Co-Creating and Evaluating Community-Based Kinship Navigator Programs for Our Use: Partnering with Lived Experience Experts of Informal Kinship Caregivers and Navigators to Profile Caregiving Challenges, Address Program Implementation, and Identify Mechanisms of Change in Caregiver Well-Being in Washington State

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Abstract

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Informal kinship caregivers comprise the majority of caregivers of maltreated children who cannot stay safely with their biological parents, especially grandparent-headed households (U.S. Census Bureau, 2023). Despite sharing similar challenges and service needs, informal kinship caregivers receive significantly less support and services compared to their formal counterparts (Denby, 2015; Lin, 2014; Pittman, 2023). The disparity persists in benefits and service opportunities between these two groups (Smith, 2018). However, kinship navigator programs can address this imbalance by catering to both formal, licensed kinship caregivers and informal, unlicensed caregivers. Kinship navigators help families negotiate complicated eligibility criteria, service gaps, and access barriers that exacerbate racial and class inequities (Gleeson, 2020). Consequently, kinship navigator programs possess the potential not only to

support formal caregivers but also to reach informal caregivers who might not traditionally seek services. This approach aims to enhance community engagement and promote increased access to services, irrespective of the circumstances surrounding kinship care (Rushovich et al., 2021).

To address the lack of research evidence concerning informal kinship care (Berrick & Hernandez, 2016) and the significance of prevention-related needs within informal kinship care as a strategy for preventing formal foster care placements (Brown et al., 2024), this mixed-methods dissertation study aims to provide a comprehensive understanding of the service needs and utilization patterns of informal kinship caregivers. Additionally, it seeks to examine the service delivery and program implementation of the kinship navigator program in Washington State through a secondary analysis of quantitative survey data, linked administrative data, and qualitative focus group data. These data were originally collected as part of a university-service agency partnership between the University of Washington and local service agencies using a community-engaged research (CEnR) approach. Specifically, this dissertation will 1) identify the distinct patterns of caregiving challenges in informal kinship placement, as well as significant sociodemographic variations in such patterns, and the role of KNP engagement in the association between these distinct groups and sociodemographic determinants; 2) explore the street-level program implementation of KNP from perspectives of informal kinship caregivers and navigators with lived experience expertise (LEE) within a RE-AIM framework (i.e. Reach, Efficacy/Effectiveness, Adoption, Implementation, and Maintenance); and finally, 3) examine the mechanism of change in caregiver well-being of informal kinship caregivers attending the enhanced Kinship Navigator Program intervention in Washington States with a focus on the roles of service utilization, and caregiver stress reduction. Collectively, research findings will inform policy

change and tailor intervention to advance kinship first culture and future kinship-centered program implementation.

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To my beloved grandmothers, **He Huang** (黃賀) and **He Chen** (陳合),
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INTRODUCTION

Informal Kinship Caregiving in the United States

When parents are unable to care for their children for extended periods, kinship caregivers such as grandparents, aunts or uncles, tribal members, and other relatives can step in as primary caregivers (U.S. GAO, 2020). Close family friends, known as fictive kin, can also serve in this role. An estimated 2.2 - 2.5 million children were living with kinship caregivers in 2022, representing roughly 3% of the child population in the United States (Kids Count Data Center, 2023; U.S. Census Bureau, 2023). Grandparents account for approximately 59 to 63% of the household heads in these kinship, non-foster care arrangements (Radel et al., 2016; U.S. GAO, 2023). Recent US census data (2023) shows that an estimated 7.7 million grandparents lived with their grandchildren under 18. Among them, 2.5 million were responsible for their grandchildren, 39% of whom do not have the presence of a parent (U.S. Census Bureau, 2023). Another estimate from 2013 indicated that nearly one-quarter (22.3%) of children in nonparental care lived with other relatives and fictive kin (e.g., aunts, uncles, adult siblings, or family friends) in a nationally representative survey of households with children (Radel et al., 2016). The number of children in any form of kinship care is about 20 times the number of children in formal kinship care arrangements within the child welfare system (U.S. GAO, 2020).

Kinship care as a form of out-of-home placement (or foster care) can be categorized into three groups according to the federal definition (Berrick, 2020; Berrick & Hernandez, 2016; Child Welfare Information Gateway, 2018: 2). First, there is informal/independent kinship care, where there is no involvement of child welfare placement resources. Such activities include screening, supervision, training, or service access. Informal/independent kinship care operates outside of the rules and regulations of the court system. Second, formal kinship care

or kinship foster care involves a state child welfare agency. The agency has legal custody and places a child with a kinship caregiver in a supervised foster care arrangement. This can take the form of a voluntary placement agreement or kinship foster care under state-mandated kinship care. Third, voluntary kinship care, also known as kinship diversion under state-mediated care, occurs when a child welfare agency is involved. However, there is no state or tribal oversight and custody. Other definitions, such as 'formal' vs. 'informal' or 'public' vs. 'private' kinship caregivers, depend on the criteria of the kinship family's current involvement with and oversight of the child welfare system (i.e., open case) (Lee et al., 2016; Stein et al., 2014).

Certainly, The distinction between formal vs. informal kinship caregiving gives rise to disparities in benefits and service, which are especially pronounced when kinship caregivers transition between the two types (Berrick & Hernandez, 2016; Pittman, 2023) (See Appendix 1). Informal kinship caregivers may transition into formal kinship care based on various individual and systemic circumstances, taking the form of state-mandated (licensed) foster care, subsidized guardianship (kinship guardianship), kinship adoption, and voluntary placement agreement (VPA). The living conditions and well-being of children become more nuanced within the evolving landscape of kinship care arrangements. This evolution is influenced by the screening and/or home assessment/home study of the caregiver, legal rights, and their reversibility for kinship caregivers, as well as the resources and services provided by the state, including post-permanency (Berrick & Hernandez, 2016; Pittman, 2023). In general, informal kinship caregivers experience disparities in public benefits, resources, and services throughout the course of caregiving.

The majority of kinship care arrangements occur outside the foster care system administered by child welfare agencies. Primary caregivers in these living arrangements are not licensed foster parents and operate without the oversight of child welfare systems. Even

within formal kinship caregivers experiencing system oversight, only half are licensed (Annie Casey Foundation, 2012), whereas unlicensed kinship caregivers receive benefits higher than non-parental child-only TANF but lower than foster care subsidy (Berrick & Hernandez, 2016). In a nationally representative estimate of children in nonparental care (Bramlett et al., 2017), approximately 90% of these children were in non-public kinship care. Among these private kinship care, 49% were in private kinship care without any prior child welfare involvement, 21.1% were in voluntary kinship care with an open child protective services (CPS) case, and 19% were in voluntary kinship care without a prior open CPS case but with other CPS involvement in the kinship care placement. In a CPS-investigated sample, children in informal kinship care, compared to those in formal kin or non-kin foster care, tended to have a lower likelihood of belonging to a Hispanic race/ethnic background and received fewer special school services. Additionally, their primary caregivers reported poorer self-rated health (Stein et al., 2014).

Historically, informal kinship care has been a tradition of depending on informal family networks within communities of color, particularly among African Americans and American Indian and Alaska Native communities (Day et al., 2023; Denby, 2015; Pittman, 2023; Rushovich et al., 2021). According to the Annie Casey Foundation (2013), one in five African American children will spend a portion of their childhood in a relative's household. In African American communities, the practice of kinship care without government support has been replied upon throughout history, spanning the time of slavery, survival amidst Jim Crow laws through the civil rights era, as generations of parents were absent due to structural racism in its many forms (Rankin, 2002). Even in the post-civil movement era, informal kinship caregivers of marginalized African American grandmothers continue to lead the majority of skipped-generation households, a phenomenon attributed to structural factors

(e.g. poverty, racism and classism from ‘punitive’ systems of the police and child welfare) resulting in parental absence (Pittman, 2023).

In actuality, informal kinship caregivers may avoid formal interventions or other forms of intrusion from systems of child welfare (e.g., being supervised by child welfare agencies, having to follow child welfare regulations), juvenile probation, and other government entities to prevent children from being placed in a non-relative home (Nelson et al., 2010; Smith, 2018). They may refrain from becoming formal kinship caregivers through legal custody arrangements due to complexities, fear, and stress surrounding court procedures, state intervention, and child welfare oversight, especially in communities of color (Day, 2023; Denby, 2015; Goering, 2024; Pittman, 2023; Washington State Department of Social and Health Services, n.d.). For instance, courts, potential triggers of historical trauma, can deter AI/AN kinship caregivers' decisions to pursue formal kinship arrangements (Day et al., 2023). Informal kinship caregivers of unaccompanied immigrant children may be hesitant to proactively seek formal support due to mistrust or fear of government involvement (Goering & Lopez, 2024).

African American grandmothers who are kinship caregivers may remain in an informal role to resist conforming to the expectations set for their formal counterparts involved in the child welfare system or to avoid having a legal relationship (e.g., subsidized kinship guardianship, kinship adoption) with the children in their care (Pittman, 2023). This resistance stems from their desire to maintain greater personal agency in navigating resources and services. They aim to avoid transitioning from a position of 'coerced motherhood'—providing parenting guidance to daughters and partial resources to grandchildren at risk of inadequate care—to a position of full 'motherhood,' which entails taking on all the social, emotional, and legal obligations of a mother's role. Alternatively, some informal caregivers may simply prefer to operate without oversight from the state,

including the power of courts and child welfare systems; others may use the 'punitive' systems only when they can no longer protect the well-being of their grandchildren from the role of coerced motherhood (Pittman, 2023).

Benefits and Challenges of Informal Kinship Care

Kinship care benefits children in care by minimizing loss and trauma associated with separation from their origin family, neighborhood, or communities; preserving cultural identity; increasing placement stability (or fewer placement disruptions); improving behavioral and mental health outcomes; promoting sibling ties and more likely ending up in guardianships (or legal permanency) in relation to non-kinship care (Child Welfare Information Gateway, 2022; Winokur et al., 2014). Importantly, the bonding social capital, a known and trusted relationship between children and kinship caregivers, can result in greater possibilities of relational and physical permanency (Berrick, 2020; Testa, Bruhn, & Helton, 2010).

However, kinship caregivers face a wide range of challenges while providing a safe and stable caring environment in the best interests of relative children. These include limited financial resources, needing assistance with legal resources related to adoption and custody, accessing housing, affordable child care and caregiver and child health-related service, obtaining information about education, lack of awareness of supportive services, navigating fragmented and inconsistent service systems across agencies and governments, among others (U.S. GAO, 2020, 2023). Challenges facing informal kinship caregivers can be more profound as they are not eligible for many kinship service programs based on household income, status of being a custodian of the relative children, or involvement with child welfare systems (U.S. GAO, 2020, 2023; Lee at al., 2016). And, since informal kinship caregivers have no legal relationships with relative children, they generally contend with the greatest barriers to obtaining resources and services critical for children in their care (Pittman, 2023).

Additionally, informal kinship caregivers' parenting challenges may be even exacerbated by individual and interpersonal factors such as caregiver age-related health well-being, parenting stress, and social isolation (U.S. GAO, 2023). System factors even set barriers to informal kinship care such as lack of federal funding to support this population, strict eligibility for qualifying for licensure-based benefits such as Guardianship Assistance Program (GAP), states not accessing federal funds exclusively for evidence-based programs, federal inflexibility in evaluation requirements for states to qualify for Title IV-E reimbursements for kinship care services, among others. (U.S. GAO, 2020, 2023). In spite of many challenges, most informal kinship caregivers perceived caregiving experiences as positive, noting relative children's safety and growth as their priority (Koh et al., 2022).

Children Who Are in Informal Kinship Care

Children enter kinship care due to various reasons, including parental substance use (especially after the opioid epidemic), parental incarceration, household poverty, a parent's death, parental unwillingness to provide care, and financial problems (U.S. GAO, 2020). Children in non-public kinship care may also have experienced other adverse childhood experiences (ACEs) prior to kinship care such as parental mental illness, witnessing domestic violence in the household, and being the victim of or witnessing violence in the neighborhood, especially if they were involved in an open case with CPS (Bramlett et al., 2017). Notably, children with a higher number of accumulated ACEs were more likely to be in informal kinship care rather than formal kinship care (Bramlett et al., 2017). Additionally, ACEs place children at greater risk for internalizing (e.g., ADHD, anxiety, depression, PTSD, suicidal ideation, traumatic grief) and externalizing problems (e.g., delinquency, disruptive behavior, sexualized behavior, substance use, running away) (Fowler et al., 2023a).

Children in informal kinship care have comparable chronic health conditions and overall poor health compared to those in formal kinship care (Stein et al., 2014). However,

both children in formal and informal kinship care are more likely to live with older caregivers who have limited economic and educational resources compared to their counterparts in foster care. In addition, only those with an open CPS case tend to utilize more special care health needs (SCHN) and mental health services (Bramlett et al., 2017; Stein et al., 2014).

It is worth noting that children with a greater number of ACEs live with informal kinship caregivers without current involvement in child welfare services. Children in both formal and informal kinship care tend to reside in households with fewer economic and educational resources compared to foster care placements. While kin-first placement policies prioritize kinship care, there is a discrepancy between the need and access to support between formal and informal kinship care households, which may jeopardize the long-term well-being of children, particularly those living without system-level support offered by formal foster care (Stein et al., 2014).

Characteristics of Informal Kinship Caregivers

There is no centralized structure (e.g., administrative dataset, child welfare system) in place to track and identify children and their caregivers in informal kinship care (Koh et al., 2022; Stein et al., 2014). Overall, American Indian and Alaskan Native, African American, Latinx American, refugee, immigrant, and non-English speaking families are overrepresented among kinship caregiving families (Day et al., 2023; Rodriguez-Jenkins et al., 2020). Moreover, grandparents of color are more likely to transition to multigenerational or skipped-generation households earlier, particularly African-American and Hispanic grandparents with limited resources (Luo et al., 2012). Unlike parents with access to both formal and informal support resources, informal kinship caregivers often experience heightened isolation while caring for relative children due to inadequate supportive social networks in a downsized family unit (Annie Casey Foundation, 2023).

Specifically, informal kinship caregivers were more likely to be older, have fewer economic resources, report poorer health, and provide care for children who received fewer school-based services compared to formal kinship caregivers and foster parents (Bramlett et al., 2017; Stein et al., 2014). In a nationally representative estimate, it was found that the majority of informal kinship caregivers were female (52.2%), non-Hispanic African American (36.3%), living in poor households with incomes at 100 - 200% below the federal poverty level (30.9%), and aged below 55 (34.8%) (Bramlett et al., 2017). In comparison to formal kinship caregivers, informal kinship caregivers tend to be over 70 years old, come from households experiencing extreme poverty (over 400% of the federal poverty level), and care for more relative children aged 9-12 (Bramlett et al., 2017).

Two Worlds under the Same Roof: Limited, Uneven Federal- and State-Level Policies, Programs, and Supports Available for Informal Kinship Caregivers

Federal policy has historically been vague about kinship care, with a gradual recognition of the approach of selective kinship care as a source of physical and legal permanency for child placement (Geen & Berrick, 2002). Federal kinship policies have dichotomized kinship caregivers into formal and informal entities, creating benefit and service disparities between them. Discrepancies in accessibility of welfare knowledge, benefits, and services between formal and informal kinship caregivers have long persisted alongside the evolution of kinship care policy and service.

Kinship care, especially informal arrangements, was originally seen as a cultural practice within communities of color. An example is the 1978 Indian Child Welfare Act (ICWA), which first authorized AI/AN children to be placed "within reasonable proximity to his or her home" and with "a member of the Indian child's extended family." However, most state jurisdictions are resistant to complying with the ICWA goals. Only 10 states—California, Iowa, Michigan, Minnesota, Nebraska, New Mexico, Oklahoma, Oregon, Washington, and

Wisconsin—recognized the kin-first goal of ICWA and worked with Tribes under Tribal sovereignty to codify ICWA into state legislation. Some even augmented this goal by providing supportive services to extended families to improve kinship placement, mandating courts to make “active efforts” in notifying Tribes of voluntary proceedings (e.g., private adoption), and sanctioning Tribal customary adoption without terminating parental rights (Linjean & Weaver, 2023). Further, the passage of the Tribal Foster Care and Adoption Act of 2007 allowed tribes to receive direct funds to support programs operated by Indian organizations needed by families (including custodial kinship caregivers) to prevent child placement (Cross et al., 2010). While ICWA and the Tribal Foster Care and Adoption Act stipulate formal kinship care, there is no legislation about informal kinship care in Tribal jurisdictions.

Aside from Tribes, kinship placement stood in contrast to the federal-level family-centered policies that emphasized family reunification with biological parents (e.g., family reunification). Until the 1980s, amid the rise of the opioid epidemic, increasing out-of-home placement with a diminishing supply of foster homes, a negative public perception of foster care, as well as several lawsuits combined with advocacy efforts, kinship care emerged as a viable option for foster care when children came into the attention of state custody (Geen & Berrick, 2002; Pittman, 2023; Rankin, 2002). In response to the foster care crisis of the burgeoning foster care population in the 1970s, of which many were unnecessary, the 1980 Adoption Assistance and Child Welfare Act (AACWA) was passed. AACWA, also called the Family Reunification Act, requires States to make ‘reasonable efforts’ to prevent out-of-home child placement and to support family reunification with biological parents (Johnson et al., 2023). Kinship care was first recognized as a recommended choice as the least detrimental and restrictive out-of-home placement. Kinship caregivers, either formal or informal, were not eligible for foster care benefits and services. Since 1998

in Illinois, only a limited number of cases have had found kinship caregivers entitled to foster care payments. This entitlement applied if they met the standards set for non-kin foster care and if the relative child was eligible for Aid to Families with Dependent Children (AFDC) regardless of income level, in reference to the Miller v Youakim Supreme Court decision in 1979 (Geen, 2004; Gleeson, 1996).

The Personal Responsibility and Work Opportunity Reconciliation Act of 1996 (PRWORA) reformed AFDC by replacing its open-ended entitlement with a five-year time limit combined with a work requirement for most recipients—leading to the establishment of Temporary Assistance to Needy Families (TANF). Notably, Federal TANF rules do not require states to impose work requirements, income ceiling, or a benefit time limit on nonparental caregivers (e.g., kinship caregivers) to be eligible for nonparental child-only TANF (Nelson et al., 2010), but states may choose to do so (Goldsen & Hawkins, 2012).

PRWORA marked the first explicit federal guidance supporting a preference for kinship placement and the continued use of kinship care in child welfare (Geen & Berrick, 2002). As part of the PRWORA reform, kinship care was categorized into formal and informal arrangements. Informal kinship caregivers are accepted as formal kinship caregivers as long as they meet state child protection standards (e.g., criminal background check, child abuse registry check, health check-up, parent training) outlined in the 1996 PRWORA (42 U.S.C. 671(a)(19)). They have the option to become licensed formal kinship caregivers, making them eligible for benefits and services equivalent to non-relative foster parents. Alternatively, they can choose to remain informal kinship caregivers, qualifying for child-only TANF benefits or TANF-family grants if eligible. These reforms reduced the number of families receiving assistance, transformed informal kinship caregivers into formal kinship caregivers and accelerated the proportion of kinship care in foster care (Lorkavich et al., 2004; Pittman,

2023). However, lots of informal kinship caregivers do not know they are qualified for TANF grant (Koh et. al, 2022).

The 1997 Adoption and Safe Families Act (ASFA) further recognized the significance of kinship care as it aligns with its goal of permanency. ASFA expedited both legal permanency (i.e. adoption and subsidized guardianship) and physical permanency (i.e. placement stability, timely reunification) for children unable to be reunified with their parents, in contrast to the family reunification focus associated with AACWA. This legislation aimed to reduce the time a child stays and drifts in care and to move them to a permanent home after a 'reasonable' time-frame of family reunification services. This response was prompted by the inadequacies in achieving permanency in child welfare jurisdictions and the ineffective enforcement of AACWA. Issues included fluctuations in child placement, drift in care, a lack of judicious termination of parental rights leading to a slowdown in adoption rate, failures in the child welfare system (e.g., insufficient workforce and training, inadequate services for birth families), and high-profile child abuse cases like those of Erik Dawood and Elisa Izquierdo (Lindner, 2023; Lindner & Hanlon, 2023; Moye & Rinker, 2002; Wulczyne, Chen & Hislop, 2006; Wulczyne, Hislop & Chen, 2005).

