood CWS involvement and other adult health and well-being characteristics.

	Current Mental Health Problem (n = 112)		No Current Mental Health Problem (n = 80)			
Health and Well-Being Characteristics	N	% (SE)	n	% (SE)	X^2	P-Value
Demographics						
Sex						
Male	38	36.2 (4.7)	41	51.9 (5.6)	4.54	0.03
Female	67	63.8 (4.7)	38	48.1 (5.6)		
Race						
White	65	61.3 (4.7)	30	42.3 (5.9)	6.78	0.03
Black or African American	31	29.2 (4.4)	28	39.4 (5.8)		
Multiple	10	9.4 (2.8)	13	18.3 (4.6)		
Adoptee Ethnicity						
Spanish, Hispanic or Latino	14	12.6 (3.2)	14	17.7 (4.3)	0.96	0.33
Non-Hispanic	97	87.4 (3.2)	65	82.3 (4.3)		
Adoptee Current Age	112	23.8 (4.0)	80	23.7 (4.3)	0.23	0.82
Pre-Adoption Characteristics and Experiences with the CWS						
Child Age at Adoption						
Less than 5 years old	57	54.8 (4.9)	43	61.4 (5.8)	0.75	0.39
Five Years and Older	47	45.2 (4.9)	27	38.6 (5.8)		
Level of Maltreatment Harm to Child						
No or Mild Harm	34	34.3 (4.8)	17	23.6 (5.0)	2.29	0.13
Moderate or Severe Harm	65	65.7 (4.8)	55	76.4 (5.0)		
Number of Out-of-Home Placements Prior to Adoption	108	1.9 (1.6)	79	2.1 (1.5)	−0.96	0.34
Adoptee Relationship to Adoptive Parent						
Grandparent	21	20.2 (3.9)	16	22.9 (5.0)	1.01	0.60
Other Kin	16	15.4 (3.5)	14	20.0 (4.8)		
Non-Kin	67	64.4 (4.7)	40	57.1 (5.9)		
Child Behavior Checklist (CBCL) Total Problems Score in Early Adoption						
In Clinical Range (≥64)	29	27.9 (4.4)	15	21.4 (4.9)	0.92	0.34
Not in Clinical Range	75	72.1 (4.4)	55	78.6 (4.9)		
Childhood Mental Health Problems						
Adoptee Report of Mental Health Problem as a Child						
Yes	107	96.4 (1.8)	25	31.3 (5.2)	92.43	0.00
No	4	3.6 (1.8)	55	68.7 (5.2)		
Current Health and Well-Being Characteristics						
Current Living Situation						
Adoptive Family	43	43.9 (5.0)	22	29.7 (5.3)	6.62	0.04
Independently	43	43.9 (5.0)	47	63.5 (5.6)		
Other	12	12.2 (3.3)	5	6.8 (2.9)		
Current Physical Health						
Good to Excellent	83	74.1 (4.2)	76	95.0 (2.4)	14.31	0.00
Fair to Poor	29	25.9 (4.2)	4	5.0 (2.4)		
Substance Use Problem						
Yes	14	12.5 (3.1)	4	5.0 (2.4)	3.09	0.08
No	98	87.5 (3.1)	76	95.0 (2.4)		
Feelings of Hope for the Future						
Extremely or Very Hopeful	73	65.2 (4.5)	72	90.0 (3.4)	16.52	0.00
Moderately Hopeful	25	22.3 (3.9)	7	8.8 (3.2)		
Slightly or Not At All Hopeful	14	12.5 (3.1)	1	1.2 (1.2)		

(*Continued*)

Table 4. (Continued).