To facilitate the permanency goals of ASFA, permanency hearings have been introduced, scheduled every 12 months for children spending more than 15 out of the last 22 months in care (i.e., the "15/22 provision"). Termination proceedings of parental rights (TPR) are initiated, with exceptions for children in kinship care, cases where it is not in the child's best interest, or when reasonable efforts for reunification have failed (ASFA, RCW 13.24.145). ASFA also acknowledged the stability of placement in kinship care, empowering state governments to treat formal kinship caregivers differently from foster parents. It designated them as "fit and willing relatives" capable of providing a "planned permanent living arrangement" and allowed for the waiver of child protection standards unrelated to safety

(e.g., living-space requirements and training) and of the timeframe for terminating parental rights on a case-by-case basis if the child is in kinship care (Geen, 2004; Geen & Berrick, 2002). As a result, 43 states had a separate and/or less stringent licensing process (e.g., waiving some standard) for kin than non-kin (Geen 2004). Most states would place children with kin before they met all licensure standards. In addition, the final ASFA rule of kinship care licensure passed in 2000, Title-IV E reimbursement for those waived, provisional licensed or emergency kin homes were prohibited. States decided to use State funds or TANF to financially support children in state custody who were not eligible for the federal reimbursement of kinship foster care in a separate approval process of licensing (Geen, 2004; Jantz, 2002). At the same time, states are allowed to experiment with subsidized guardianship to encourage kinship caregivers to make a lifetime commitment without terminating parental rights (Goldsen & Hawkins, 2012). Formal and informal kinship caregivers who fell outside of the state-level licensing standard should seek either state-level support for eligible voluntary kinship placement or nonparental child-only TANF or TANF-family grant.

Given the federal policy of ASFA, with its expedited time frame for family reunification and termination of parental rights (TPR), more kinship caregivers should be involved in achieving the goal of physical permanency (i.e., placement stability) and legal permanency (i.e., guardianship or adoption). However, the licensing policies and practice were crucial in determining the eligibility of financial support (Geen, 2004). They created a divide between formal kinship care vs foster care and informal kinship care vs formal kinship care. Licensure combined with full-board foster care payment (i.e. higher than child-only TANF) provided an incentive for informal kinship caregivers to be a part of formal kinship caregivers in the child welfare system (Geen & Berrick, 2002; Geen 2004). According to Sakai and colleagues (2011), the service disparities between formal kinship caregivers and non-relative foster

caregivers were 1:4 for parent training and 1:7 for access to respite care and support groups. Unlicensed kinship caregivers lack the needed financial support and oversight compared to licensed providers (Annie E. Casey Foundation, 2013). These imply unlicensed, informal kinship caregivers outside of the child welfare system received even fewer services than formal kinship caregivers and non-relative foster parents.

Beyond the realm of child welfare, the Older Americans Act of 1965 was amended in 2000 to allocate funds for the establishment of the National Family Caregiver Support Program (NFCSP) (Generations United, 2003). This program serves as a resource for providing non-financial supportive services to caregivers aged over 60, including both formal and informal kinship caregivers. These caregivers either live with the relative child as the primary caregiver and have a legal relationship with the child, such as guardianship or custody. The NFCSP is designed to work in collaboration with other state and community-based services to offer a coordinated set of support. The program encompasses five categories of services: providing information to caregivers about available services, assisting caregivers in accessing these services, offering individual counseling, organizing support groups and caregiver training, providing respite care, and offering supplemental services on a limited basis. However, it's important to highlight that the NFCSP programs funds allocated to kinship caregivers of relative children only constitute 10% of this federal fund (Generations United, 2003). Additionally, it was documented that NFCSP programs were only eligible for informal kinship caregivers in 14 states (Ivey, 2022).

Furthermore, the Fostering Connections to Success and Increasing Adoption Act of 2008 (FCA) continued to prioritize kinship care as the preferred out-of-home placement. Additionally, FC initiated its federal-level focus, which encompassed informal kinship caregivers as part of the policy effort to facilitate kinship diversion (voluntary care) (Denby, 2015). Kinship diversion is defined as "a child welfare agency investigates a report of child

abuse or neglect, determines that a child cannot remain safely with parents/guardians, and helps facilitate that child's care by a relative instead of bringing the child into state custody" (Annie E. Casey Foundation, 2013, p. 2).

FCA further emphasizes the goal of legal permanency. Specifically, FCA mandates that states actively search for and identify relatives for potential kinship care placement within 30 days, including permanent kinship care (Bramlett et al., 2017). FCA also facilitates the (re)connection of children and youth with relatives and provides incentives for relative adoption after a reasonable, time-framed case plan, rather than prioritizing efforts to keep children in the care of parents. FCA allows states to opt in creating statewide Guardianship Assistance Program (GAP) (Goldsen & Hawkins, 2012).

Specifically, Title IV-E of the Social Security Act funds the Guardianship Assistance Program (GAP), otherwise known as subsidized guardianship, as part of FC. This program aims to support formal kinship caregivers responsible for relative children in state custody who are not eligible for child-only TANF grant and who later assume guardianship as an exit for permanency. The guardianship payment is higher than child-onlyTANF grant but lower than foster care payment. GAP is available for children who have been in licensed formal kinship care for at least six months and whose permanency plan is not reunification (Children’s Bureau, 2023). Since most children in kinship care are not in state custody, they are not likely to receive subsidized guardianships or child welfare services (Nelson et al., 2010). Instead, GAPs provide an option for some vulnerable populations involved in formal kinship care, such as older foster children and foster children of parents with physical and mental disabilities, to maintain ties with parents without terminating parental rights and to prevent being adopted. It also offers a solution for relatives who prefer long-term caregiving over adoption due to family dynamics between the original family and relative families (Grandfamilies.org, 2024).

Additionally, FCA, a significant legislative effort, aimed to address the distinctive challenges faced by both formal and informal kinship caregivers, ultimately supporting the safety, permanence, and well-being of children and youth in their care and preventing their removal into foster care (Rushovich et al., 2017) through Family Connection grants, authorized by the FCA. This three-year grant supported the development of kinship navigation and established seven demonstration sites to develop formal provisions of services accessible to informal kinship caregivers (Denby, 2015; Wallace & Eunju, 2013).

Despite these policy initiatives driven by FCA, most states have remained less inclined to implement non-mandatory services or programs designed to support kinship caregivers beyond the mandatory family search requirement (Koh, Ware & Lee, 2022). The availability of supportive services for kinship caregivers is optional and is still distributed unevenly between formal/licensed kinship caregivers and informal/unlicensed kinship caregivers. Informal kinship caregivers are still eligible for substantially less support and services. For example, child-only TANF subsidies, Supplemental Security Income (SSI), Medicaid, and the Supplemental Nutrition Assistance Program (SNAP, formerly known as Food Stamps) are selective and means-tested. Even in cases where informal or unlicensed kinship caregivers are eligible for a child-only TANF subsidy, subsidies are typically provided to licensed formal kinship caregivers in most states (Koh, Ware & Lee, 2022). These funds for informal kinship care are generally lower than formal foster care maintenance payments and decrease on a sliding scale for each additional relative child (Berrick & Boyd, 2016; DHHS, 2001). In addition, supportive services from the National Family Caregiver Support Program was reauthorized in 2016 and expanded the eligibility of informal kinship caregivers from age 60 over to 55. Many states were still not utilizing the federal grants to develop the National Family Caregiver Support Program and even the Kinship Navigator program (GAO, 2020). Criticism has been directed at services for formal kinship caregivers in most states, citing a

lack of sufficient assistance in accessing essential information, resources, and support for informal kinship caregivers (Letiecq et al., 2008).

In recent years, there has been another resurgence in policies and practices favoring kinship care. This shift is emphasized in the Family First Prevention Services Act of 2018 (FFPSA). This shift has gained momentum, particularly as non-relative out-of-home placements were recognized as contributing to childhood adversities and traumas among youth at risk of aging out of care. FFPSA was signed to, through federal reimbursement, enhance supportive services especially in-home parent skill-based programs, evidence-based mental health services, and substance abuse prevention and treatment services for up to 12 months to help children remain at home, as well as kinship navigator programs to reduce unnecessary use of congregate care (H.R. 1892. 507). These preventive services are aimed at parents and kinship caregivers of children facing imminent placement into public foster care. This expansion of options enables families to meet their needs without the necessity of formally placing children into state custody (Testa, Hill & Ingram, 2020). Kinship Navigator programs can bridge the gap of service accessibility by assisting both licensed/formal and unlicensed/informal caregivers and promoting service access for diverse communities (Rushovich et al., 2021). Kinship Navigator programs also carry significant implications for reducing inequitable access to support among informal kinship caregivers and their relative children.

Kinship navigator programs were launched more than a decade ago, and their effectiveness examined across seven demonstration sites by the Family Connect grants under Child Welfare/TANF collaboration in 2012, and have only recently been supported by IV-E new kinship navigator program grants and IV-B subpart 2 in 2018 for its development, enhancement, or evaluation (Child Welfare Information Gateway, 2019; Lee et al., 2016). That is, the Children's Bureau will appropriate and reimburse the federal Title IV-E funds to

States, Tribes, and Territories up to 50% of the expenditures to provide kinship navigator programs that meet the evidence base of program requirements, or are deemed as the minimum ‘promising’ level of evidence base, as articulated by the (Clearinghouse) (Children's Bureau, 2020; p.3). Specifically, the Title IV-E Prevention Services Clearinghouse (2023) rates the evidence of the effectiveness of Kinship Navigator programs as either well-supported, supported, promising, or currently does not meet criteria (U.S. Department of Health and Human Services, 2019). To date, the Department of Health and Human Services (DHHS) have determined five kinship navigator programs (i.e. Arizona, Colorado, Nevada, Ohio, and Washington) as evidence-based.

Still, kinship navigator programs remain one of few service programs accessible for informal kinship caregivers in addition to TANF, SNAP, and National Family Caregiver Support Program (if kinship caregivers age over 55). However, Kinship Navigator programs reviewed by Title IV-E Prevention Services Clearinghouse have targeted more formal kinship caregivers than informal kinship caregivers (e.g., Colorado Kinnected Kinship Navigator Program, Ohio's Kinship Supports Intervention/ProtectOHIO) (Forehand et al., 2022; Wheeler et al., 2020). Extra outreach efforts needed to be made to reach the larger, informal kinship caregivers who may not be connected to child welfare systems (Child Welfare Information Gateway, 2019).

Limited Legislative Formal Support for Informal Kinship Caregivers: Child-Only TANF and KNP

Existing legislative policies favor formal kinship care and have excluded informal kinship caregivers from accessing benefits and services beyond child-only TANF and KNP. Under FFPSA, informal kinship care is expected to serve as a prevention strategy to keep children from entering formal foster care placements. However, informal kinship caregivers have long received limited formal support from the States. However, informal kinship

caregivers have historically been provided with limited formal support by state agencies. Nonparental child-only TANF is the primary form of formal social assistance for informal kinship caregivers. Kinship care households account for 41% of non-parental child-only TANF recipients, two-thirds of whom are grandparents (Golden & Hawkins, 2012). Generally, nonparental child-only TANF recipients are better off than other TANF counterparts because eligible caregivers are not subject to income limits (Goldsen & Hawkins, 2012). In Washington State, nonparental child-only TANF recipients make up 64% of all child-only TANF recipients, with approximately 51% being kinship caregivers and 10% being guardians or In Loco Parentis caregivers (e.g., fictive kin) (Washington State Department of Social & Health Services, 2023). It is also important to note that 60% of unaccompanied immigrant children are released to kin sponsors with citizenship. However, undocumented nonparental kin families are not eligible for child-only TANF and other public benefits (Goering & Lopez, 2024).

However, kinship caregivers lack knowledge of this social assistance and face difficulties navigating through systems. Access to TANF grants remains notably limited, with only 12% of eligible kinship families receiving child-only grants across the country (Mauldon, Speiglman, Sogar, & Stagner, 2012). Moreover, Casanueva and colleagues (2020) found that children diverted to informal kinship care experience poorer outcomes in areas such as immunizations, dental care, Medicaid enrollment, TANF grants, and Supplemental Security Income (SSI) compared to children placed in public custody.

Outside of child-only TANF, KNP is the only formal support for informal kinship caregivers. Roles of kinship navigators are increasingly crucial for mitigating the benefit and service disparities facing informal kinship caregivers. KNPs help families negotiate complicated eligibility criteria, service gaps and access barriers that exacerbate racial and class inequities (Gleeson, 2020). Contacting kinship navigators, informal kinship caregivers

should receive information about TANF child-only grants, as well as any other benefits such as SNAP, childcare, and Social Security, and supportive services (Testa, Hill & Ingram, 2020). Kinship navigator programs under FFPSA can also boost TANF participation by providing informal kinship caregivers with accurate information and helping them applying for and receiving TANF cash assistance (Testa, Hill & Ingram, 2020). Relatedly, as FFPSA calls for the evidence base of service programs, it is important to holistically embed locally-contextualized, prevention-related needs into KNP through transferral pathways. For example, preventive legal services such as free access to attorney representations have been crucial for preventing children from being in state custody, yet it has not been addressed by FFPSA as an evidence-based service alone (Brown et al., 2024).

An Introduction to Kinship Navigator Programs

The vast majority of families in informal kinship care are primarily serviced through kinship navigator programs. These programs are designed to remove barriers to and facilitate the utilization of services needed by kinship care families to improve children's outcomes, address caregiver needs, and reduce the need for substantial involvement in child welfare systems (Denby, 2015).

According to federal law, a Kinship Navigator Program is defined as ‘a program to assist kinship caregivers in learning about, finding, and using existing supportive programs and services to meet the needs of the children they are raising and their own needs, and to promote effective partnerships among public and private agencies to ensure kinship caregiver families are served (42 U.S.C § 627 (a)(1)). Support services may involve a variety of offerings, including financial assistance (e.g., TANF, SNAP, Social Security), educational opportunities, training sessions, support groups, referrals to various social, behavioral, or health services, and aid in navigating government and other forms of assistance, whether financial or otherwise (Testa, Hill & Ingram, 2020).

Under the amended Social Security Act, Title 42 The Public Health and Welfare, the Kinship Navigator Program has twofold objectives. Firstly, it aims to improve caregivers' knowledge of services and help them identify and access the services kinship caregivers need for themselves and their children in care. In other words, kinship navigator programs are not intended to provide the services needed by the families of kinship caregivers (Child Welfare Information Gateway, 2019). Secondly, the program aims to promote effective partnerships among public and private agencies to ensure kinship caregiver families are served (Annie Casey Foundation, 2018).

Kinship navigator programs provide information, referral, and follow-up services to kinship caregivers instead of direct concrete services. A kinship navigator is made accessible for consultation, information dissemination, service transfer, and coordination subsequent to a kinship caregiver's application or referral for services. Kinship navigators facilitate kinship caregivers' connection to critical and necessary benefits and services for themselves or the children under their care (Annie Casey Foundation, 2023). These programs also serve to enhance the understanding of agencies and providers regarding the needs of families led by relatives, offering education on the systems that must be navigated to access support (Annie Casey Foundation, 2023). Importantly, navigators and related service providers take on the burden of navigation and coordination so that involved families do not fall through the cracks and result in child removal (Brown et al., 2024).

Kinship navigators play a pivotal role in helping kinship caregivers navigate various systems that impact them such as child welfare, aging, education, housing, and healthcare. The services provided by kinship navigator programs vary by program design and the identified needs within respective states (Day et al., 2023). Some programs, such as those in Colorado and Pennsylvania, tailor their services based on the involvement of children in care, distinguishing between formal and informal kinship caregivers. Consequently, kinship

navigators collaborate with child protective services and may assume related roles (e.g., family finding, coordinating family group decision-making meetings) to achieve case plans for formal kinship caregivers or simply provide supportive services for informal kinship caregivers (Alessi et al., 2022; Forehand, G., Alessi, L., & Winokur, M., 2022). In contrast, other states, including Arizona, Ohio, and Nevada, adopt universal family-centered supportive services, irrespective of system involvement (Preston, 2021a, 2021b; Schmidt & Treinen, 2021; Wheeler et al., 2016).

Gentles-Gibbs & Zema (2020) found that the program effectiveness of a kinship navigator program should gear the program towards improving permanency outcomes, enhancing the child and family well-being, improving service relations and users' attitudes toward services, and helping to equip caregivers with the skills necessary for caregiving. However, existing evidence of program effectiveness primarily focuses on child safety (Littlewood et al., 2020) and permanency outcomes (Forehand, Alessi & Winokur, 2022; Lee et al., 2021; Littlewood et al., 2020; Preston, 2021a, 2021b; Schmidt & Treinen, 2017; Schmidt & Treinen, 2021; Wheeler et al., 2020). The Clearinghouse's validated evidence (2023) also strongly supports child permanency in various programs. For instance, the Arizona Kinship Support Services proved effective in achieving the least restrictive placement (effect size = 0.15) and permanent exits (effect size = 0.32). The Colorado Kinnected Kinship Navigator Program demonstrated success in planned permanent exits (effect size = 0.27), while the Nevada Foster Kinship Navigator Program exhibited placement stability (effect size = 0.63). Ohio's Protec Ohio program showcased placement stability (effect size = 0.13) and prevention of re-entry into placement (effect size = 0.11) (Title IV-E Prevention Services Clearinghouse, 2023). Notably, these four evidence-based interventions only included formal kinship families in their evaluations (Steinmetz & Fox 2023).

The available evidence regarding the impact of the kinship navigator program on the well-being of the kinship caregiver remains limited. Less attention has been given to the well-being of kinship caregivers, such as aspects of caregiver stress and social support (Feldman & Fertig, 2013), as well as the overall well-being of kinship caregivers (University of Washington School of Social Work, 2023).

Dissertation Study

Study Site

The study site was the Washington State jurisdictions implementing the kinship navigator program, a joint effort of the Aging and Long-Term Support Administration (ALTSA) and the Department of Children, Youth, and Families (DCYF), in partnership with Partners for Our Children (P4C) at the School of Social Work, University of Washington, Seattle. Stakeholders in this program, involved in the evaluation process of community engaged research (CER), include service users (i.e., kinship caregivers), service providers (i.e., kinship navigators), and members of the Kinship Caregiver Oversight Committee (KCOC).

Three sets of data were collected to inform the development of the enhanced kinship navigator program. Firstly, an environmental scan, a self-administered survey, was distributed statewide to kinship caregivers via mass mailings in Washington State in 2019 and 2020, identified by multiple governmental support organizations including DCYF, ALTSA, and the Economic Services Administration (ESA) (Schlatter et al., 2023). This survey, available in English and Spanish, was designed based on previous research in collaboration with community input within the KCOC (Schlatter et al., 2023). It covered sociodemographic characteristics (including the child), reasons for informal or formal kinship care, top three pressing unmet needs and challenges, current sources of support, and living arrangements (See Appendix 1.1). Subjects gave consent at the survey's outset. Those who completed it

received $15 as compensation and were entered into a lottery for one of twenty $50 gift cards (Schlatter et al., 2023).

Secondly, focus groups were conducted to gather the lived experiences of kinship navigators and 13 informal kinship caregivers in 2020 and 2021. The focus group protocol was developed collaboratively by P4C researchers, kinship navigators within the KCOC, and staff members from DCYF and ALTSA (Gómez et al., 2024). The interview guide for kinship caregivers comprised 10 prompts regarding their experience with the KNP, needs met or unmet through it, and suggestions for service provision (Gómez et al., 2024). For kinship navigators, the interview guide included 20 prompts covering characteristics of their service population, top cited needs, KNP model description, fidelity, service model adaptation, cultural relevance, community partnerships, implementation barriers, tracking client satisfaction, contact with child welfare, child safety, and permanency (See Appendix 2.1). Three groups were conducted, each lasting an average of 50 minutes. Interviews were audio-recorded and transcribed verbatim in English.

Thirdly, intervention data including baseline needs assessment, three-month and six-month follow-ups after intake (updated needs assessment and goal setting or case closure), and six-month and twelve-month satisfaction surveys after case closure were collected from intervention participants and comparison participants in the KNP in Washington. Further details are provided in the Study Procedure of the Enhanced Kinship Navigator Program in Washington State.

The current study is a secondary analysis of de-identified data. This study has gained Institutional Review Board (IRB) approval from the University of Washington Human Subjects Division (See Appendix 2).

Conceptual Framework for the Dissertation

Adapted Andersen's Model of Service Utilization in Response to Kinship Caregiving

Andersen's Model of Service Utilization guides the analysis of three papers throughout this dissertation. This behavioral model of service utilization was developed to examine the recursive dynamics of factors in health service utilization. Essentially, it is a multilevel model that includes both individual and contextual determinants of service utilization. This analytic framework has been widely applied to areas of service utilization by older adults or caregivers with an array of service needs. For example, supportive services for kinship caregivers (Coleman & Wu, 2016), long-term services and support for older adults (Travers et al., 2020), informal services for caregivers of community-dwelling older adults (Hong, 2010), and caregivers of people with dementia (Xu et al., 2021).

Andersen and Davison (2007) explicated the factors of this behavioral model as follows. First, individual predisposing characteristics include 'biological imperatives' such as age, sex, as well as social forces determining the individual ability to cope with presented problems such as education, occupation, and ethnicity. Second, individual enabling characteristics refer to regular sources of resources and organizational factors that enable service utilization, as well as means to access or inhibit service utilization such as transportation and travel time (Babitsch et al., 2012). Third, individual need factors can be differentiated from individual perceived needs for using services out of the importance and multitude of the problem to evaluate need. An evaluated need is either a professionally assessed need for using the service or is defined as a social phenomenon tied to the social characteristics of the individual which necessitate the service utilization.

Further, Andersen and Davison (2007) expanded these factors to the contextual level. First, the contextual predisposing factor includes the demographic and social composition of communities, as well as cultural and social norms and political beliefs underlying the

communities to which the individual belongs. Second, contextual enabling factors are the availability, accessibility, and generosity of resource distribution of related services in the communities at the financing, organizational and policy levels. Finally, contextual need factors refer to the physical environment tied to the need for service utilization and the severity of the targeted problems facing the population. Discursive dynamics of the individual factors and contextual factors contribute to the service utilization of an individual.

Figure 1 shows the conceptual framework of these hypotheses based on the Andersen Model of Service Utilization. This study hypothesizes that kinship caregiver service utilization positively impacts the outcomes of caregivers (i.e. service satisfaction, caregiver well-being) attending the Kinship Navigator Program in Washington State. Guided by the Andersen Model of Service Utilization (Andersen, 1995; Andersen & Davison, 2007), kinship caregivers' service use patterns and behaviors are a function of their predisposition, the factors that enable (or inhibit) their service utilization, and the perceived or evaluated need for using specific services. These factors are related to the service utilization of kinship caregivers, which contribute to the outcomes of the program implementation. As shown in previous literature (Blundo & Simon, 2016; Feldman & Fertig, 2013; Littlewood, 2015; Pandey et al., 2019), case management in serving kinship caregivers positively impacts their service utilization and program implementation outcomes (i.e. kinship caregiver well-being).

The secondary administrative and survey data included for analysis in this study pertain to the predisposing factors (e.g., age, gender, race, SNAP status,), enabling factors (e.g., insurance, goal setting, follow-ups, social support network size), and need factors (e.g., caregiving circumstance, kinship caregiver self-rated health, health care needs) in this model. Please note that the chosen variables may vary by the secondary data, together with the literature review, drawn into analysis in the following three respective papers of the dissertation.

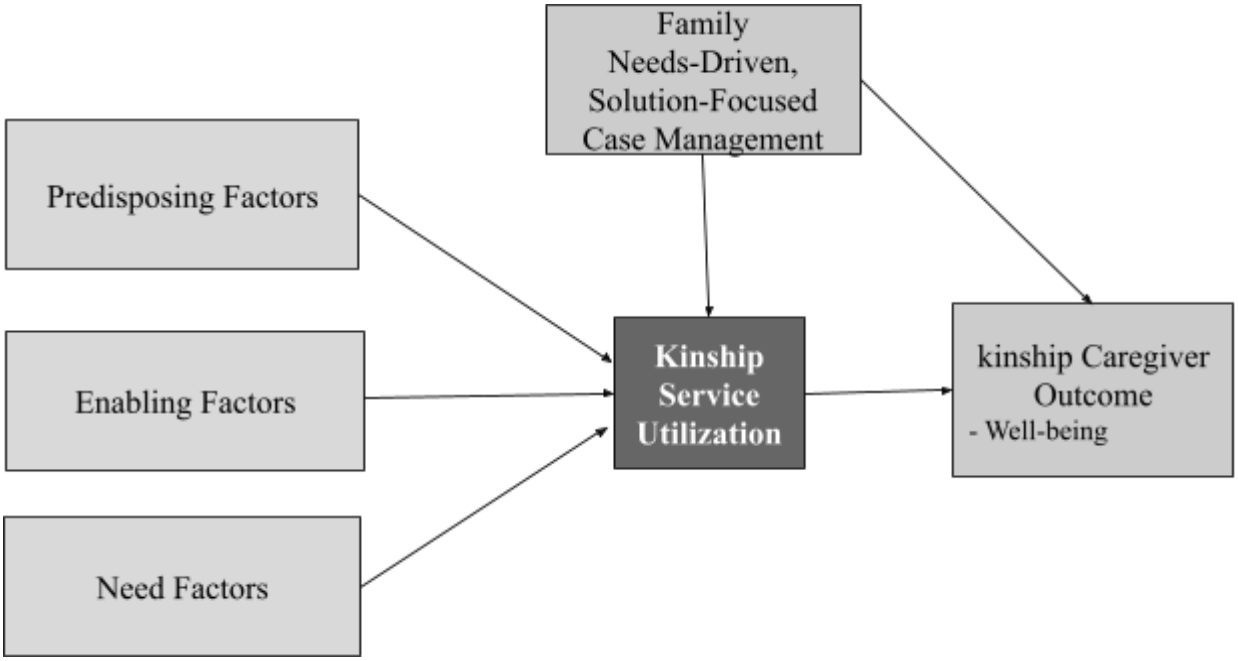

Figure 1. Conceptual Framework for Service Utilization Among Informal Kinship Caregivers

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INTRODUCTION APPENDIX

Appendix 1
The Five-Tiered System of Kinship Care

	Kinship care arrangement	Role of state in care arrangement	Legal rights/reversibility	Resources provided	Services provided	Screening and/or assessment of caregiver prior to placement?	Ongoing review of placement/ caregiving ?
Tier 1	Licensed kinship foster care	Mandated	Custodial rights/ Yes. Juvenile court's emphasis on reunification with the birth parent.	Full foster care board rate.	Services available, though uneven implementation.	Same screening/assessment standards as traditional foster care.	Monthly caseworker visits
	Licensed subsidized guardianship (kinship guardianship, GAP)	Mandated	Custodial & legal rights/ Yes. Birth parent can petition juvenile court.	Guardianship payment (equivalent to foster care).	Not typically, though some jurisdictions offer post-permanency services.	Same screening/assessment standards as traditional foster care.	Annual form completed by caregiver to attest to child's continued residence in the home.
	Kinship adoption	Mandated	Parental rights/No	Adoption subsidy (equivalent to foster care).	Not typically, though some jurisdictions offer post-permanency services.	Some screening/assessment as foster care.	None
	Voluntary placement agreement	Mandated	Custodial rights/ Yes, Child welfare worker can return child following successful completion of case plan or safety plan. Child must be returned home within 6 months or formally placed in foster care, guardianship/adoption.	Full foster care board rate (or equivalent) once approved as a foster parent and/or if the child is federally eligible.	Services available, though uneven implementation.	Same screening/assessment standards as traditional foster care.	Monthly caseworker visits
Tier 2	Unlicensed kinship foster care	Mandated	Custodial rights/ Yes, Juvenile court's emphasis on reunification with the birth parent.	State standard of need—higher than TANF child-only payments but lower than the foster care payments.	Services available, though uneven implementation.	Screening and assessment may be relaxed.	Monthly caseworker visits

	Unlicensed subsidized guardianship (kinship guardianship)	Mandated	Custodial & legal rights/ Yes. Birth parent can petition juvenile court.	State funded option (lower payments than licensed).	Not typically, though some jurisdictions offer post-permanency services.	Yes	Annual form completed by caregiver to attest to child's continued residence in the home.
Tier 3	Legal guardianship (Probate legal guardianship, civil legal guardianship)	Mediated	Custodial & legal rights/ Yes. Birth parent can petition probate court	TANF child-only; TANF family grant if income eligible.	Uneven implementation/ Referral to community agencies/Kinship Navigator programs/Caregiver support groups/National Family Caregiver Support Program.	Some screening & assessment	None
	Private adoption	Mediated	Parental Rights	Social Security benefits; Federal adoption tax credit; TANF child-only; TANF family grant if income eligible.	None, though some states and local jurisdictions operate Kinship Navigator programs/ Caregiver support groups/National Family Caregiver Support Program.	Some screening & assessment	None
Tier 4	Private arrangements (informal kinship care, private kinship care)	None/ Independent	None/ Yes, typically via negotiation/agreement between caregiver and birth parent.	TANF child-only; TANF family grant if income eligible.	None, though some states and local jurisdictions operate Kinship Navigator programs/ Caregiver support groups/National Family Caregiver Support Program.	No	None
Tier 5	Kinship diversion (voluntary care, state-mediated care)	Mediated	None/ Yes, typically via negotiation/agreement between caregiver and birth parent.	TANF child-only; TANF family grant if income eligible.	Referral to community agencies/Kinship Navigator programs/ Caregiver support groups/National Family Caregiver Support Program.	Varies by state	Varies by state, but often none

Note. 1. State-Mandated Care: the state 1) initiates the kinship care arrangement, 2) imposes mandated responsibilities on kin caregivers and parents, and 3) extends certain rights to the caregiver. State-Mediated Care: mediated arrangements pursued by a relative or by state

agents. Recognized by the state through the decision of a probate or civil court judge. State-Independent Care: care arrangements without child welfare system involvement.

2. Reprinted from "*Grandmothering While Black A Twenty-First-Century Story of Love, Coercion, and Survival*," by Pittman, L. L., 2023, p. 64, Berkeley, California/United States: University of California Press.

Appendix 2
IRB Approval of the Present Study

UNIVERSITY of WASHINGTON
HUMAN SUBJECTS DIVISION

NOT HUMAN SUBJECTS

February 15, 2024

Dear Hung-Peng Lin:

On 2/15/2024 the University of Washington Human Subjects Division (HSD) reviewed the following application:

Type of Review:	Initial Study
Title of Study:	Informal Kinship Caregivers Attending the Kinship Navigator Program in Washington State: Patterns of Unmet Needs, Street-Level Implementation of Service Delivery, and Caregiver Well-Being
Investigator:	Hung-Peng Lin
IRB ID:	STUDY00019802
Funding:	None
IND, IDE, or HDE:	None

HSD determined that the proposed activity does not involve human subjects, as defined by federal and state regulations. Therefore, review and approval by the University of Washington IRB is not required.

This determination applies only to the activities described in this application. **Depending on the nature of your study, you may need to obtain other approvals or permissions to conduct your research. For example, you might need to apply for access to data or specimens (e.g., to obtain UW student data). Or, you might need to obtain permission from facilities managers to conduct activities in the facilities (e.g., Seattle School District; the Harborview Emergency Department).**

HSD does not make determinations on behalf of other institutions. If other institutions are involved in the research, they may need to make their own determination or they may decide to be guided by our determination.

If you need to make changes in the future that may affect this determination or are not sure, contact us or submit a new request for a determination. You can create a modification by clicking Create Modification within the study.

We wish you great success.

Sincerely,

Stacey Gardner CIP
(she/her)
IRB Administrator, Committee J
Phone: (206) 685-0330
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PAPER ONE
PATTERNS OF CAREGIVING CHALLENGES IN INFORMAL KINSHIP PLACEMENT, SOCIODEMOGRAPHIC DETERMINANT, AND ENGAGEMENT IN KINSHIP NAVIGATOR PROGRAMS: A LATENT CLASS ANALYSIS

Abstract

Informal kinship caregivers constitute the majority of caregivers for maltreated children who cannot safely remain with their biological parents, particularly in grandparent-headed households. However, informal kinship caregivers receive significantly less support and services compared to their formal counterparts, despite facing similar challenges and service needs. The present study addressed the lack of empirical research concerning informal kinship care, which is necessary to inform evidence-based practice. Guided by the Andersen Model of Service Utilization, this study uses latent class analysis (LCA) to identify patterns of reported caregiving challenges in informal kinship placements (N = 689). The LCA model fitting results reveal one distinct pattern: a 3-class model characterized by the Financial Challenge Group (48.04%), the Intergenerational Family Dynamics Group (32.05%), and the Child's Behavioral & Emotional Health Group (19.91%). Patterns of caregivers' challenges differed by age, race, and sex. Finally, multinomial regression analyses suggest that engagement in Kinship Navigator Programs (KNPs) significantly attenuates sex disparities in the Financial Challenge Group and racial and sex disparities in the Intergenerational Family Dynamics Group. Overall, the research findings provide points of intervention for targeting subpopulations of informal kinship caregivers in need of prevention-related social services, ultimately promoting a kin-first culture.

Keywords: informal kinship caregiver; informal kinship placement; kinship navigator programs; challenges of kinship caregiving; latent class analysis; Family First Prevention Services Act (FFPSA)

1. Introduction

1.1. Informal kinship placement

Informal kinship caregivers comprise the majority of caregivers of maltreated children who cannot stay safe with their biological parents, especially grandparent-headed households (U.S. Census Bureau, 2023). An estimated 2.2 - 2.5 million children were living with kinship caregivers in 2022, representing roughly 3% of the child population in the United States (U.S. Census Bureau, 2023). Grandparents account for approximately 59 to 63% of the household heads in these kinship, non-foster care arrangements (GAO, 2023; Radel et al., 2016). Recent US census data shows that an estimated 7.7 million grandparents lived with their grandchildren under 18. Among them, 2.5 million were responsible for their grandchildren, 39% of whom do not have the presence of a parent (U.S. Census Bureau, 2023). Another estimate from 2013 indicated that nearly one-quarter (22.3%) of children in nonparental care lived with other relatives and fictive kin (e.g., aunts, uncles, adult siblings, or family friends) in a nationally representative survey of households with children (Pittman, 2023).

The majority of kinship care arrangements occur outside the foster care system and the purview of child welfare agencies. Primary caregivers in these living arrangements are not licensed foster parents and operate without the oversight of child welfare systems. Even within formal kinship caregivers experiencing system oversight, only half are licensed (Annie E. Casey Foundation, 2013), whereas unlicensed kinship caregivers receive benefits higher than non-parental child-only TANF but lower than foster care subsidy (Berrick & Hernandez, 2016). In actuality, informal kinship caregivers may avoid formal interventions or other forms of intrusion from systems of child welfare (e.g., being supervised by child welfare agencies, having to follow child welfare regulations), juvenile probation, and other government entities to prevent children from being placed in a non-relative home (Nelson et al., 2010; Smith, 2018). They may refrain from becoming formal kinship caregivers through legal custody

arrangements due to complexities, fear, and stress surrounding court procedures, state intervention, and child welfare oversight, especially in communities of color (Day et al., 2023; Denby & LSW, 2015; Goering & Lopez, 2024; Pittman, 2023; Washington State Department of Social and Health Services, n.d.). For example, courts, potentially acting as triggers of historical trauma, can deter American Indian and Alaska Native (AI/AN) kinship caregivers from pursuing formal kinship arrangements (Day et al., 2023). Informal kinship caregivers of unaccompanied immigrant children may be hesitant to proactively seek formal support due to mistrust or fear of government involvement (Goering & Lopez, 2024).

Despite sharing similar challenges and service needs, informal kinship caregivers receive significantly less support and services compared to their formal counterparts (Denby & LSW, 2015; Pittman, 2023). The disparity persists in benefits and service opportunities between these two groups (Smith, 2018). However, kinship navigator programs (KNPs) can address this imbalance by catering to both formal, licensed kinship caregivers and informal, unlicensed caregivers. Kinship navigators help families negotiate complicated eligibility criteria, service gaps, and access barriers that exacerbate racial and class inequities.

To address the lack of empirical research evidence concerning informal kinship care (Berrick & Hernandez, 2016) and the significance of prevention-related needs within informal kinship care as a strategy for preventing formal foster care placements (Brown et al., 2023), this study explores the patterns of caregiving challenges in informal kinship placements, the multilevel determinants of specific patterns, and the role of KNP engagement in addressing significant determinants within these challenge patterns.

1.2 Informal Kinship Caregiving Challenges

Kinship caregivers may unexpectedly take on the role of caring for relative children, and the associated responsibilities can lead to various hardships (GAO, 2023). For example, informal kinship care often excludes caregivers from receiving monthly foster care

maintenance payments in most states, which are typically available to licensed formal kinship caregivers, as well as timely parenting support from formal service systems (Child Welfare Information Gateway, 2022; Liao & White, 2014). Some qualitative studies explored parenting challenges among informal kinship caregivers (Hong, 2010; Koh et al., 2022). Both indicated that financial hardship was the major issue. Informal kinship caregivers also face challenges related to the medical, behavioral, and mental health needs of the children in their care. Other difficulties included managing child care, navigating service systems, and handling complex relationships with the children's birth parents.

2. Kinship navigator programs

The vast majority of families in informal kinship care are primarily serviced through kinship navigator programs. These programs are designed to remove barriers to and facilitate the utilization of services needed by kinship care families to improve children's outcomes, address caregiver needs, and reduce the need for substantial involvement in child welfare systems (Denby & LSW, 2015).

According to federal law, a Kinship Navigator Program is defined as ‘a program to assist kinship caregivers in learning about, finding, and using existing supportive programs and services to meet the needs of the children they are raising and their own needs, and to promote effective partnerships among public and private agencies to ensure kinship caregiver families are served (42 U.S.C § 627 (a)(1)). Support services may involve a variety of offerings, including financial assistance (e.g., TANF, SNAP, Social Security), educational opportunities, training sessions, support groups, referrals to various social, behavioral, or health services, and aid in navigating government and other forms of assistance, whether financial or otherwise (Stein et al., 2014). Despite present federally recognized evidence on

utilization's importance for formal kinship caregivers, gaps remain regarding service needs and utilization impacting informal caregivers attending kinship navigator programs.

2.1. Service utilization of kinship caregivers

Although the service needs of kinship caregivers and children were high, the utilization of services was low (Coleman & Wu, 2016). Considering the minimal utilization of support and services alongside the high-level of needs within informal kinship care, it's crucial for navigator programs to actively generate demand to promote uptake and utilization (Gleeson, 2020). A systematic review (Coleman & Wu, 2016) examining predictors of kinship caregiver's service utilization, found that important predictors included: child behavioral problems, caregiver mental health, resource availability, provider characteristics, caregiver perceived need, and social support. Besides, Coleman & Wu (Coleman & Wu, 2016) found inconsistent findings regarding other predictors of service utilization of kinship caregivers, such as involvement in the child welfare system, past experience with social and mental health services (e.g. mistrust in these systems), fear of child removal, personal resources, and accessibility of resources.

2.2. Service need by contextual determinants on the individual and community levels

2.2.1 Race/Ethnicity determinant

Recent studies have examined the unique service needs and utilization patterns of subgroups of ethnic kinship caregivers. For example, Latinx kinship caregivers reported significantly higher needs for medical care and unique caregiving circumstances of children's biological parents being deported as the reason leading to kinship care, having more underaged relative children in care, and lower annual household income than non-Latinx kinship caregivers (Gómez et al., 2023). Day and colleagues (2023) found that the top cited challenges facing AI/AN kinship caregivers in tribal communities across Washington State were obtaining housing, transportation, and working with their kinship children's school.

Pittman's ethnographic study (Osborne et al., 2021)] found that, in African American communities of grandmothers, nonpunitive services (i.e. those aside from police and child welfare systems) to address grandchildren's needs were generally unavailable. However, African American grandmothers providing informal kinship care typically need to navigate through health, educational, social service, and legal systems within their extended social networks (O'Brien, 2012).

2.2.2. Socioeconomic determinant

Moreover, when considering sociodemographic characteristics (e.g., income level, region) collectively, kinship caregivers' unmet needs and challenges differ. For instance, Schatter and colleagues (Schlatter et al., 2023) found that, overall, financial challenges and assistance were the most frequently cited, regardless of the caregiver's residential region. Additionally, kinship caregivers' perceived unmet needs may vary based on their annual income level (Schlatter et al., 2023). Those with an annual income below $20,000 (i.e., the poverty household cutoff) reported challenges related to finances, housing, and the physical health of the caregiver. In contrast, those with an annual income above $20,000 (i.e., non-impoverished kinship families) identified emotional health, caregivers' emotional well-being, respite care, delaying retirement, and both the caregiver and child's relationship with parents as their unmet needs (Schlatter et al., 2023).