Health and Well-Being Characteristics	Current Mental Health Problem (n = 112) N	% (SE)	No Current Mental Health Problem (n = 80) n	% (SE)	X^2	P-Value
Number of People Adoptee Can Talk to About Something Personal						
No One	12	10.7 (2.9)	5	6.3 (2.7)	1.15	0.28
At Least One Person	100	89.3 (2.9)	75	93.8 (2.7)		
Current Level of Belonging with Adoptive Family						
Complete or Very Much	63	60.0 (4.8)	54	73.0 (5.2)	3.94	0.14
A Moderate Amount	14	13.3 (3.3)	9	12.2 (3.8)		
A little or not at all	28	26.7 (4.3)	11	14.9 (4.1)		
Thoughts on Ending Relationship with Adoptive Parent						
Never or Rarely	73	70.9 (4.5)	50	71.4 (5.4)	0.35	0.84
Sometimes	19	18.4 (3.8)	11	15.7 (4.4)		
Usually or Always	11	10.7 (3.1)	9	12.9 (4.0)		

Discussion

Most adult adoptees reported that they are in good or excellent physical health, did not have a substance use problem, are socially connected (i.e., maintained a relationship with their adoptive parent and have at least one person to talk to about something personal), have strong feelings of belonging with their adoptive family, and feel extremely or very hopeful about their future. To date, research has been extremely limited on the health and well-being of adult adoptees, but our current understanding of the lasting challenges that children face post-adoption would lead one to predict that these lasting social, emotional, and behavioral difficulties would extend into adulthood. The current study gives hope that challenges experienced from foster care and adoption can be addressed.

With nearly 60% of adult adoptees reporting a current mental health problem, this was the most concerning finding. Reports of a current mental health problem did not vary based on the childhood pre-adoption experiences examined in this study. Specifically, child age at adoption, level of maltreatment harm to child, number of out-of-home placements prior to adoption, adoptive relationship to adoptive parent, and CBCL TPS in early adoption were not significantly associated with the adult adoptees' self-report of a current mental health problem. Despite the finding that 70% of adoptees experienced moderate to severe maltreatment at the time of removal from their home, adult adoptees appear to fare well in adulthood overall except for their mental health. The literature shows that all these pre-adoption variables can be predictors of negative outcomes later in life; therefore, the findings from this study may be an indicator of resiliency among adult adoptees for at least some of the outcomes examined in this study (Rolock & Perez, 2018; Vandivere, Malm, & Gross, 2021).

However, the findings show that a current mental health problem for adult adoptees varied by socio-demographic characteristics (race and gender), current physical health status, substance use, whether the adoptee had a mental health problem in childhood, feelings of hope for the future, and current living situation. Additionally, the finding that over 96% of children who had mental health problems also reported them as adults suggests that the CWS needs better strategies for supporting youth with mental health difficulties into adolescence and early adulthood. With the understanding that mental health is crucial for an individual's well-being (CDC, n.d.; Diener & Seligman, 2004; Lyubomirsky, King, & Diener, 2005) and that adoptees are twice as likely to experience psychiatric disorders, have contact with mental health services, or receive treatment in a psychiatric hospital (Behle & Pinquart, 2016; Fergusson, 2022), addressing adoptees' mental health problems is crucial for promoting overall health and well-being.

Although mental health problems among young adults in the United States are very common, the prevalence is much higher in this sample of adult adoptees. According to the National Institute of Mental Health (NIMH), 22.8% of adults in the United States reported Any Mental Illness[4] (National Institute of Mental Health NIMH, 2023). Prior research findings published from the NSCAW Adoption Study report that two-thirds of adoptees (66%) did receive some type of mental health services during their childhood (Ringeisen, Domanico, Stambaugh, Rolock, & White, 2023). However, the study did not collect information on the extent of services received by adoptees or the quality of these services.

In summary, the recalcitrance of mental health problems for children adopted out of the CWS and the discrepancy in mental health problems between adoptees and the general population warrants a call to action for early intervention and services that are trauma-informed, culturally responsive, strength-based, and consistently accessible throughout their adolescence and adulthood. Furthermore, mental health service providers should be knowledgeable about the experiences faced by children involved in the CWS.