2.2.3 Residence region (rurality or urbanity) determinant

Regardless of the residence region (i.e., more rural or urban) of kinship caregivers, financial support was the most frequently cited service need (Schlatter et al., 2023). Specifically, those from more rural regions expressed challenges related to finance, the emotional health of the child, and recreational activities. In contrast, those from an urban region reported more housing challenges and a need for transportation to non-urban areas, as well as child care (Schlatter et al., 2023). Finally, kinship caregivers also identified financial

assistance as the top need for those ineligible for support from the formal child welfare system (i.e., caring for reasons such as parental financial circumstances, substance use, incarceration, behavioral/mental health of the bio-parent, and homelessness) (Schlatter et al., 2023). Conversely, those caring for relative children due to child abuse or neglect reported more challenges related to the child's emotional health and the need for child behavior intervention (Schlatter et al., 2023).

3. Theoretical Framework

3.1. Adapted Andersen Model of Service Utilization

The present study aims to investigate determinants of caregiving challenges in informal kinship placement, as well as the role of KNP engagement in such connections. The Andersen Model of Service Utilization is a multilevel model that includes both individual and contextual determinants of service utilization (i.e. KNP engagement). This analytic framework has been widely applied to areas of service utilization by older adults or caregivers with an array of service needs. For example, supportive services for kinship caregivers (Coleman & Wu, 2016), long-term services and support for older adults (Travers et al., 2020), and informal services for caregivers of community-dwelling older adults (Hong, 2010).

Andersen and Davison detailed a behavioral model encompassing factors on the individual level and contextual level (Andersen et al., 2007). At the individual level, predisposing characteristics include age, sex, education, occupation, and race/ethnicity, influencing the ability to manage problems (i.e. caregiving challenges). Enabling characteristics involve resources and organizational factors affecting service utilization, such as transportation and travel time (Babitsch et al., 2012). Need factors are perceived or evaluated needs for service use, either professionally assessed or socially defined. They

(Andersen et al., 2007) also expanded these factors to a contextual level, considering community demographics, social norms, resource distribution, and environmental needs. The interplay between individual and contextual factors influences the behavior of service utilization.

4. Research Aim

Despite the emergence of recent literature examining the importance of unmet needs and service utilization among kinship caregivers (either formal kinship caregivers or informal and formal mixed kinship caregivers, or subpopulation of kinship caregivers) and its outcomes (Day et al., 2023; Day et al., 2024; Gómez et al., 2023; Liao & White, 2014; Schmidt & Treinen, 2017), no study has systematically investigated the distinctive patterns of caregiving challenges in informal kinship placement, their associated contextual determinants, and the role of such associations in this specific population. Therefore, the present study addresses the following three aims:

Aim 1: Identify the heterogeneity of reported caregiving challenge in informal kinship placement in Washington State through latent class modeling.

Aim 2: Examine the association between distinct subgroups (latent classes) of the challenge model and contextual determinants on the individual, community, and intersectional levels.

Aim 3: Investigate the role of KNP engagement on the associations between multilevel determinants and specific patterns of challenges in informal kinship caregivers.

5. Method

5.1. Data and procedures

An environmental scan and self-administered survey was distributed statewide to kinship caregivers via mass mailings in Washington State in 2019 and 2020, identified by multiple

governmental support organizations including the Department of Children, Youth and Families (DCYF), the Aging and Long-Term Support Administration (ALTSA), and the Economic Services Administration (ESA) (Day et al., 2024). This survey, available in English and Spanish, was designed based on previous research in collaboration with community input within the Washington State Kinship Care Oversight Committee in a community engaged research approach (CEnR) (Day et al., 2024). The survey covered items of sociodemographic characteristics of children and kinship caregivers, reasons for kinship care, length of stay, types of unmet needs and challenges, sources of support, and socioeconomic resources. Subjects gave consent at the survey's outset. Respondents received $15 as compensation for completing the survey and were entered into a lottery for one of twenty $50 gift cards (Schlatter et al., 2023). The present study is a secondary analysis of de-identified data. This study received Institutional Review Board (IRB) approval from the University of Washington Human Subjects Division (STUDY00019802).

5.2. Inclusion criteria

The present study focused on a subsample of informal kinship caregivers (n = 689) in Washington State. As part of the survey, caregiver participants were asked whether one of nine informal care arrangements applied to their situation (e.g. parental consent agreement, family decision), using a “yes” (=1) or “no” (=0) response. Those that answered “yes” to one or more of the informal arrangements were included in the subsample. The exclusion criteria were: 1) kinship caregivers who did not answer “yes” to the same informal arrangement variable; and 2) kinship caregivers who gave open-ended responses pertaining to contacting 'child welfare,' 'child protection,' 'CPS worker,' 'placement,' '(child) removal,' and 'system involvement' (including legal and child welfare systems). A final 93.61% (n = 689) of the complete sample size (N = 736) was included, consistent with the disproportion of the

majority service population being informal kinship caregivers involved in the utilization of kinship navigator programs in Washington State.

5.3. Measures

Kinship Caregiving Challenge in informal kinship placement. Categorical items of the survey variable (i.e. latent factors of informal kinship caregiving challenge) were used to inform latent class membership. Specifically, the item informal kinship caregiving challenge includes 14 categories (1=yes, 0=no) of (1) housing, (2) legal problems, (3) caregiver own emotional health, (4) child-care arrangements, (5) caregiver own physical health, (6) child's emotional health, (7) caregiver own relationship with the child's birth parents, (8) lack of access to respite care services, (9) child's behavior, (10) finances, (11) delayed retirement, (12) paying for child's medical care, (13) child's relationship with own parents, and (14) child's education.

Covariates. At Level 1 (individual level), the informal kinship caregiver level, several predictors of 1 latent class memberships were considered: age (continuous variable), race/ethnicity (binary, BIPOC or White), Supplemental Security Income recipient (binary; 1=yes, 0=no), household income level (ordinal variable, Less than $5,000, $5,000 to $9,999, $10,000 to $19,999, $20,000 to $29,999, $30,000 to $39,999, $40,000 to $49,999, $50,000 to $59,999, $60,000 to $69,999, and $70,000+), and informal kinship caregiver's current engagement (binary; 1=yes, 0=no) in kinship navigator programs in Washington State. At Level 2 (community level), one predictor was considered. That is, the rurality/urbanity (categorical) in which the residence of the informal kinship placement was situated based on the classification of the Washington State Department of Health (U.S. Census Bureau, 2023). The interaction term of significant multilevel determinants and KNP engagement was used to address research Aim 3.

5.4. Analytic Strategy

5.4.1. Performing Latent Class Analysis

To identify challenge patterns (i.e. subgroups of participants) in informal kinship placement (Aim 1), latent class analysis was performed on survey responses on the variable of informal kinship caregiving challenge. Latent Class Analysis (LCA) is a person-centered analytic approach that uses observed categorical variables to identify unobserved (i.e., latent) homogeneous subgroups (or class memberships) comprising similar individuals (Lin, 2014). By using LCA, informal kinship caregivers who reported similar patterns in the chosen latent variable will be categorized into distinct classes based on estimated posterior membership probabilities. LCA estimates the categorical latent variable and the probabilities of assignment for the sample to each class/pattern categorization of the categorical variable model (Muthén & Muthén, 2012). Models will be evaluated in a stepwise manner, with successive models introducing an additional class at a time (e.g., 2 classes to 3 classes, 3 classes to 4 classes), until the fit statistics indicate the identification of the optimal model.

A recommended approach to selecting a final model with the optimal number of classes (i.e., subgroups) involves (a) comparing multiple relative fit statistics, including the Bayesian Information Criterion (BIC); and (b) the theoretical interpretability of the selected solution (Washington State Department of Social and Health Services, n.d.). Model-fit statistics will be evaluated to assess the relative fit of the candidate models (Muthén, 2004). To assess model fit (i.e. selection of an appropriate number of classes [i.e., response patterns]), relative fit estimates of Akaike Information Criterion (AIC), Bayesian Information Criterion (BIC), the chi-square test, likelihood ratio goodness of fit, the likelihood ratio test (i.e., Lo-Mendell-Rubin adjusted likelihood ratio test) can be compared to select an optimal model. A lower AIC, lower BIC, lower chi-square test, or a higher likelihood ratio goodness of fit values indicates better fit (Finch & French, 2015). The Lo-Mendell-Rubin adjusted likelihood

ratio test compares the fit of a model with k classes to a model with k−1 classes with a *p* value, indicating if one model is statistically better than another (Weller et al., 2020).

In addition to these relative fit estimates, researchers are encouraged to examine and report the entropy value of the LCA model as a diagnostic criteria. Entropy value indicates how accurately a given LCA model defines and classifies observations into the latent classes (Weller et al., 2020). Its value ranges from 0 to 1, with higher values being better. An entropy value of 0.6 is the minimum acceptable value and 0.8 or higher is ideal. There is no agreed-upon cutoff criterion for entropy. Entropy can't be used for model determination. However, the highest entropy value does not indicate the best-fitting model. Instead, a small entropy value is informative of poor class separation (Sinha et al., 2021; Weller et al., 2020). Finally, class (subtype) proportions and conditional item probabilities were examined to aid in class interpretation (Finch & French, 2015). We used R to conduct LCA analysis (i.e., poLCA package) and regression analyses on complete data included in the model estimation (n = 634).

5.4.2. Fitting a LCA model with one covariate (i.e. contextual determinant) and more than one covariate (i.e. determinant & KNP engagement)

To examine whether the composition of the classes (i.e. subgroups) of the challenge patterns varied by contextual determinants (i.e. individual- and community-level factors) (Aim 2), a multinomial logistic regression will be performed. Class membership (dependent variable) was regressed on contextual determinants (independent variables), with class membership 1 used as the reference group (Finch & French, 2015).

Guided by the Andersen Model of Service Utilization, individual-level covariates included the main caregiver's age, sex, race/ethnicity, household income, and present participation in KNP. Community-level covariate includes residence rurality/urbanity. These contextual determinants were included to examine if they were associated with class

membership(s) of the challenge patterns. In addition, the LCA model was investigated with the interaction term of significant individual-level covariates and community-level covariates with KNP engagement (Aim 3). Similarly, model fitting of the interaction models were conducted by comparing the chi-square test, AIC, BIC values between the LCA model without covariate and the model with covariate. The model with lower values of the AIC and BIC implies that the model is optimal (Finch & French, 2015).

6. Results

6.1. Descriptive statistics

Table 1.1 summarizes the characteristics of the informal kinship caregiver sample in Washington State (N = 689) and their survey responses. Respondents were generally older (average age 63; 56.23% over age 65), female (88.10%), Non-Hispanic White (79.10%), living under an annual household income of $39,999 (57.46%) in an urban county (54.28%), and had an average of two underage children in the household, and most were not engaged in a kinship navigator program (73.44%).

The majority of children entered informal kinship placement due to parental substance use (65.77%), followed by incident of child abuse/neglect (26.03%), and birth parent incarceration (21.61%). Many were the grandchildren of their informal kinship caregivers (72.28%). When caring for these children, more than one third of informal kinship caregivers reported challenges with finances (38.32%); the child's emotional health (32.22%). More than one fourth reported challenges with the child's behavior (26.85%). More than one fifth reported challenges in the child's relationship with parents (24.38%) as well as challenges in the caregiver's own relationship with the child's birth parents (20.90%). In addition, these informal kinship caregivers received support primarily from spouse or partner (41.64%), private agency and/or community organization (38.49%), and community health clinic (35.80%). Finally, they utilized more socioeconomic resources such as Non-Needy Relative

TANF grant (“child-only grant”) (57.89%), State medical assistance for your child(ren) (53.94%), wages or salary (41.63%), and social security (36.28%).

Table 1.1.
Sample Characteristics of Informal Kinship Caregivers in Washington State (N = 689)

Variable		***Mean (SD)***	***n***	**%**	***N* (Missing %)**
Sociodemographics					
Caregiver characteristics					
Age		63 (11.42)			
	< 65 years 65 years and older		370 288	56.23 43.77	31 (4.50)
Sex	Female Male Prefer not to answer		607 61 1	88.10 8.85 0.15	20 (2.29)
Race	Non-Hispanic White BIPOC		545 144	79.10 20.90	0 (0)
Household annual income level	Less than $5,000 $5,000 to $9,999 $10,000 to $19,999 $20,000 to $29,999 $30,000 to $39,999 $40,000 to $49,999 $50,000 to $59,999 $60,000 to $69,999 $70,000+		63 47 106 102 78 62 47 42 111	9.14 6.82 15.38 14.80 11.32 9.00 6.82 6.10 16.11	41 (5.95)
Residence Rurality/Urbanity	Rural Urban		261 374	37.88 54.28	54 (7.84)
Caregiving attribute					
Number of children in the household		2 (1.2)			

Relationship with the child who has been in care the longest	Sibling Grandparent Cousin Aunt/Uncle Niece/Nephew Adoptive Parent Family Friend (Godparent, neighbor, etc) Other		7 498 13 81 16 9 7 57	1.02 72.28 1.89 11.76 2.32 1.31 1.02 8.27	1 (0.15)
Living arrangements in informal kinship placement					
Adverse childhood experience of children in care	Age of birth parent Birth parental financial circumstance Birth parental substance use Birth parent left community for work/school Birth parent incarceration Incident of child abuse/neglect Birth parental behavioral health Parental physical health Death of parent/guardian Birth parent deportation Birth parent military service Birth parental homelessness Child injury		20 62 417 3 137 165 89 10 33 7 0 79 2	3.15 9.78 65.77 0.47 21.61 26.03 14.04 1.58 5.21 1.10 0 12.46 0.32	
Informal kinship caregiving challenge	Housing Legal problems Caregiver own emotional health Child-care arrangements Caregiver own physical health Child's emotional health Caregiver own relationship with the child's birth parents Lack of access to respite care services Child's behavior Finances Delayed retirement Paying for child's medical care Child's relationship with own parents Child's education		93 48 104 63 84 222 144 127 185 264 86 6 168 86	13.5 6.97 15.09 9.14 12.19 32.22 20.90 18.43 26.85 38.32 12.48 0.87 24.38 12.48	
Social support	Spouse or partner Friends Support groups Religious organizations School Family support center Private agency and/or community organization Public social services (state, county, city, or tribal) Behavioral health services Community health clinic Other relatives		264 150 35 75 152 36 53 244 91 45 227	41.64 23.66 5.52 11.83 23.97 5.68 8.36 38.49 14.35 7.10 35.80	
Socioeconomic resource	Wages or salary Social security Social Security Disability (SSI) Payments Pension Child support Non-Needy Relative TANF grant ("child-only grant") Monthly foster care reimbursement		264 230 160 97 44 367 11	41.64 36.28 25.24 15.30 6.94 57.89 1.74	

	Adoption support subsidy Relative Guardianship Assistance Program subsidy (RGAP) TANF grant for yourself and children Food Stamps State medical assistance for your child(ren) Child Care Assistance (Working Connections Child Care) Support services provided by the Division of Children and Family Services (DCYF) Tribal per capita payment Tribal treaty income		19 3 89 197 342 52 17 12 1	3.00 0.47 14.04 31.07 53.94 8.20 2.68 1.89 0.16	
Engagement in Kinship Navigator Programs	Yes No		137 506	19.88 73.44	46 (6.68)

6.2. Patterns of Informal Kinship Caregiving Challenges in Informal Kinship Placement (Aim 1)

6.2.1. A 3-Class Model .

Based on the model fitting results, the BIC and entropy values suggest the three-class model of informal kinship caregiving challenge (See Appendix Table 1). Figure 1.1 presents the graphic representation of this model. The X-axis represents the indicators of the latent classes/groups of informal kinship caregiving challenges, while the Y-axis denotes the item-response probability of class membership for each indicator. A probability approaching 1 indicates a higher likelihood of class membership being associated with that specific challenge.

Three distinct patterns of informal kinship caregiving challenges were identified based on responses to 14 indicators (See Appendix Table 2): *Financial Challenge* (Group 1), *Child Behavioral & Emotional Health* (Group 2), and *Intergenerational Family Dynamics* (Group 3). First, the majority of caregivers (48.04%) fell into the *Financial Challenge* group, characterized by a higher probability of finance, housing, and lack of access to respite care challenges. Second, a slightly smaller proportion (32.05%) was in the *Intergenerational Family Dynamics* group, marked by challenges in child relationships with their own parents,

child's emotional health, and caregiver's own relationship with child birth parents. Finally, the smallest group (19.91%) belonged to the *Child Behavioral & Emotional Health* group, which faced greater challenges in child's behavior, child emotional health, and lack of access to respite care services. Conversely, the predicted probability of paying for a child's medical care was zero across three patterns, while 53.94% of the study sample utilized state medical assistance for the children.

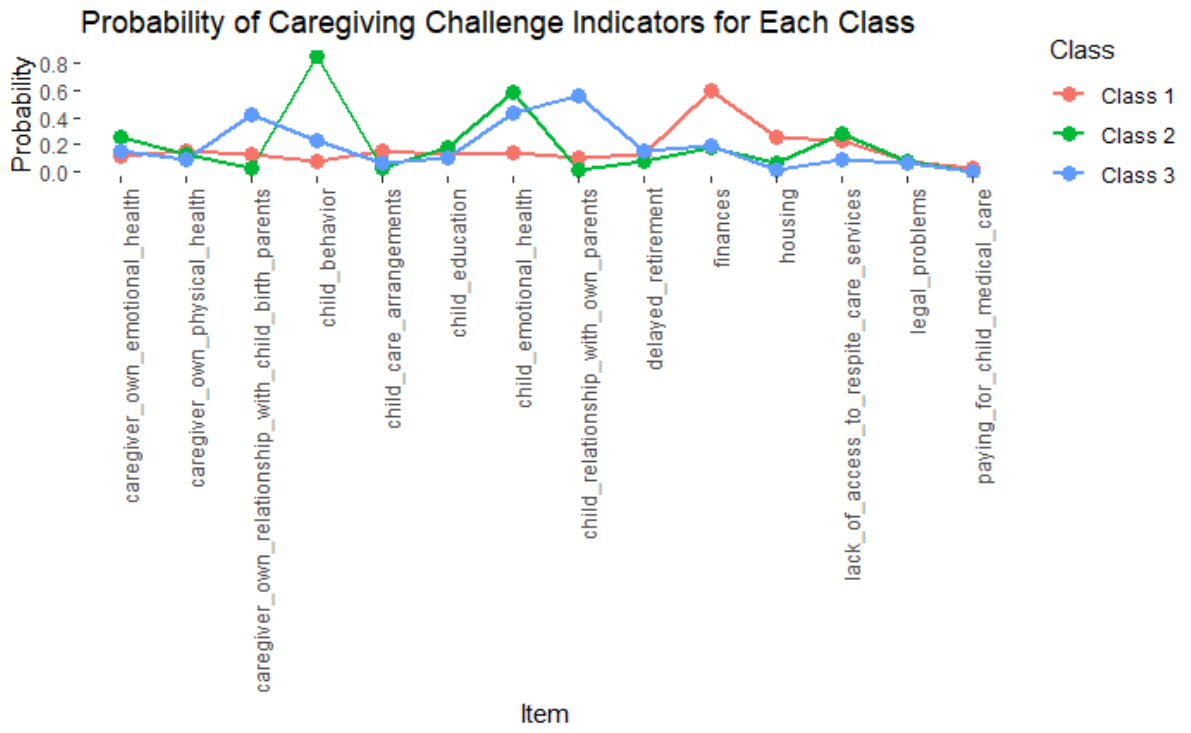

Figure 1.1. Latent Classes of Informal Kinship Caregiving Challenges

Note. N = 634. Figure illustrates the relative percentage in characteristics of the three classes based on responses to the 14 indicators of informal kinship caregiving challenges.

6.2.2. Multilevel Determinants Associated with Latent Classes (Aim 2).

6.2.2.1. Class Membership of the Informal Kinship Caregiving Challenge Model Associated with Age, Sex, Race.

Sociodemographic predictors of the three patterns (i.e., latent classes) of Informal Kinship Caregiving Challenging are shown in Appendix Table 3. As shown, informal kinship caregivers with varying age, sex, and race may be associated with different class memberships of informal kinship caregiving challenge model. Informal kinship caregivers' income, and urban/rural residence did not predict their probability of assignment to specific class membership of the caregiving challenge model.

As observed in Appendix Table 3, the AIC and BIC values of the 3-class model with respective covariates are lower than the model without a covariate. Wald tests were used to compare the models with and without covariates, which also supported that models with covariates as having better fit. More specifically, as the age of the informal kinship caregivers increased, the likelihood of being in the *Financial Challenge* (p <.01) and *Intergenerational Family Dynamics* (p < .001) patterns (i.e., classes) increased compared to the *Child's Behavioral & Emotional Health* pattern. The sex of informal kinship caregivers also mattered. In comparison to male informal kinship caregivers, females were less likely to be in the subgroups characterized by *Financial Challenge* (p < .05) and *Intergenerational Family Dynamics* (p < .05) compared to the *Child's Behavioral & Emotional Health*. Moreover, as compared to White informal kinship caregivers, BIPOC ones are less likely to be involved in the subgroup of *Intergenerational Family Dynamics* (p < .0001) compared to the *Child's Behavioral & Emotional Health*.

6.2.3. KNP Engagement Attenuated the Associations between Multilevel Determinant and Class Membership of the 3-Class Caregiving Model (Aim 3).

Findings from the multinomial regression analyses supported Aim 3. The different class memberships of the 3-class model did not differ significantly by their engagement in kinship navigator programs (KNP) (See Table 2). However, when considering the interaction between sociodemographic covariates and KNP engagement, the likelihood of belonging to specific class memberships varied (See Table 3). These sociodemographic determinants included age, race, and sex. That is, KNP engagement modified the effect of these covariates on specific patterns of caregiving challenges. Attending kinship navigator programs in rural or urban residence areas did not differentiate the patterns of caregiving challenges reported by informal kinship caregivers.

More specifically, in the multivariate model including covariates of age and KNP engagement, an increase in the age of informal kinship caregivers was associated with a decreased the likelihood of being in the *Financial Challenge* Group with reference to *Child's Behavioral & Emotional Health* Group($p < .05$). Additionally, in the multivariate regression model including race and KNP engagement, Black, Indigenous, and People of Color (BIPOC) informal kinship caregivers, or those covered by KNPs, were more likely to be in the *Financial Challenge* Group compared to the *Child's Behavioral & Emotional Health* Group ($p < .0001$). BIPOC informal kinship caregivers or those involved in KNPs were also more likely to be in the *Intergenerational Family Dynamics* Group compared to the *Child's Behavioral & Emotional Health* Group ($p < .0001$). Conversely, BIPOC informal kinship caregivers engaged in KNPs were less likely to be in the *Intergenerational Family Dynamics* Group compared to the *Child's Behavioral & Emotional Health* Group ($p < .05$).

Regarding sex, in the multivariate model including sex and KNP engagement, being a female informal kinship caregiver or participating in KNPs increased the likelihood of

assignment to the *Financial Challenge* Group ($p < .01$; $p < .0001$). However, this association was attenuated if female informal kinship caregivers engaged in KNPs. In the same model, simply engaging in KNPs was positively associated with being in the *Intergenerational Family Dynamics* Group compared to the *Child's Behavioral & Emotional Health* Group ($p < .0001$). This pattern was reversed if female informal kinship caregivers attended KNPs ($p < .0001$).

Table 1.2.
Engagement in Kinship Navigator Outcome by Class Membership

	Engaging in KNP	
Latent class	*OR* [95% CI]	*P*
Child's Health & Care (reference) Financial Challenge	1.09 [0.59 - 2.01]	0.19
Child's Health & Care (reference) Intergenerational Family Dynamics	1.86 [0.96 - 3.57]	0.68

Note. *N* = 634. *SE* = standard error; *OR* = odds ratio; CI = confidence interval.

Table 1.3.
Multinomial Logistic Regression Results: Factors Predicting Class Membership of 3-Class LCA Model of Kinship Caregiving Challenge in Informal Kinship Caregivers

Latent Class Membership	**Covariates**	**AIC**	**BIC**	**Logit**	***SE***	***p***	OR	**[95% CI]**
Child's Behavioral & Emotional Health(reference) Financial Challenge	Age KNP(Yes) Age*KNP	7582.56	1647.38	-0.03 -0.41 0.00	0.01 1.85 0.03	0.02* 0.83 0.91	0.97 0.67 1.00	[0.95,1.00] [0.00,1.67] [0.95,1.06]
Child's Behavioral & Emotional Health (reference) Intergenerational Family Dynamics	Age KNP Age*KNP	7582.56	1647.38	0.01 -0.70 0.01	0.02 2.82 0.04	0.51 0.80 0.89	1.01 0.50 1.01	[0.98,1.04] [0.00,4.31] [0.92,1.10]
Child's Behavioral & Emotional Health (reference) Financial Challenge	Urban KNP Urban*KNP	7266.01	7499.75	-0.21 0.12 0.20	0.30 0.46 0.60	0.49 0.79 0.74	0.81 1.13 1.22	[0.45,1.46] [0.47,2.72] [0.37,4.02]
Child's Behavioral & Emotional Health (reference)	Urban KNP Urban*KNP	7266.01	7499.75	0.22 0.28 -0.53	0.34 0.55 0.72	0.51 0.61 0.46	1.25 1.32 0.59	[0.64,2.47] [0.45,3.87] [0.14,2.43]

Intergenerational Family Dynamics								
Child's Behavioral & Emotional Health (reference) Financial Challenge	Race KNP Race*KNP	7781.88	8018.42	1.32 2.08 -0.21	0.20 0.32 0.38	0**** 0**** 0.58	3.770 7.978 0.809	[2.50,5.68] [4.21,15.13] [0.38,1.72]
Child's Behavioral & Emotional Health (reference) Intergenerational Family Dynamics	Race KNP Race*KNP	7781.88	8018.42	1.31 2.47 -0.97	0.20 0.32 0.38	0**** 0**** 0.011*	3.73 11.82 0.38	[2.48,5.62] [6.07,23.00] [0.18,0.81]
Child's Behavioral & Emotional Health (reference) Financial Challenge	Female (Male as reference) KNP Female*KNP	7631.73	7854.88	1.76 13.43 -14.00	0.70 0.53 0.55	0.01** 0**** 0****	5.83 1.68 0	[1.50,22.99] [0.22,2.06] [0,0]
Child's Behavioral & Emotional Health (reference) Intergenerational Family Dynamics	Female (Male as reference) KNP Female*KNP	7631.73	7854.88	0.70 12.06 -12.66	0.41 0.52 0.54	0.09 0**** 0****	2.01 1.73 0	[0.91,4.47] [0.58,5.13] [0,0]

Note. N = 634. SE = standard error; OR = odds ratio; CI = confidence interval.
*p ≤ .05, **p ≤ .01, ***p ≤ .001; ****p ≤ .0001

7. Discussion

The present study highlights the varied and complex nature of caregiving challenges faced by informal kinship caregivers. In general, the chances of caregivers reporting challenges were generally low, but certain major challenges were noticeable in the three different patterns of challenges. Further, the specific associations between patterns of caregiving challenges and intersectional factors with KNP deepens our understanding of the effect of KNP on mitigating specific challenge patterns. This study identified three distinct patterns of leading caregiving challenge in informal kinship caregivers include *Financial Challenge*, *Child Behavioral and Emotional Health*, and *Intergenerational Family Dynamics*. Significant differences in age, sex, race, and intersectional factors with KNP engagement emerged among these classes/subgroups. The observed differences underscore the need for targeted support and interventions for each distinct class/group of challenges among informal kinship caregivers.

Informal kinship caregivers may face an array of expected or unexpected caregiving challenges prior to or during the journey of care. These challenges necessitate prevention-related social needs, which in turn influence the uptake of informal kinship placement, placement stability, and child and family well-being (O'Brien, 2012; Osborne et. al, 2021; Schmidt & Treinen, 2017). The present study uncovers three patterns of major and minor challenges faced by informal kinship caregivers. In a study sample of informal kinship placement due to parental substance (65.77%), incident of child abuse/neglect (26.03%) and/or birth parent incarceration (21.61%), nearly half of the caregivers (49.04%) reported financial challenges as the leading challenge (Group 2), with the next largest class/group (32.05%) characterized by intergenerational family dynamics (Group 1) as the primary issue. Additionally, about one-fifth (19.91%) of the sample faced child behavioral and emotional health (Group 3) as the leading challenge. When delivering services to informal kinship caregivers facing specific major challenges, service providers can consider major minor challenges. For example, a lack of access to respite care was a pervasive, though not dominant, challenge across subgroups (classes) of Financial Challenge and Child Behavioral & Emotional Health.

Consistent with prior research (Goering & Lopez, 2024; Koh et al., 2022; Schlatter et al., 2023) informal kinship caregivers were disproportionately represented in the finance-led challenge class/group and the intergenerational family dynamics-led class/group. Class/Group of challenges about child behavioral & mental health was the smallest group. However, previous studies have indicated that informal kinship caregivers often utilize behavioral and mental health services for children less frequently or with greater delays compared to those in formal child welfare systems (Bramlett & Radel, 2017; Stein et al., 2014). Therefore, further investigation is warranted into the potential underestimation of child behavioral and emotional health issues due to factors such as health literacy, alongside

challenges in accessing healthcare rights within this group. This examination should particularly consider the strong link between child behavioral and mental health needs (e.g., ADHD) and exposure to parental substance use (Wilens et al., 2005), which was the primary reason for informal kinship placement in the present study sample, along with child abuse or neglect. Additionally, the limited decision-making authority regarding healthcare use, due to the absence of legal guardianship or custody, further complicates these caregivers' ability to effectively address these health issues (Schneiderman et al., 2012).

While prior research has assessed the bivariate associations between caregiving challenges and sociodemographic factors (Day et al., 2023; Gómez et al., 2023; Schlatter et al., 2023), the present study highlights the distinctive patterns of major and minor challenges, and how these patterns relate to multilevel determinants and the service utilization of Kinship Navigator Programs (KNPs) among informal kinship caregivers. Specifically, differences in age, sex, and race regarding class memberships of patterned challenges suggest that subpopulations of informal kinship caregivers may engage in KNPs with varying needs. For example, older, female, and BIPOC informal kinship caregivers were more frequently associated with the financial challenge class/group. However, this correlation diminished when adjusting for the effect of KNP participation among older and female caregivers. In contrast, BIPOC caregivers continued to report financial challenges more frequently than child behavioral and emotional health issues, regardless of KNP engagement. This may reflect the disproportionate number of women living in poverty within the study sample, where the link between sex and financial challenges can be mitigated by KNP participation.

Moreover, service and benefit disparities between formal and informal kinship caregivers may exacerbate classism, as the majority of informal caregivers experience financial hardships. The connection in older and racial minoritized subpopulations can only be slightly yet significantly addressed by KNP engagement, highlighting a persistent challenge. More

policy and intervention efforts should therefore focus specifically on these groups to more effectively address and ameliorate these finance related issues. To scale up impact on informal kinship caregivers, future research can also identify and enhance the mechanism of KNP engagement in potentially attenuating racial and sex disparities in intergenerational family dynamics-led challenges, as well as sex disparities in finance-led challenges.

When considering the role of sociodemographics alone in the class/group of intergenerational family dynamics relative to child's behavioral and emotional health, older age was associated with an increased likelihood of this class membership, whereas being female or BIPOC was associated with a decreased likelihood. Furthermore, even when controlling for the effect of KNP engagement, both BIPOC and female informal kinship caregivers were significantly less likely to belong to this class/group. Notably, as older informal kinship caregivers entered kinship placements, they were more vulnerable to issues of intergenerational family dynamics, even when engaged in KNPs. The intergenerational family dynamics class/group features challenges related to the child's relationships with their own parents, caregiver relationships with the child's parents, and a lack of access to respite care services.

In fact, the intergenerational family dynamics may be highly related to child health and care issues. Other research, such as that by Gable et al. (Gable et al., 2024), suggests that intergenerational conflicts in kinship placement families have been associated with child hyperactivity disorder, mental health concerns, and learning disabilities. Additionally, older informal kinship caregivers are more likely to experience challenges related to child behavioral and emotional health (Koh et al., 2024). These findings illuminate the intricate interplay between various sociodemographic factors and the pattern of intergenerational family dynamics-led challenges encountered in informal kinship care. This emphasizes the

necessity for nuanced support strategies that are responsive to the combined, diverse needs of all kinship caregivers in this class/group, especially older informal kinship caregivers.

Finally, the study's limitations must be considered. Given that Latent Class Analysis and mixture regression models are exploratory in nature (Finch & French, 2015), the results cannot be generalized to the entire population of informal kinship caregivers. Instead, the study's findings are indicative of potential patterns and classifications within the collected observed data. Importantly, as suggested by theories of cultural essentialism, humans tend to categorize phenomena and perceive these categories as definitive (Barrett, 2001). However, the findings from latent class analysis should be viewed as tools for simplifying complex realities, rather than as means to rigidly categorize individuals into fixed groups. Additionally, informal kinship caregivers, especially those from communities of color, face unique challenges exacerbated by historically high rates of adverse childhood experiences and structural inequalities, which their less representativeness in the study sample may influence the dynamics captured. These factors underscore the complexity of issues affecting these groups and the necessity of culturally sensitive approaches in research. The respondents in this study were recruited through convenience sampling, which may limit the diversity and representativeness of the study sample.

8. Conclusion and Implications

To prevent system involvement in out-of-home placements and achieve the preference to place children with kinship caregivers before non-kin, foster parents, the policy goal of Family First Prevention Services Act requires tailored service engagement of informal kinship caregivers that addresses the multilevel factors in influencing their service utilization. For informal kinship caregivers who receive significantly fewer services and benefits than formal counterparts, their challenges not only determine the uptake of informal kinship

placement but play a pivotal role in the utilization of KNPs, which were designed to ameliorate their challenges and to address related needs. Our research findings also pointed out KNPs can attenuate specific correlations between sociodemographic factors and patterned challenges.

The present study identified distinct patterns in the caregiving challenges among informal kinship caregivers and assessed the associations between challenge classes/subgroups and multilevel determinants and the role of KNP in their associations. The findings revealed the multifaceted nature of caregiving challenges among informal kinship caregivers, highlighting the roles of age, race, sex, and KNPs in shaping these experiences. The findings suggest sociodemographic considerations for addressing the prevention-related needs in the subpopulation of informal kinship caregivers by providing a multilevel context for the connection between predisposing factor, need factor, and service utilization of KNPs. As older, female and BIPOC informal kinship caregivers in the sample are vulnerable to specific patterns of caregiving challenge, the present study illustrates potential explanations for connections and gaps between leading challenges and service utilization. Attention to such relationships offers a point of intervention for future engagement of target populations of informal kinship caregivers in the kin-first culture of child welfare practice.

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PAPER 1 APPENDIX

Appendix 1.1.

WASHINGTON STATE KINSHIP CAREGIVERS SURVEY

The information will help Washington State understand the needs and circumstances of those who have taken on the responsibility of raising a kinship child. We appreciate your time and input. The bullet points below are information to keep in mind as you take the survey. **Your answers to this survey are anonymous!** ***We do not ask for your name.***

- For questions asking about the kinship child in your care, please answer for the kinship child that has been with you the longest. If two (or more) kinship children came into your care at the same time, please answer for the oldest.
- Child(ren) refers to kinship children of any age in your care.

PART I: Please share about the children you are currently raising.

1. How many children are you currently raising? _____

2. For each child, please tell us his/her age (write 0 if they are under one year old).

   1st Child's age _____ 4th Child's age _____

   2nd Child's age _____ 5th Child's age _____

   3rd Child's age _____ 6th Child's age _____

3. Of the children you are raising, how many are **NOT** your own birth children?

   _____

The next few questions ask about children you are raising for whom you are not the birth parent.

4. How many years have you been raising the child who has been with you the longest?

   _____years

5. What is your relationship with this child?

   ☐ Sibling
   ☐ Grandparent
   ☐ Cousin
   Aunt/uncle
   Niece/nephew
   ☐ Adoptive parent
   ☐ Family friend (godparent, neighbor, etc.)
   ☐ Other, please explain: _____

6. *An informal arrangement refers to kinship care provided without involvement with CPS or the formal child welfare system.*

If you are caring for your kinship child through an informal arrangement, please indicate if any of these arrangements apply to your situation. *(Check all that apply)*

- ☐ Parental consent agreement
- ☐ Durable power of attorney
- ☐ Informal arrangement (no paperwork)
- ☐ Family decision
- ☐ Health care consent waiver
- ☐ Non-parental custody (sometimes referred to as third-party custody)
- ☐ Guardianship
- ☐ Adoption
- ☐ Other, please explain: _____

_____

7. *If you are a formal kinship caregiver, your kinship child had to be placed in your home because of CPS investigation or involvement with the child welfare system.*

What is your legal or formal relationship with the child you have been raising the longest? *(Please check only one)*

- ☐ Guardian
- ☐ Foster parent (kinship caregiver that is licensed as a foster parent) Unlicensed caregiver
- ☐ Parental custody (sometimes referred to as a third-party custody) Adoption
- ☐ Guardian
- ☐ Other, please explain: _____
- ☐

8. What is the circumstance(s) that led to your raising the kinship child that has been with you the longest? (*Please check **up to two** circumstances)*

(Please refer to the instructions above if more than one child was placed at the same time)

- ☐ Age of birth parent
- ☐ Birth parental financial circumstance
- ☐ Birth parental substance use
- ☐ Birth parent left community for work/school
- ☐ Birth parent incarceration
- ☐ Incident of child/abuse neglect
- ☐ Birth parental behavioral health
- ☐ Parental physical health
- ☐ Death of birth parent / guardian
- ☐ Birth parent deportation
- ☐ Birth parent military service
- ☐ Birth parental homelessness
- ☐ Child's injury
- ☐ Other, please explain: _____

_____

11. Where do you currently receive help with raising your kinship children? *(Please check all that apply)*

- ☐ Spouse or partner
- ☐ Friends
- ☐ Support groups
  - ☐ Religious
  - ☐ organizations School
  - ☐ Family support center
  - ☐ Private agency and/or community organization
- ☐ Public social services (state, county, city, or tribal)
- ☐ Behavioral health services
  - ☐ Community health clinic
  - ☐ Other relatives
  - ☐ Other, please explain: _____

_____

12. There are a number of services, resources, laws, and policies that affect your ability to care for your children. What do you believe is the **single most important** thing that needs to change to help you and others in your situation?

_____

PART II: Please remember your name is not on this survey and the information you provide is anonymous. However, this information will be very helpful.

Please tell us about yourself.