Limitations

The current study has a small sample size ($n = 192$), and some analyses include very small cell sizes. Consequently, the study had a descriptive focus. Regression models were considered but were ultimately removed because of the limited sample. Without regression, or some other multivariate analytic approach, we were unable to control for variables that potentially confound the relationship between predictors and mental health problems as an adult (e.g., substance use and mental health problems as a child and any potentially confounding unobserved variables). It is also important to note that the sample derived for this study was deemed

relatively representative of NSCAW participants who exited foster care to adoption (see the section Sample). However, two variables (adoptive parent age and past maltreatment severity) were found to be different between responders and non-responders, and as such, there may be unobserved differences between the sample and the larger NSCAW population of interest. Another limitation of this study is that it lacks a comparison group – either children adopted without CWS involvement or children who have aged out of foster care without exiting to adoption. Future research should examine how adult adoptee well-being outcomes differ from those of other adults with CWS involvement who have not been adopted. As noted under the section Sample, previous analyses found very few significant differences between responders and non-responders; therefore, the sample is perceived to be representative of NSCAW participants who exited foster care to adoption, despite the small sample size.

Future directions

This study showed adoptees continue to report experiencing mental health problems, even a decade or more after their adoption. Research shows that early intervention services support children's cognitive, emotional, and behavioral skill development (Ramey et al., 1992; Rauh, Achenbach, Nurcombe, Howell, & Teti, 1988). Unfortunately, there are substantial waitlists for children who have been referred for evaluations to determine eligibility for early intervention services, and these waitlists have worsened because of the COVID-19 pandemic (Gillispie, 2021). Additional funding is likely necessary to increase the number of adoption-informed service providers and to support better meeting the mental health needs of adoptees. Efforts to increase funding and awareness of the need for early intervention is recommended.

Future studies should continue to seek the perspectives of both adoptees and adoptive parents, using qualitative and quantitative approaches. Hearing directly from adoptees about their experiences both before and after adoption is critical to lending a voice to those impacted by CWS involvement. Furthermore, longitudinal approaches, such as the one used in this study, are important to discern cause and effect between putative predictors of post-adoption difficulties (e.g., child behaviors, family cohesion and functioning, parental preparation for adoption; see the section Background) and post-adoption stability and well-being. The findings from this study, based on a small sample size, should be considered preliminary. Future studies should build upon this approach with larger sample sizes that will better serve as a platform for using more complex analytic models, such as Structural Equation Modeling (SEM) or machine leading models, to account for measurement bias, time order, and potentially confounding variables.

Conclusion

Despite separation from family and other trauma experienced from CWS involvement, most adults who exit foster care to adoption report overall good health, feelings of belonging with their adoptive family, and hope for the future. To the best of our knowledge, and despite its limitations, this study is the first that obtains the current perspectives of adult adoptees up to 10–15 years after adoption and then pairs this information with demographic, family, and well-being information for those same adoptees when they were children. This unique approach allows for a richer understanding of adoptees' experiences and perspectives that goes beyond childhood into adulthood from adoptees' own viewpoints.

Notes

1. Foster care is a "temporary service provided by States for children who cannot live with their families. Children in foster care may live with relatives or with unrelated foster parents. Foster care can also refer to placement settings such as group homes, residential care facilities, emergency shelters, and supervised independent living" (Child Welfare Information Gateway, 2023).
2. Adoption is the "social, emotional, and legal process in which children who will not be raised by their birth parents become full and permanent legal members of another family while maintaining genetic and psychological connections to their birth family" (Child Welfare Information Gateway, 2023).
3. This paper uses the term "adoptee" as person-first language to refer to an adult who joined a family by adoption as a child (see Adoptmatch, n.d. .] or; Frank, 2018 for more information).
4. "Any mental illness (AMI) is defined as a mental, behavioral, or emotional disorder. AMI can vary in impact, ranging from no impairment to mild, moderate, and even severe impairment" (National Institute of Mental Health NIMH, 2023).

Disclosure statement

No potential conflict of interest was reported by the author(s).