13. Choose the category that best describes your current situation:

- ☐ Married
- ☐ With a Partner
- ☐ Single
- ☐ Widowed
- ☐ Divorced
- ☐ Separated

14. Are you employed?

- ☐ Yes
- ☐ No
- If yes, approximately how many hours do you work each week?_____/week

15. Including yourself, how many persons over age 18 currently live inyour home?_____

16. How many persons under age 18 currently live in your home?_____

17. How many of these persons do you financially support? _____

9. Please check **three** issues that present the greatest challenges related to raising the kinship children who are currently in your care. *(Please check **only three** items)*

- ☐ Housing
- ☐ Legal problems
- ☐ Your own emotional health
- ☐ Child-care arrangements
- ☐ Your own physical health
- ☐ Child's emotional health
- ☐ Your own relationship with the child's birth parents
- ☐ Lack of access to respite care services (someone to watch the child to allow a temporary break from caregiving)
- ☐ Child's behavior
- ☐ Finances
- ☐ Delaying your retirement
- ☐ Paying for child's medical care
- ☐ Child's relationship with own parents
- ☐ Child's education
- ☐ Other, please explain: _____

_____

10. The following are services and resources for which you may have needs that are not being met. Please check the **three** services or resources for which you have the greatest unmet needs regarding the children in your care. *(Please check **only three** items)*

- ☐ Legal services and advice
- ☐ Counseling for your child
- ☐ Parenting classes for you Medical care for the child Services for infant and toddlers
- ☐ Services for children with special health care needs
- ☐ Transportation
- ☐ Working with child's school or teachers
- ☐ Adequate special education service for your child
- ☐ Drug or alcohol treatment services for your child, parent or yourself
- ☐ Recreational and social activities for the child
- ☐ Respite care (someone to watch the child to allow a temporary break from caregiving)
- ☐ Child-care
- ☐ Finding a support group for yourself
- ☐ Affordable and adequate housing
- ☐ Financial support
- ☐ Other, please explain: _____

18. In which county do you live? _____

19. In what year were you born?_____

20. What is your gender?

- ☐ Male
- ☐ Female
- Other, please specify: _____

21. Are you of Hispanic, Latino, or Spanish origin?

- ☐ No, not of Hispanic, Latino, or Spanish origin
- ☐ Yes, Mexican, Mexican American, Chicano
- ☐ Yes, Puerto Rican
- ☐ Yes, Cuban
- ☐ Yes, another Hispanic, Latino, or Spanish origin: _____

22. What is your race? *(Please check all that apply)*

- ☐ White
- ☐ Black or African American
- ☐ American Indian or Alaska Native
- ☐ Asian Indian
- ☐ Chinese
- ☐ Filipino
- ☐ Japanese
- ☐ Korean
- ☐ Vietnamese
- ☐ Native Hawaiian
- ☐ Guamanian or Chamorro
- ☐ Samoan
- Other Asian: _____
- Other Pacific Islander: _____

23. Are you, or other adults contributing to the household, currently receiving income or income assistance from any of the following sources? *(Please check all that apply)*

- ☐ Wages, Salary
- ☐ Social Security
- ☐ Social Security Disability (SSI) Payments
- ☐ Pension
- ☐ Child Support
- ☐ Non-Needy Relative TANF grant ("child-only grant")
- ☐ Monthly foster care reimbursement
- ☐ Adoption support subsidy
- ☐ Relative Guardianship Assistance Program subsidy (RGAP)
- ☐ TANF grant for yourself and children
- ☐ Food Stamps
- ☐ State medical assistance for your child(ren)
- ☐ Child Care Assistance (Working Connections Child Care)
- ☐ Support services provided by the Division of Children and Family Services/DCYF
- ☐ Tribal per capita payment
- ☐ Tribal treaty income
- ☐ Other, please explain: _____

_____

24. What is your total annual household income from all sources?

- ☐ Less than $5,000
- ☐ $5,000 to $9,999urces
- ☐ $10,000 to $19,999
- ☐ $20,000 to $29,999
- ☐ $30,000 to $39,999
- ☐ $40,000 to $49,999
- ☐ $50,000 to $59,999
- ☐ $60,000 to $69,999
- ☐ $70,000+

25. Where do you think your kinship child(ren) will be living one year (12 months) from now?

- ☐ With me
- ☐ Parent/guardian
- ☐ Foster parent
- ☐ Another relative
- ☐ Other, please specify: _____

26. Are you participating in a kinship navigator program?

Yes ☐ No ☐

27. How did you learn about this survey?
   - ☐ Family/friend
   - ☐ Department of Child, Youth, and Families (DCYF) or Department of Social and Health Services (DSHS)
   - ☐ Local community non-profit
   - ☐ Other: (please specify) _____

28. What resources and/or services have been the most helpful to you as a kinship caregiver raising a child?

---

29. Is there anything else you would like to share with us about your needs and/or experience as a kinship caregiver?

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

Thank you for participating in this survey

Appendix 1.2

Table 1

Comparing Class Solutions of Latent Analysis Class Model of Caregiving Challenge in Informal Kinship Placement

	Model fit criteria					**Diagnostic criteria**		
Models	**logLik**	**AIC**	**BIC**	**aBIC**	**X2**	**entropy**	**Lo–Mendell–Rubin LRT**	**Smallest class count n (%)**
1 Class	-4371.59	8773.16	8841.19	8762.07	5656.49	-	-	-
2 Class	-4301.68	8787.01	8849.04	8195.74	1847.99	0.30	566.33****	314 (45.46)
3 Class	-4252.17	8598.34	**8805.95**	8083.57	2109.58	**0.61**	112.17****	138 (19.97)
4 Class	-4222.32	8570.64	8856.36	8439.38	2019.97	0.31	74.50****	93 (13.44)
5 Class	-4187.21	8532.42	8890.71	7959.04	1958.27	0.20	33.70****	68 (9.85)
6 Class	**-4161.70**	**8513.39**	8944.24	**7919.54**	**1810.61**	0.27	61.65****	57 (8.2)

Note. *p < .05, **p < .01, ***p < .001, ****p < .0001

Table 2

Item-responsible Probabilities of the 3-Class Caregiving Challenge Model

Variable	**Latent Class**		
	Class1 Financial Challenges (*n* =331)	Class 2 Child's Behavioral & Emotional Health (*n* = 137)	Class 3 Intergenerational Family Dynamics (*n* = 221)
Latent class prevalences (%)	48.04	19.91	32.05
Predicted class membership (%)	51.67	20.32	28.01
Item-response responsibilities corresponding to a response of positive endorsement			
Housing	0.26	0.06	0
Legal problems	0.07	0.06	0.07
Caregiver own	0.11	0.24	0.16

Variable	Latent Class		
	Class1 Financial Challenges (*n* =331)	Class 2 Child's Behavioral & Emotional Health (*n* = 137)	Class 3 Intergenerational Family Dynamics (*n* = 221)
Latent class prevalences (%)	48.04	19.91	32.05
Predicted class membership (%)	51.67	20.32	28.01
Item-response responsibilities corresponding to a response of positive endorsement			
emotional health			
Child-care arrangements	0.14	0.02	0.06
Caregiver own physical health	0.15	0.11	0.09
Child's emotional health	0.15	**0.62**	0.40
Caregiver own relationship with the child's birth parents	0.11	0.06	**0.44**
Lack of access to respite care services	0.23	0.23	0.09
Child's behavior	0.09	**0.86**	0.16
Finance	**0.60**	0.14	0.21
Delayed retirement	0.12	0.06	0.17
Paying for child's medical care	0.02	0.00	0.00
Child's relationship with own parents	0.10	0.09	**0.55**
Child's education	0.13	0.17	0.09

Table 3

Multinomial Logistic Regression Results: Single Multilevel Determinant of Class Membership of 3-Class Model of Kinship Caregiving Challenge in Informal Kinship Caregivers

Latent Class Membership	AIC	BIC	Chi-squared test	Coefficient	Wald test *p*
3-class model	8598.33	8805.95	2110.63	-	-
Age	7777.09	7983.60	1576.58		

Child's Behavioral & Emotional Health (reference) Financial Challenge Intergenerational Family Dynamics				0.038 0.04	0.006** 0****
Sex *Child's Behavioral & Emotional Health (reference)* Financial Challenge Intergenerational Family Dynamics	7997.62	8227.41	1684.43	(Male as reference) -1.08 -1.23	 0.048* 0.035*
Race *Child's Behavioral & Emotional Health (reference)* Financial Challenge Intergenerational Family Dynamics	8356.59	8577.37	2700.27	(White as reference) 0.05 -20.83	 0.35 0****
Income *Child's Behavioral & Emotional Health (reference)* Financial Challenge Intergenerational Family Dynamics	7947.85	8240.72	2100.03	 1.74 2.52	 0.28 0.11
Rurality/Urbanity *Child's Behavioral & Emotional Health (reference)* Financial Challenge Intergenerational Family Dynamics	7542.54	7760.61	1642.11	(Rural as reference) 0.25 0.12	 0.40 0.62

Note. N = 634. SE = standard error; OR = odds ratio; CI = confidence interval.
*p ≤ .05, **p ≤ .01, ***p ≤ .001; ****p ≤ .0001

PAPER TWO
REACHING AND SERVING INFORMAL KINSHIP CAREGIVERS IN WASHINGTON STATE KINSHIP NAVIGATOR PROGRAMS: A RE-AIM IMPLEMENTATION ANALYSIS FROM THE PERSPECTIVES OF CAREGIVERS AND NAVIGATORS WITH LIVED EXPERIENCE EXPERTISE

Abstract

Background and Purpose: Informal kinship caregivers comprise the majority of caregivers for maltreated children who cannot safely remain with their biological parents, yet they receive less support compared to their formal counterparts. Kinship navigator programs (KNPs) aim to address these disparities by helping caregivers navigate complex eligibility, service gaps, and systemic barriers that reinforce racial and class inequities. However, gaps remain in understanding street-level implementation affecting informal caregivers. This qualitative study illustrates the street-level delivery of KNPs from the lived expert perspectives of caregivers and navigators.

Methods: Using a community-engaged research (CEnR) approach, we analyzed secondary qualitative data from four focus groups with informal kinship caregivers (N = 36) and one with kinship navigators (N = 14) in Washington State. Guided by the RE-AIM framework, data were analyzed through deductive content analysis and inductive thematic analysis to explore barriers and facilitators to program reach, effectiveness, and implementation.

Findings: Findings highlight that despite policy priorities promoting kinship care, systemic barriers—including restrictive evidence standards and underfunded programs—limit service access and sustainability. Facilitators of successful implementation include low-barrier intake, stigma-free and empowerment approaches, peer support, community connectedness, and culturally responsive services.

Conclusion: Strengthening kinship-centered design, informed by the lived expertise of caregivers and navigators, is critical for advancing equitable, preventive systems of care for informal kinship families.

Keywords: informal kinship care, kin first culture, lived experience expertise (LEE), peer support, implementation science

1. Introduction

Informal kinship caregivers represent the majority of those caring for maltreated children who cannot remain safely with their biological parents, particularly in grandparent-headed households. In 2022, approximately 2.2 to 2.5 million children lived with kinship caregivers, constituting roughly 3% of the child population in the United States (Kids Count Data Center, 2023; U.S. Census Bureau, 2023). Grandparents head approximately 59 to 63% of these kinship, non-foster care arrangements (Radel et al., 2016; U.S. GAO, 2023). Nearly 90% of kinship caregivers operate outside the child welfare system (i.e., informal kinship caregivers) and do not receive comparable support and benefits to their counterparts in the formal system (Bramlett et al., 2017; Child Welfare Information Gateway, 2023; Rushovich et al., 2017).

Informal kinship caregivers are eligible for some, but significantly fewer supports and services than their formal counterparts. For example, child-only Temporary Assistance for Need Family (TANF) subsidies, Supplemental Security Income (SSI), Medicaid, and the Supplemental Nutrition Assistance Program (SNAP, formerly known as Food Stamps) are selective and means-tested. Additionally, the National Family Caregiver Support Program, reauthorized in 2016, expanded eligibility for informal kinship caregivers from age 60 to 55. However, many states have yet to fully utilize federal grants to develop the National Family Caregiver Support Program or a kinship navigator program (GAO, 2020). Currently, most states are still less likely to implement non-mandatory services or programs to support kinship caregivers beyond the mandatory requirement of family search (Koh, Ware, & Lee, 2022). The availability of supportive services for kinship caregivers remains optional and is distributed unevenly between formal/licensed and informal/unlicensed kinship caregivers. Criticism has been directed at the services provided to formal kinship caregivers in most

states, citing insufficient assistance in accessing essential information, resources, and support for informal kinship caregivers (Letiecq et al., 2008).

The vast majority of families in informal kinship care are primarily served through Kinship Navigator Programs (KNPs). According to federal law, a Kinship Navigator Program is defined as ‘a program to assist kinship caregivers in learning about, finding, and using existing supportive programs and services to meet the needs of the children they are raising and their own needs, and to promote effective partnerships among public and private agencies to ensure kinship caregiver families are served (42 U.S.C § 627 (a)(1)). KNPs are designed to remove barriers and facilitate the utilization of services needed by kinship care families. By serving all kinship caregivers, KNPs may reach more families in need, including informal kinship caregivers (U.S. GAO, 2023). KNPs can bridge the gap in service accessibility by assisting both licensed/formal and unlicensed/informal caregivers and promoting service access for diverse communities (Rushovich et al., 2021). Therefore, KNPs carry significant potential to reduce inequitable access to support among informal kinship caregivers and their relative children.

The present study explores the implementation of KNPs intended to enhance service utilization by kinship caregivers. This study draws from the lived implementation perspectives of kinship navigators and the lived experiences of informal kinship caregivers in Washington State.

1.1. Informal Kinship Caregivers in Need Fall Outside of Formal Welfare Service Systems

Existing legislative policies favor formal kinship care, often excluding informal kinship caregivers from accessing benefits and services beyond child-only TANF and Kinship Navigator Programs. However, under the Family First Prevention Services Act (FFPSA),

informal kinship care is expected to serve as a prevention strategy to keep children from entering formal foster care placements. Nonetheless, informal kinship caregivers have historically received limited formal support from state agencies, with nonparental child-only TANF being the primary form of social assistance. Kinship care households account for 41% of non-parental child-only TANF recipients, two-thirds of whom are grandparents (Golden & Hawkins, 2012). In Washington State, nonparental child-only TANF recipients make up 64% of all child-only TANF recipients, with approximately 51% being kinship caregivers (Washington State Department of Social & Health Services, 2023). Despite this, kinship caregivers often lack knowledge of these social assistance programs and face difficulties navigating the systems, resulting in only 12% of eligible kinship families receiving child-only grants nationwide (Mauldon, Speiglman, Sogar, & Stagner, 2012).

Outside of TANF, KNP is the only formal support available, playing a crucial role in mitigating disparities and helping families navigate complex eligibility criteria, service gaps, and access barriers that exacerbate racial and class inequities. KNPs provide vital information on TANF, SNAP, childcare, Social Security, and other supportive services, and can boost TANF participation by guiding informal kinship caregivers through the application process. As FFPSA emphasizes the evidence base of service programs, it is essential to embed locally-contextualized, prevention-related needs into KNP, such as preventive legal services, which have been crucial in preventing children from entering state custody but remain unaddressed by FFPSA as an evidence-based service alone.

1.2. Introduction of KNPs

Support services through KNPs may involve a variety of offerings, including financial assistance (e.g., TANF, SNAP, Social Security), educational opportunities, training sessions, support groups, referrals to various social, behavioral, or health services, and aid in

navigating government and other forms of assistance, whether financial or otherwise (Testa, Hill & Ingram, 2020).

Under the amended Social Security Act, Title 42 The Public Health and Welfare, the Kinship Navigator Program has twofold objectives. Firstly, it aims to improve caregivers' knowledge of services and help them identify and access the services kinship caregivers need for themselves and their children in care. In other words, KNPs are not intended to provide direct services needed by the families of kinship caregivers (Child Welfare Information Gateway, 2019). Secondly, the program aims to promote effective partnerships among public and private agencies to ensure kinship caregiver families are served (Annie Casey Foundation, 2018).

KNPs provide information, referral, and follow-up services to kinship caregivers instead of direct concrete services. A kinship navigator is made accessible for consultation, information dissemination, service transfer, and coordination subsequent to a kinship caregiver's application or referral for services. Kinship navigators facilitate kinship caregivers' connection to critical and necessary benefits and services for themselves or the children under their care (Annie Casey Foundation, 2023). These programs also serve to enhance the understanding of agencies and providers regarding the needs of families led by relatives, offering education on the systems that must be navigated to access support (Annie Casey Foundation, 2023). Importantly, navigators and related service providers take on the burden of navigation and coordination so that involved families do not fall through the cracks and result in child removal (Brown et al., 2023).

Littlewood et al. (2020) identified the essential elements of the kinship navigator model: 1) Recruiting participants; 2) Conducting intake and needs assessment; 3) Engaging and building relationships with kinship families; 4) Identifying and updating community resources and gaps in services and systems; 5) Providing education to caregivers about

available resources; and 6) Providing referrals or assisting caregiver with self-referral. Littlewood et al. (2020) also identified the essential organizational components of the kinship navigator program including: 1) understanding information, education, and resource needs of the relative caregivers and the children they are raising; 2) building community partnerships; 3) coordinating systems of care; and 4) creating data sharing agreements with key partners.

Prior research on program implementation in the demonstration sites of KNPs found challenges including transportation in rural areas, practice issues such as frequency and structure of face-to-face contact with caseworkers, coordinated services to address caregivers' multiple challenges, and community partner engagement (Child Welfare Information Gateway, 2019).

1.3. Limited Evidence on Implementing Kinship Navigator Programs to Support Informal Kinship Caregivers

KNPs were launched more than a decade ago, and their effectiveness examined across seven demonstration sites by the Family Connect grants under the Child Welfare/TANF collaboration in 2012. KNPs have recently been supported by IV-E new kinship navigator program grants and IV-B subpart 2 in 2018 for its development, enhancement, or evaluation (Child Welfare Information Gateway, 2019; Lee et al., 2016). That is, the Children's Bureau may reimburse through federal Title IV-E funds to States, Tribes, and Territories up to 50% of the expenditures to provide kinship navigator programs that meet the evidence base of program requirements, or are deemed as the minimum 'promising' level of evidence base, as articulated by the Clearinghouse (Children's Bureau, 2020; p.3). Specifically, the Title IV-E Prevention Services Clearinghouse (2023) rates the evidence of the effectiveness of KNPs as either well-supported, supported, promising, or currently does not meet criteria (U.S. Department of Health and Human Services, 2019). To date, the Department of Health and Human Services (DHHS) has determined five KNPs (i.e. Arizona, Colorado, Missouri,

Nevada, and Washington) as evidence-based. Notably, a majority of these five evidence-based interventions only included formal kinship families in their evaluations (Steinmetz & Fox 2023), with Washington State being the exception, as it included a mix of both formal and informal kinship families (Fowler et al., 2023). Meanwhile, while the federal government has demonstrated support for KNPs through the FFPSA, no qualifying states have accessed the federal matching funds for their evidence-based KNPs as of December 2022 met the threshold (Koh et al., 2021; GAO, 2023).

Still, KNPs remain one of few service programs accessible for informal kinship caregivers in addition to TANF, SNAP, and National Family Caregiver Support Program (if kinship caregivers age is over 55). However, KNPs reviewed by Title IV-E Prevention Services Clearinghouse have targeted more formal kinship caregivers than informal kinship caregivers (e.g., Colorado Kinnected Kinship Navigator Program, Ohio's Kinship Supports Intervention/ProtectOHIO) (Forehand et al., 2022; Wheeler et al., 2020). Extra outreach efforts need to be made to reach the larger, informal kinship caregivers who may not be connected to child welfare systems (Child Welfare Information Gateway, 2019).

2. Research Aim

Given the low utilization of support and services alongside the high level of needs in informal kinship caregivers, it is crucial for navigator programs to actively generate demand to promote uptake and utilization (Gleeson, 2020). Despite the extensive body of literature examining the importance of service utilization among formal kinship caregivers, research gaps remain in the street-level program implementation as it relates to enhancing the service utilization of informal kinship caregivers attending the kinship navigator program.

This qualitative study aims to describe the street-level implementation of KNPs from the lived expert perspectives of informal kinship caregivers and navigators using the implementation science framework of RE-AIM (i.e. Reach, Efficacy/Effectiveness, Adoption, Implementation, and Maintenance).

3. Methods

3.1. Study Design

This was a secondary qualitative study nested within a pilot evaluation of enhanced KNPs across urban, suburban and rural counties (i.e., Benton, Franklin, Mason, Pierce, Thurston, Lewis, Yakima) in Washington State. These counties were purposively sampled to represent ethnically diverse communities of kinship caregivers across Washington State. For instance, urban African American communities in Pierce County, Spanish-speaking communities in rural Yakima—predominantly home to migrant workers—and tribal communities in Tribal Nations were included. In contrast, kinship caregivers in Benton, Franklin, Mason, Thurston, and Lewis counties primarily represented White communities in rural areas. King County, the most densely populated urban county, did not participate in the study due to workforce limitations that hindered their ability to commit to program fidelity when invited. The present study focused on informal kinship caregivers outside of Latinx and Tribal communities, whose experiences have been analyzed in separate publications (Day, 2024; Gómez, 2024).

The data were collected from a university-service agency partnership using a community-engaged research (CEnR) approach, a joint effort of the Aging and Long-Term Support Administration (ALTSA) and the Department of Children, Youth, and Families (DCYF), in partnership with Partners for Our Children (P4C) at the School of Social Work, University of Washington, Seattle. The collected qualitative data aimed to provide

implementation-related insight to the service delivery of existing KNPs in Washington State. Stakeholders in this program involved in the evaluation process of community engaged research (CEnR) include service users (i.e., kinship caregivers), service providers (i.e., kinship navigators), and members of the Kinship Caregiver Oversight Committee (KCOC). The stakeholders co-developed the protocols for collecting data through focus groups, including participant recruitment and interview guide. This study received Institutional Review Board (IRB) approval from the University of Washington Human Subjects Division (STUDY00019802).

3.2. Data Collection and Interview Guide

Using a semi-structured interview guide, one focus group was conducted with representative kinship navigators (N = 14) in 2019 to collect their lived experience expertise about service delivery, program implementation, program fidelity monitoring, and perspectives on the service utilization of kinship caregivers attending the usual kinship program in Washington State. Four focus groups were conducted with informal kinship caregivers (N = 36) to collect their lived experience of service utilization through KNPs between the years 2020 and 2021. The interview guide for informal kinship caregivers consisted of 10 prompts about their experience with KNP, what needs were met or unmet through KNP, and their suggestions for service delivery and provision (See Appendix 2.1). Each focus group (n = 5) lasted about 1.5 hours, was audio-recorded and transcribed verbatim in English.

3.3. Participant Eligibility, Recruitment, and Participant Characteristics

A total of 50 participants, comprising 36 informal kinship caregivers and 14 navigators, were interviewed in their respective focus groups. Informal kinship caregivers attending the KNPs at the existing pilot sites were invited by kinship navigators to participate in the research. Four focus groups with informal kinship caregivers were conducted in English or

Spanish before their peer-to-peer support groups to increase accessibility and attendance. These sessions were facilitated through connections with local kinship navigators. Onsite respite care for their kinship children was provided, and participants were compensated with $20 gift cards for their time.