Notes on contributors

Rose Domanico, MA, is a research survey scientist in the Child, Youth, and Family Well-Being Research Program within the Data Practice Area's Behavioral Health Center at RTI International and has been RTI since 2016. She serves in various roles including as an evaluation researcher, a data collection task lead, and a project coordinator. Mrs. Domanico has experience handling and managing multiple aspects of the data collection process, including managing field interviewers, monitoring data collection progress, conducting telephone interviews with various stakeholders, and preparing reports on findings. Mrs. Domanico also has experience with projects that involve sensitive topics, including training interviewers on sensitivity and handling incoming telephone calls from respondents. (ORCID: 0000–0003–2644–8025; LinkedIn: www.linkedin.com/in/rosedomanico)

Heather Ringeisen, PhD, is the Vice President of the Health of Populations Division at RTI International, a nonprofit research institute dedicated to improving the human condition. Dr. Ringeisen is a behavioral health and child welfare researcher with expertise in both surveys and program evaluations focused on children, youth, adults and families. She is an expert in several of our nation's largest behavioral health surveillance efforts, including the National Survey of Drug Use and Health and the National Survey of Child and Adolescent Well-Being. Dr. Ringeisen has served on multiple federal committees that coordinate activities related to child welfare and children's mental health. Most recently she served on the National Center for Health Statistic's Child Technical Expert Panel for the National Health Interview Survey redesign effort. She is a former Society for Research in Child Development policy fellow and is a clinical child psychologist. (ORCID: 0000–0002–0763–3199)

Marianne Kluckman, MA, is a SAS programmer with more than 25 years of data management and statistical programming experience in research. She has also been a manager and project manager. Ms. Kluckman is experienced in using SAS to analyze large administrative claims and electronic health record databases as well as in running multiple data management platforms, indications, and client-specific formats. She also has experience managing data collection activities, designing survey instruments, and analyzing survey data.

Kevin White, PhD, is an Associate Professor in the School of Social Work at East Carolina University. He has over twelve years of research experience focused on understanding and improving safety, permanency, and well-being for at-risk youth and their families. Much of his research has explored evidence-based solutions for strengthening the lives of youth involved with the public child welfare system, including youth adopted out of foster care. His research interests developed out of thirteen years of practice as a child welfare caseworker and a school social worker. Dr. White obtained a MSW and PhD in Social Work from UNC-Chapel Hill and an MS in Data Science from Eastern University. Dr. White's research has served as an investigator or evaluator on three multi-year federally-funded projects, including the Permanency Innovations Initiative, the National Quality Improvement Center for Adoption and Guardianship Support and Preservation, and Understanding Post Adoption and Guardianship Instability. (ORCID: 0000–0002–9151–4423)

Nancy Rolock, PhD, (she|her|hers) is the **Henry L. Zucker Associate Professor of Social Work Practice** at the Jack, Joseph and Morton Mandel School of Applied Social Sciences, Case Western Reserve University. She was previously on faculty at the Helen Bader School of Social Welfare, University of Wisconsin – Milwaukee. She obtained her PhD from the Jane Addams College of Social Work, University of Illinois at Chicago, and her master's degree (MSW equivalent) from the University of Chicago. Dr. Rolock has conducted child welfare research since 1996 and is committed to anti-racist practice in her research. She served as the Principal Investigator two five-year federally funded projects: Understanding Post Adoption and Guardianship Instability that examined outcomes after adoption or guardianship finalization, and the National Quality Improvement Center for Adoption and Guardianship Support and Preservation that implemented and evaluated interventions in eight jurisdictions across the US. Dr. Rolock seeks to illuminate the risk and protective factors associated with the long-term family stability to better understand child and family well-being. Dr. Rolock is the Associate Editor for Adoption Quarterly, serves on the Board of Kinnect, a nonprofit agency, and is an elected Society for Social Work and Research Fellow. (ORCID: 0000–0002–9609-574X; https://www.ncbi.nlm.nih.gov/myncbi/nancy.rolock.1/bibliography/public/)

ORCID

Rose Domanico http://orcid.org/0000-0003-2644-8025
Heather Ringeisen http://orcid.org/0000-0002-0763-3199
Kevin White http://orcid.org/0000-0002-9151-4423
Nancy Rolock http://orcid.org/0000-0002-9609-574X

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