Table 2.1 summarizes the demographic characteristics of the 36 informal kinship caregivers. The 36 participants were predominantly mid- or older-aged kinship caregivers (*n* = 33, age above 45, 92%), female (*n* = 27, 75%), White (*n* = 23, 64%), married (*n* = 24, 67%), not living with other adults in the same household (*n* = 25, 69%), retired or not employed (*n* = 16, 45%), or working part-time (*n* = 9, 25%). Most were related to the kinship child as grandparents (*n* = 28, 78%). They were all engaged in their local KNPs in more rural areas (i.e. Tri-Cities including Kennewick, Pasco, and Richland, and Pierce, Thurstan, Yakima).

Table 2.2 summarizes the demographic characteristics of the 14 state kinship navigators. Similarly, the 14 navigators were predominantly mid- or older-aged (*n* = 11, age above 45, 79%). All were female and predominantly White (*n* = 11, 79%), with most never having been kinship caregivers themselves (*n* = 10, 71%). They were primarily married (*n* = 10, 71%) and hired by community service agencies (*n* = 11, 79%), serving more than one area, including both urban and suburban regions (*n* = 18, 128%). Most worked as full-time navigators (*n* = 8, 57%), with ≥90% of their clients being informal kinship caregivers (*n* = 7, 50%), and had an average experience of more than 6 years (*n* = 6, 43%).

Table 2.1.
Demographic Characteristics of Informal Kinship Caregiver Participants

Characteristics	Number (n = 36)	Percentage (%)
Age		
35-45	3	8%
46-55	8	22%

56-65	18	50%
≥66	7	19%
Biological Sex		
Female	27	75%
Male	9	25%
Race/Ethnicity*		
Black/African American	0	0%
American Indian/Alaskan Native	1	3%
Asian	0	0%
Native Hawaiian/Other Pacific Islander	3	8%
Hispanic/Latino	10	28%
White	23	64%
Mixed race	1	3%
Marital status		
Single	5	14%
Married	24	67%
Divorced	2	6%
Widowed	3	8%
Separated	2	6%
Other adults living in the home		
No	25	69%
Yes	11	31%
Employment status		
Full-Time	1	3%
Part-Time	9	25%
Retired	5	14%
Not employed	11	31%
Self-employed	6	17%
I don't know	2	6%
No response/missing	2	6%
Relationship with child		
Grandparent	28	78%
Aunt/Uncle	3	8%
Unrelated Kin	2	6%
Great-grandparent	1	3%
Other	1	3%
No response/missing	1	3%

Note. * Participants were allowed to select more than one response option.

Table 2.2.
Demographic Characteristics of State Kinship Navigator Participants

Characteristics	Number (n = 14)	Percentage (%)
Age		

31-35	1	7%
36-45	2	14%
46-55	5	36%
56-65	5	36%
≥66	1	7%
Sex		
Female	14	100%
Male	0	0%
Race/Ethnicity		
Black/African American	2	14%
American Indian/Alaskan Native	0	0%
Asian	0	0%
Native Hawaiian/Other Pacific Islander	0	0%
Hispanic/Latino	1	7%
White/Caucasian	11	79%
Mixed Race	0	0%
Ever a kinship caregiver		
Yes	4	29%
No	10	71%
Employment agency		
Community Service Agency	11	79%
Area Agency on Aging	3	21%
Service Areas *		
Urban	9	64%
Suburban	9	64%
Rural	8	57%
Employment		
Full-Time	8	57%
Part-Time	5	36%
No response/missing	1	7%
Time employed as a Kinship Navigator (years)		
0-1	3	21%
2-5	5	36%
6-10	4	29%
≥11	2	14%
% of informal kinship caregivers served currently		
≥ 60%	1	7%
≥ 70%	1	7%
≥ 80%	1	7%
≥ 90%	5	36%
100%	2	14%
No response/missing	4	29%

Note. * Participants provided service to more than one county/area.

3.4. Qualitative Data Analysis

The present study employed a hybrid deductive and inductive thematic analyses on transcribed qualitative data drawn from 5 focus groups. First, using the RE-AIM framework (reach, effectiveness, adoption, implementation, and maintenance) as an analytic framework (Glasgow et al., 2019), direct content analysis (Hsieh & Shannon, 2005) was performed through deductive coding and focused coding techniques (i.e., the strength of codes). Boyatzis (1998) outlines a systematic approach to deductive coding, consisting of three stages: 1) establishing themes through a thorough reading and reflection on the theory framework; 2) checking these themes for compatibility with the raw data via pilot coding; and 3) ensuring the reliability of the coding process through inter-rater reliability testing (p. 36).

The top-down, theory-driven deductive analysis technique was used to identify different implementation issues about serving informal kinship caregivers through KNPs. The analysis categorized codes under the framework categories of reach (R), effectiveness (E), adoption (A), implementation (I), and maintenance (M). Figure 2.1 shows the RE-AIM Model that guides the deductive analysis of this qualitative study. The analysis ensured that themes relevant to implementation science were considered, even if research did not intend to identify all theoretical constructs (Bonner et al., 2021).

The RE-AIM framework is particularly effective for analyzing the local KNPs because it integrates rich qualitative data at multiple stages of program implementation (Holtrop et al., 2018), which is crucial for capturing the unique challenges faced by informal kinship caregivers. By using qualitative assessments, organizations can deepen understanding of what happened, as well as the 'how' and 'why.' Organizations can also better design and adjust interventions to address key RE-AIM dimensions, ensuring that programs are more equitable

and impactful (Glasgow et al., 2019). Additionally, stakeholder engagement through qualitative methods like interviews and co-creation helps in understanding and addressing contextual root causes, leading to more informed decision-making and program adaptations for specific target service users (Holtrop et al., 2018).

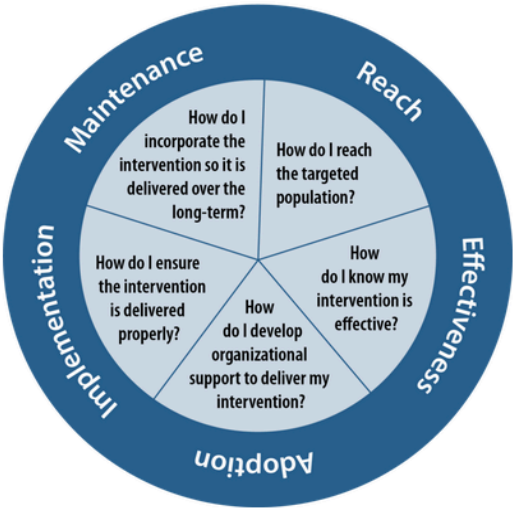

Figure 2.1. Top-Down Deductive Coding Analytical Framework: RE-AIM Framework of Evaluating Implementation Outcomes (Glasgow et al., 2019)

However, the theoretical framework may not capture implementation issues beyond its five domains, the inductive data-driven analysis was conducted after deductive coding and categorization. Consequently, a bottom-up, inductive qualitative thematic approach (Braun & Clarke, 2006) was applied to identify emerging themes. I took a six-stage approach to inductive coding: familiarization with data; generation of initial codes; searching for themes; reviewing themes; defining themes; final analysis (Braun & Clarke, 2006). The data-driven codes and themes were categorized under the five domains of the RE-AIM model for comparison with the theory-driven deductive codes. The codebook was modified in the interactive process until no new codes were generated.

The hybrid approach of using both deductive and inductive analysis has the benefit of addressing the imbalance of theory-driven and data-driven coding analyses while

complementing each other (Bonner et al., 2021). The hybrid approach also provides a richer sense of both informal kinship caregivers' and navigators' voices though a bottom-up coding of themes that emerged from the data, as well as a top-down, structured data analysis following the well-established RE-AIM framework. All the qualitative data analyses were conducted with AtLas.ti (2024 version). Finally, the trustworthiness of qualitative data analysis was pursued by the presentation of a transparent codebook and member checking to the Washington State Kinship Care Oversight Committee. All the qualitative data analyses were conducted with AtLas.ti (2024 version).

3.5. Researcher Positionality

The researcher's worldviews and personal mindset (e.g., attitudes, values, feelings, appraisals, positions) collectively inform their approach to fieldwork and the implementation of qualitative studies (Nilson, 2017). The current study analyzed secondary, de-identified qualitative data, so the researchers' positionalities influenced the approach to data analysis. The researcher identified as an Asian child protective services worker before transitioning to the current role of a child welfare researcher. This background provides him with both insider and outsider perspectives, drawn from his experience working with child-welfare-involved families across all child welfare service deliveries and conducting child welfare policy implementation and translation research. His firsthand experiences in child placement cases shaped his core beliefs in children's right to timely legal, relational, and cultural permanency without compromising their best interests. He believes these rights are better pursued in relative or fictive kinship environments without compromising child safety.

He grounds his approach to child welfare practice and research in an intergenerational perspective, recognizing that many child maltreatment cases he encounters have roots in traumas experienced by previous generations. This study was driven by his belief that child welfare systems can be more trauma-informed and prevention-driven by amplifying the

voices of competent kinship families at the edge of system involvement. Moreover, his experiences of near poverty during childhood and the support from relatives as a first-generation high school student grounded his belief in the sustainability of enhanced natural support from informal networks. While the researcher's positionality gives him an insider's perspective in this study, he fully acknowledges that his current position as a researcher also makes him an outsider. The researcher also recognizes that he has never experienced kinship placement, system intervention, or being a social service recipient.

4. Main Findings

Overall, informal kinship caregiver and navigator participants articulated their street-level lived experiences about the implementation of local KNPs, framed through the RE-AIM model. Their nuanced reports corresponded to each dimension of the framework, with the exception of adoption. Specifically, participants identified 3 themes related to reach (i.e. “Pathways to Accessing Local Kinship Navigator Programs”, “Barriers to Effective Outreach and Service Delivery”, “Community and Cultural Dynamics in Service Access”), 2 themes pertaining to effectiveness (“Kinship Navigator Program Effectiveness”, “Peer Support Group Effectiveness”), 3 themes associated with implementation (“Resource Coordination and Community Engagement”, “Addressing Complex Intergenerational Needs”, “Equity and Accessibility in Service Delivery”), and 1 theme linked to maintenance (“Sustaining Services in Resource-Constrained Environments”). Illustrative examples of coded data are presented in Table 1 (See Appendix).

4.1. Reach

Reach is defined as 'the number, proportion of the intended audience, and participants’ representativeness compared to the intended audience' at the individual level (Glasgow et al., 2019; Obi-Jeff et al., 2022). This study identified three key themes: Pathways to Accessing

Local Kinship Navigator Programs, Barriers to Effective Outreach and Service Delivery, and Community and Cultural Dynamics.

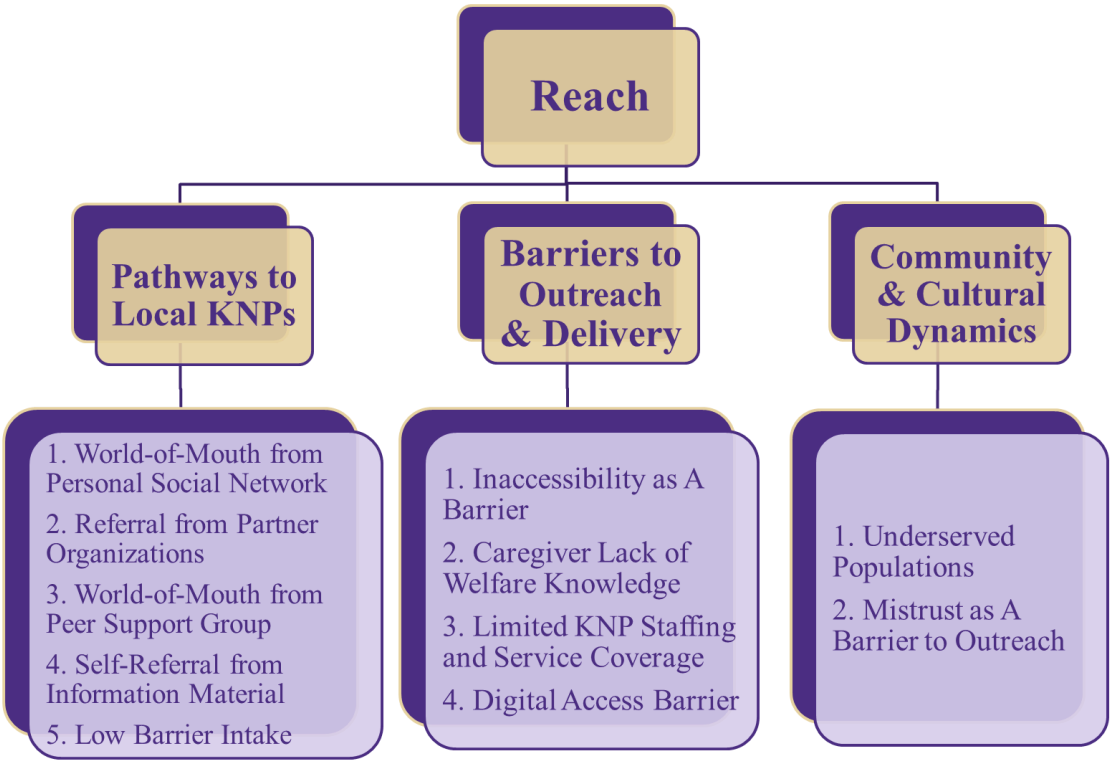

Figure 2.2. Reach Component of Local KNP Implementation Among Informal Kinship Caregivers

4.1.1. Pathways to Accessing Local Kinship Navigator Programs.

Informal kinship caregivers used various channels to learn about and access support services in their course of caring for maltreated children, underscoring the critical role of facilitators within their informal support networks. The most commonly cited pathways included (1) Word-of-Mouth Through Personal Social Network, (2) Referrals From Initial Intake Service Agencies, (3) Kinship Caregiver Support Groups, and (4) Self-Referral. Notably, the low-barrier intake process of local KNPs facilitated their service uptake.

4.1.1.1. Word-of-Mouth Referral through Personal Social Network. Word-of-mouth is one of the most prevalent pathways through which informal kinship caregivers learn about support services. This organic method of information sharing helps connect caregivers who might otherwise remain unaware of available resources. In some cases, caregivers

receive referrals from family members living far away, illustrating the broad reach of word-of-mouth networks:

> *"I actually heard about the kinship program through my sister, and she lives 300 miles away from me."* – Caregiver, Thurston, Speaker 4

4.1.1.2. Referral from Partner Organization. Partnerships among community organizations play a crucial role in transferring caregivers to KNPs. These referrals leverage the networks and partnerships established by other social and legal services, making it easier for caregivers to connect with needed resources:

> *"I heard about it through the Wise program at Catholic Community Services."* – Caregiver, Thurston, Speaker 7

4.1.1.3. Word-of-Mouth Referral through Peer Support Groups. Caregivers often hear about services through support groups with lived experience of participating in similar programs. These referrals provide a sense of trust and encouragement, which can be essential for caregivers hesitant to seek help:

> *"I was in a similar situation, never been a parent before. Suddenly thrown into raising this troubled little boy. And I was grieving to a friend, who was a friend of another member here at the table. And she said 'Well, I know my friends are going to a place that really helps.' And so she, uh, gave me the name of it, the number of Family Education Support Services. And I called them, and they said 'Tuesday night you can come along and join us.'"* – Caregiver, Thurston, Speaker 10

4.1.1.4. Self-Referral through Informational Materials. Some caregivers discovered KNPs independently through informational materials such as flyers. These materials serve as vital tools for outreach, offering a sense of relief and direction when caregivers are unsure of where to turn:

"And I just looked up and there was a flier on the wall. And I read that flier and I just felt like I had kind of an answer to my prayers or questions. What are we gonna do? And so contacted, uh, the agency and I think I talked to Lynn [navigator] first." – Caregiver, Thurston, Speaker 12

4.1.1.5. Low Barrier Intake. The ease and simplicity of the intake process can significantly influence whether caregivers follow through with accessing services. A streamlined intake process helps reduce the stress of seeking support, making it more likely that caregivers will engage with the program:

"Well they made it extremely easy, they give you a very simple questionnaire. It wasn't like complicated, it wasn't like 900 pages, thank God." – Caregiver, Tricities, Speaker 3

4.1.2. Barriers to Effective Outreach and Service Delivery

Kinship caregiver support services faced significant challenges in ensuring equitable access and outreach. These barriers limit the effectiveness of service delivery and prevent caregivers from available resources. The following themes highlight key barriers to effective outreach and service delivery, including (1) Inaccessibility as a Barrier, (2) Lack of Welfare Knowledge, (3) Limited Staffing and Service Coverage, (4) Digital Access Barrier, and (5) Community and Cultural Dynamics in Service Access.

4.1.2.1. Inaccessibility as a Barrier. Physical and logistical inaccessibility is a major barrier to caregivers seeking support. Services can be difficult to find, and caregivers struggled to connect with available resources. One caregiver emphasized the need to make support services easier to locate and access:

"It's so hard to find. So, making the help like more accessible and not just more acceptable." – Caregiver, Pierce, Speaker 5

Transportation challenges further exacerbated inaccessibility. Navigators attempted to address this issue by offering flexible meeting locations, such as local parks, to accommodate caregivers' needs:

> *"Sometimes they don't have transportation, so I say, 'Is it any, any parks close to where you live, that we [navigators] can, we can go there [Family Team Decision Making Meeting involving navigators].'"* – Navigator, Speaker 7

4.1.2.2. Lack of Welfare Knowledge. A lack of awareness about available services, such as KNPs, poses another significant barrier. Many caregivers were unaware of the scope and benefits of these programs, which limited their ability to seek help:

> *"No one even really knows about the Kinship Navigator, uh, or at least they don't know how far they are, uh, they go, what they offer. They don't know that."* – Caregiver, Pierce, Speaker 2

4.1.2.3. Limited Staffing and Service Coverage. At the structural level, insufficient staffing and high caseloads hindered the effectiveness of reaching potential service users. With only one navigator serving multiple counties, the capacity to meet caregivers' needs is severely constrained:

> *"I can go meet them somewhere if they have transportation issues. We have one navigator for five counties."* – Navigator, Speaker 8

In urban areas, such as King County, the high volume of kinship caregivers and limited staff resources create bottlenecks in service provision:

> *"The ten thousand kinship caregivers in King County, had um, we had one person to field those calls, to go through thirty messages on her phone... to figure out what they need, to get those resources, to make those appointments."* – Navigator, Speaker

4.1.2.4. Digital Access Barriers. Technological and digital barriers further limited outreach, particularly among older caregivers and those living in rural areas. Limited internet access

and comfort with technology can prevent caregivers from accessing critical online resources:

> *"A lot of the families we serve are kind of beyond the age of social media... Some of them have internet access, some of them don't."* – Navigator, Speaker 6

In rural communities, digital infrastructure challenges made it difficult to utilize online platforms for outreach and communication:

> *"Then, rural communities and their lack of access to internet and software."* – Navigator, Supervisor

4.1.3. Community and Cultural Dynamics in Service Access

On the community level, navigators discussed the role of cultural, geographic, and community-specific factors in shaping how services are perceived, accessed, or rejected.

4.1.3.1. Underserved Populations. Certain populations remained underserved due to cultural, geographic, or community dynamics that inhibited access to support services. Navigators in the study reported that their service population is predominantly white, while other ethnic or cultural groups, such as the Russian community, tend to rely on internal social networks rather than external support systems:

> *"Ours [service population] is predominantly white. Um, we also have a very large Russian population down in Vancouver but I have zero Russian clients... they take care of each other."* – Navigator, Speaker 8

Geographic isolation also presented challenges for service delivery in rural areas. In regions such as Skamania County, families often do not seek help, further exacerbating the gap in service provision:

> *"And uh, then we work with a lot of rural families, and those families are very difficult to help at all. Like in Skamania County, I have never helped anybody in that county. They just don't ask for help."* – Navigator, Speaker 8

This lack of engagement highlighted a need for tailored outreach strategies that address the unique dynamics of underserved populations.

4.1.3.2. Mistrust as a Barrier to Outreach. Mistrust of external entities, particularly government service providers, was a significant barrier to outreach in certain communities. Communities with past negative experiences with state services or historical trauma, in particular, may resist seeking help due to a lack of trust. This mistrust complicated efforts to provide support:

> *"Um, doing outreach, getting the response from them, cause, they don't typically trust governments, or people outside their own community. So, that's my biggest challenges. Getting them to ask for and accept help that's there for them."* – Navigator, Speaker 8

This reluctance stems from historical or cultural factors that influence perceptions of external support, making it difficult for navigators to build trust and deliver services effectively.

4.2. Effectiveness

Effectiveness is defined as 'the degree to which the intervention changes intervention outcomes and quality of life, including producing unintended or negative results' at the individual-level (Glasgow et al., 2019; Obi-Jeff et al., 2022). This study identified two key themes: Identified Program Components for Kinship Navigator Program Effectiveness and Self-Knowledge Impact: Kinship-Centered Peer Support Group Effectiveness. Additionally, three subthemes under each key theme are illustrated below.

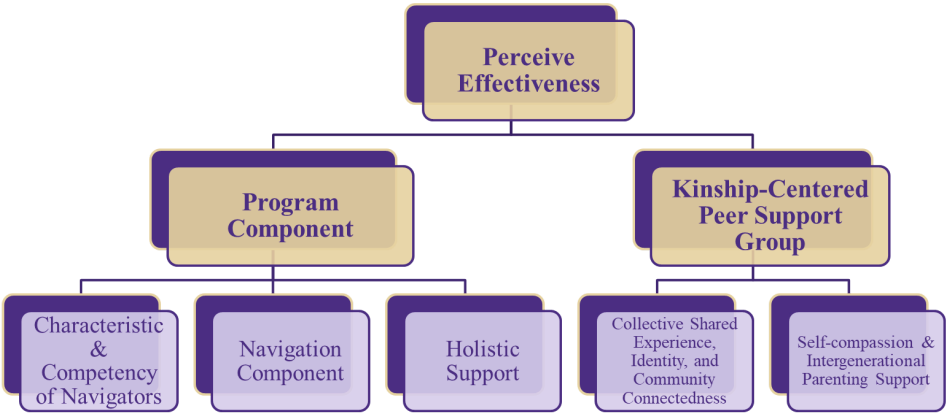

Figure 2.3. Effectiveness Component of Local KNP Implementation Among Informal Kinship Caregivers

4.2.1. Identified Program Components for Kinship Navigator Program Effectiveness.

The present study documented the implementation from the perspectives of caregivers and navigators with lived experience expertise. The effectiveness domain highlighted the program components identified as essential for their bottom-up defined effectiveness. These components fall into three subthemes under their identified components for KNP effectiveness: the characteristics and competencies of navigators, the delivery of navigation, and caregiver support groups.

4.2.1.1 Characteristics and Competencies of Navigators: Fostering a Non-Judgmental and Stigma-Free Environment.

4.2.1.1.1. Destigmatizing and Non-Judgmental Service Approach. A key factor in the perceived effectiveness of caregiver support services is their ability to create an environment free from stigma and judgment. Caregivers often faced feelings of shame or guilt when seeking help as a result of internalized stigma, but navigators played a significant role in mitigating these feelings by fostering a welcoming, safe and non-judgmental atmosphere. One caregiver described their initial hesitation and how the service experience transformed that:

"Speaker 5: And even calling them [navigators] initially I was kind of, not feeling good. A little bit ashamed almost.

Speaker 3: But they make you feel so welcome.

Speaker 5: Yeah. Absolutely.

Speaker 3: And they don't look down on you. They don't judge you.

Speaker 4: Never make you feel ashamed." – Caregiver, Tricities

Support groups and community partnerships with rehabilitation centers, for example, also helped to normalize difficult experiences, such as addiction, further reducing caregivers' internalized stigma:

"At this point it's pretty much open to where we've even had, uh, the, the head of the Saint Pete's recovery center come in and talk to us and various people from the addiction side of it." – Caregiver, Thurston, Speaker 3

4.2.1.1.2. Compassionate Care. Caregivers also valued the compassionate approach taken by service providers, who offered a deep level of empathy and understanding without needing to fully experience the caregiver's situation. This understanding helps caregivers feel validated and supported:

"They don't have to be walking in my shoes to be able to say, 'You got a shitty situation raising those two god damn monsters. You should get rid of them and go back to your great retired life.'" – Caregiver, Thurston, Speaker 9

4.2.1.2. Navigation Program Component: Empowerment through Knowledge and Resource Sharing.

4.2.1.2.1. Sharing Local Parenting Resources. A crucial aspect of empowering caregivers is connecting them with local parenting resources and educational opportunities. Navigators play an essential role in bringing valuable information and expertise directly to caregivers. This exposure to diverse speakers and educational sessions helps caregivers

build knowledge in areas such as family law, behavioral and mental health literacy, financial literacy, and child-focused services:

> *"She [navigator] also brings resources here like speakers, uh, uh, the commissioner for family law or something. Um, um, Monarch, um, Children's Catholic. Uh, she brought a financial aid, uh, lecturer one time talked about family education in finances. Public speakers like that."* – Caregiver, Thurston, Speaker 10

4.2.1.2.2. Behavioral Health [Addiction] Literacy. Education on addiction and behavioral health is another key component of empowerment. Some caregivers faced situations involving adult children's substance misuse and benefited from learning to recognize signs and understand the context of addiction related to children in their care. This type of behavioral health literacy helps caregivers make informed decisions and better supported family members dealing with addiction recovery. One caregiver described how attending an educational session transformed their understanding of drug use in their household:

> *"A whole new world now. Come in and identify with us the new drugs, what to look for. And I realized at that meeting that what I threw away from the laundry was heroin. What I had been smelling from my son's was meth. I mean there's, so just the education piece of it is huge."* – Caregiver, Thurston, Speaker 5

4.2.1.3. Holistic Support for Caregivers' Logistical and Emotional Needs. Kinship Navigator Program addresses a wide range of needs, offering logistical and emotional support to ensure caregivers are equipped to care for children effectively.

4.2.1.3.1. Financial Aid for Basic Goods and Housing Stability. Financial assistance is crucial for ensuring caregivers can meet basic needs and maintain housing stability. Caregivers, often older and retired, expressed how even modest financial support can significantly alleviate their fatigue and stress:

"And $160, $175 bucks a pop, boy, um, what a difference it makes for our fatigue at our [older, retired] ages." – Caregiver, Thurston, Speaker 6

Financial aid can also provide critical support during transitional periods, such as securing housing after unexpected challenges. One caregiver described how assistance with rent and deposits helped them achieve long-term housing stability:

"Well it helped me out the first time I did, because I decided I had to stop my grandson and I was living with another lady, but I had to move out of her apartment because of a certain situation... so I didn't have money for like the deposit or the rent and they helped me get my apartment. So I've been in that same apartment (laughs) for almost five years." – Caregiver, Tricities, Speaker 6

4.2.1.2.3. Legal Service Assistance. Navigators also provide vital support in the complex legal processes that many caregivers encountered. Assistance with court navigation, legal advice, and referrals to attorneys empowered caregivers to advocate effectively for themselves and the children in their care. One caregiver highlighted the relief of having a navigator present during court proceedings:

"Shelly [navigator] was in court when my wife and I were there. And, uh, that was comforting. And she had a relationship with the, uh, the judge." – Caregiver, Thurston, Speaker 3

Navigators guided caregivers in accessing legal resources, ensuring they were aware of available services and the steps they needed to take:

"My clients tend to need a lot of legal assistance. I've seen a lot of new clients that are just beginning the custody process and don't know if they need to hire a lawyer or what resources are available. Um, I know I mentioned legal assistance earlier but since my counterpart is in Yakima, they do have a rate, we call it, Options Clinic, that if a client were to call in you can just sign them up for this clinic." – Navigator, Speaker 6

Referrals to attorneys, pro bono legal service providers and ongoing communication further demonstrated navigators' commitment to empowering caregivers:

> *"She helped me find an adoption attorney, and she would email me back and ask if there was anything else we needed."* – Caregiver, Thurston, Speaker 6

4.2.1.1.3. Assistance with Paperwork. Navigators provide essential support by helping caregivers navigate complex paperwork processes, which can otherwise be a source of frustration and anxiety. The difficulty in handling custody paperwork, for example, highlights the need for this practical assistance:

> *"Um, I need someone to help me fill out this paperwork. Like the paperwork for custody was unsafe. I mean it's like huge and I finally got that then and then and they said, 'Oh, sorry, we only take one, one sided cases.' And I'm like, 'Well when you copy it off it doesn't come out one sided page, it comes out two.'"* – Caregiver, Pierce, Speaker 9

This hands-on support helps reduced stress and ensured that caregivers can successfully access the services and legal protections they needed.

4.2.2. Self-Knowledge Impact: Kinship-Centered Peer Support Group Effectiveness. Aside from the identified components of KNP effectiveness at the provider and program delivery level, informal kinship caregivers and navigators with lived experience expertise co-created self-knowledge that informs their perceived effectiveness of kinship-centered peer support groups. This key theme includes two subthemes: (1) Collective Shared Lived Experience, Caregiver Identity, and Community Connectedness as a Source of Resilience and Self-Compassion, and (2) Intergenerational Parenting Support for Caregiver Resilience.

4.2.2.1 Collective Shared Lived Experience, Caregiver Identity, and Community Connectedness as a Source of Resilience.

4.2.2.1.1. Universality of Kinship Caregiving (Shared Experiences, Emotions, Support, or Coping). One of the most critical aspects of kinship caregiving support groups is the sense of universality or community connectedness they provided. Caregivers found validation through shared experiences, knowing that others understand their emotions and struggles. This shared understanding created a safe space where caregivers could express difficult feelings, such as anger and frustration, without fear of judgment:

> *"When I got here everyone understood my anger and my feeling of injustice. And there wasn't any place else where I felt safe to do that."* – Caregiver, Thurston, Speaker 6

Additionally, authentic connections with others who have faced similar challenges foster a deep sense of trust and emotional safety. Caregivers valued the ability to share experiences with people who genuinely "get it":

> *"Talking to someone who had been through it, who could look me in the eye and say 'I get it.' ... There is that authenticity of saying heart to heart, 'I understand what you're going through, here's a safe place.'"* – Caregiver, Thurston, Speaker 12

The community connectedness from the support group served as a predisposing factor in caregivers' help-seeking. Without these shared experiences, caregivers feared judgment and isolation, which could hinder their ability to seek support:

> *"If I would've had, in the state of mind I was in, come into this arena talking to somebody who'd never been through it before ... I would've felt that judgment. And I, and I would've backed away."* – Caregiver, Thurston, Speaker 12

The group also serves as an instillation of hope during difficult times in their caregiving journey:

> *"It felt like a lifeline. Okay, I'm drowning now, but there's a light at the end of the tunnel."* – Caregiver, Thurston, Speaker 5

By witnessing how others navigate similar challenges, caregivers gain new perspectives and coping strategies:

> *"It's good to get different opinions, and kind of see you know how other people that are in the same situation are doing this stuff."* – Caregiver, Thurston, Speaker 10

4.2.2.1.2. Group Acceptance. Group acceptance is a critical factor that helps caregivers process feelings of guilt, shame, frustration, and internalized stigma. In the group setting, caregivers found a community where their experiences were understood and validated, reducing the impact of judgment and stigma:

> **"***But coming to talk to someone who had been through it, who could look me in the eye and say 'I get it.' ... there is that authenticity of saying heart to heart, 'I understand what you're going through, here's a safe place.' Come and be with these same people.***"**—Caregiver, Thurston, Speaker 12

4.2.2.1.3. Non-Judgmental Space for Open Expression. The support group also served as a safe space where caregivers can express themselves openly, without fear of criticism or shame. This freedom to share personal struggles and humor lightens emotional burdens:

> *"But to be able to come here and just pour myself out and not be judged it's awesome."* – Caregiver, Thurston, Speaker 5

This environment of unconditional support reassured caregivers that their experiences and feelings were valid:

> *"They [group members] don't look down on you. They don't judge you."* – Caregiver, Tricities, Speaker 3

4.2.2.1.4. Empowerment and Purpose through Collective Identity. A sense of collective purpose reinforces caregivers' commitment to their roles. By focusing on the shared goal of ensuring children's safety and well-being, caregivers feel empowered and validated in

their decisions. This shared purpose helped reframe their challenges in a more positive light:

> *"We could've, we could've just done like everybody else and let them go to the foster system or whatever. So then I started to be able to look at my situation a little different, right? Now come to the group and then they say it's about the safety of the... kids... pretty soon I'm actually feeling pretty good about what I'm doing."* – Caregiver, Thurston, Speaker 6

4.2.2.1.5. Peer Connection and A Sense of Normalcy for Children in Kinship Care. Support groups also functioned as a form of respite care for caregivers. While caregivers attended group sessions, children in their care had the opportunity to interact with other children in similar situations. These groups fostered peer connections, offering a sense of normalcy for children who may not have siblings or peers at home. By forming friendships with others in kinship care, children were able to see that they are not alone, helping to normalize their experiences and provide emotional support.

> *"So many times they form friendships... that really helps them, because that way they know ... 'Okay, I'm not alone in this.'"* – Caregiver, Thurston, Speaker 8

These connections provide children with a sense of belonging and understanding:

> *"It was really good to know that 'Okay, we, it's okay. You know there are other people that have other children out here that I can be friends with that have, that understand why I'm living with my grandma.'"* – Caregiver, Thurston, Speaker 8

4.2.2.2. Self-Compassion and Intergenerational Parenting Support for Caregiver Resilience.

4.2.2.2.1. Emotional Support. Support groups provided a crucial source of emotional stability for kinship caregivers who often experienced overwhelming stress and isolation. These groups offered a safe and understanding environment where caregivers can express

their struggles and receive genuine support. The emotional safety net provided by these groups helps caregivers navigate difficult times and help regain a sense of balance:

> *"This group has given me the, the very interesting useful resources as well as just the sanity... true meaning of the word support. Like the holding up a limb of a tree, you know? I was falling apart. And I can be completely supported emotionally during the worst of it."* – Caregiver, Thurston, Speaker 4

4.2.2.2.2. Gaining Age-Appropriate (Grand)Parenting Knowledge and Skills. Support groups served as an educational resource for kinship caregivers who may struggle with age-appropriate parenting techniques as a grandparent. Caregivers benefited from advice and strategies on how to communicate with children in developmentally appropriate ways. This knowledge enhanced their ability to handle complex parenting situations:

> *"And it [the support group] was just nice... because I'm always trying to figure out... 'Okay when am I gonna say what to the kids about where they're at?' And it was all of this age appropriate... I come to group, I am better suited to deal with those lovely monsters when I, when I return home."* – Caregiver, Thurston, Speaker 9

By learning from peers who faced similar challenges, caregivers developed confidence in their parenting skills and decision-making.

4.2.2.2.3. Resilience. Participation in support groups fostered resilience by helping caregivers manage daily stress and challenges. The collective wisdom and shared coping strategies made caregivers feel more equipped to handle their caregiving hurdles and responsibilities. For example, one caregiver noted how the group helped them manage the stress of caring for children:

> *"I come to [support] group, I am better suited to deal with those lovely monsters when I return home."* – Caregiver, Thurston, Speaker 9

The group also helped caregivers maintain their mental well-being when dealing with financial pressures and caregiving demands:

> *"It has kept my sanity, (laughs) I mean when you're stressed over not being able to get clothes for your grandchildren, or paying your electric bill..."* – Caregiver, Thurston, Speaker 3

4.2.2.2.4. Vicarious Resilience Through Shared Lived Experience. The power of shared lived stories and experiences in support groups also provides caregivers with vicarious resilience. Hearing how others navigated their challenges offered hope and perspectives, acting as a lifeline during difficult moments:

> *"Well this is what I went through with my addicted child... it felt like a lifeline. Okay I'm drowning now but there's a light at the end of the tunnel."* – Caregiver, Thurston, Speaker 12

Even during relatively good times, sharing success stories and positive experiences reinforced the group's strength and purpose. These stories highlighted progress and resilience, reminding caregivers of their achievements:

> *"It's just good to have... I feel good about being able to, um, sometimes add success stories to how difficult things are."* – Caregiver, Thurston, Speaker 4

The ability to share both struggles and successes underscored the importance of the group as a continuous source of motivation and perspective. The longitudinal natural peer support from the group can't be replaced by the formal support system.

4.3. Implementation

Implementation is defined as 'the degree to which those settings and staff members deliver a program or apply policy as intended, including the adaptations made and the related costs' at the staff and setting levels (Glasgow et al., 2019; Obi-Jeff et al., 2022). This study identified three key themes: (1) Community Resource Mobilization, Coordination and

Engagement, (2) Addressing Complex Intergenerational Needs, and (3) Equity and Accessibility in Service Delivery.

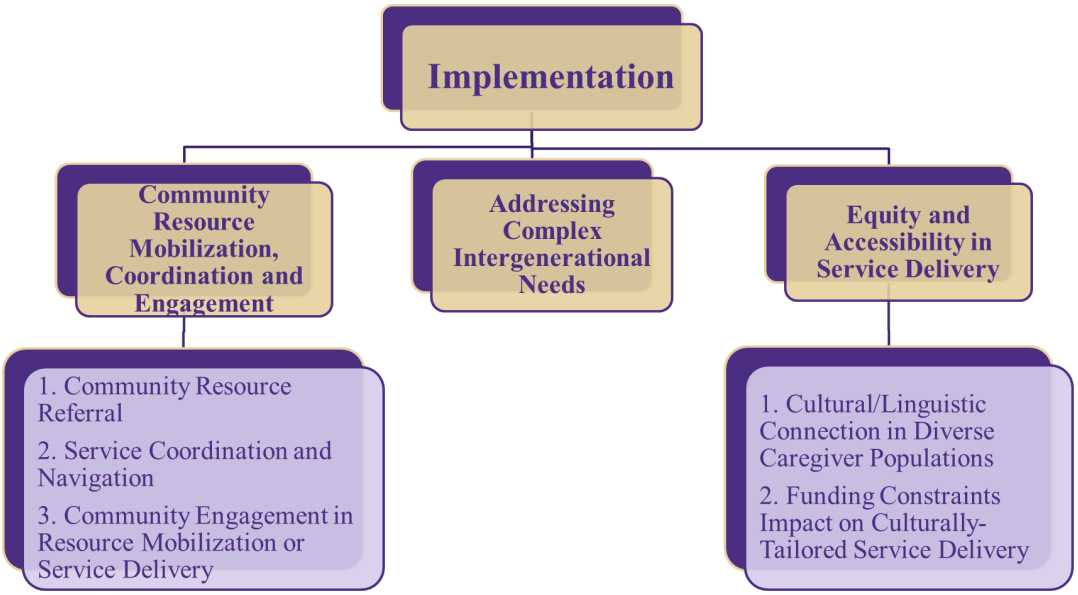

Figure 2.4. Implementation Component of Local KNP Implementation Among Informal Kinship Caregivers

4.3.1. Community Resource Mobilization, Coordination and Engagement

4.3.1.1. Community Resource Referral.

Navigators and caregivers emphasized the critical role of referring families to essential community resources. The flexibility and broad reach of programs like kinship navigation ensured that families received assistance without eligibility constraints:

> *"Our Kinship Navigator Program, we can serve anybody. There's no limit cause we're just referring them to resources in the community."* – Navigator, Speaker 8

Caregivers highlighted the tangible benefits of these referrals, including access to affordable goods and legal services. One caregiver shared how a referral enabled them to secure a car seat and legal support:

> *"Referred me to [inaudible 00:12:48] and I bought a car seat through them for cheaper than like I could get from Walmart, and then she also told me about the legal aid stuff..."* – Caregiver, Tricities, Speaker 7

Referrals also played a role in empowering caregivers with knowledge of available services, even if those services were not immediately needed:

> *"They did let me know what there was available... if you need this or... something else that you know can help with, they let us know what they are."* – Caregiver, Tricities, Speaker 4

These referrals extended to specialized services such as trauma-informed parenting classes and mental health support:

> *"They provided, uh, parenting classes. And it was like, how perfect was that? ... A series of trauma-informed parenting classes was wonderful, absolutely wonderful."* – Caregiver, Thurston, Caregiver 9

> *"SparksHope... told me about this, cause I told her I was like looking to get my niece into counseling, but I can't because I don't have a signature from her grandparents."* – Caregiver, Pierce, Caregiver 3

4.3.1.2. Service Coordination and Navigation. Navigators played an active role in coordinating services by taking on logistical tasks for families, such as arranging appointments. This hands-on support reduced barriers and increased access:

> *"If they have energy assistance I go around and make an appointment, they don't have to call and make an appointment."* – Navigator, Speaker 4

4.3.1.3. Community Engagement in Resource Mobilization or Service Delivery

Community engagement is a key component of resource coordination, with service agencies and community partners actively supporting families. This collective community care effort strengthened the support network for informal kinship caregivers:

> *"I've noticed a greater, um, sense of community engagement... Service clubs we've been rallying to support our families, adopting them for the holidays, asking them to speak about kinship care..."* – Navigator, Supervisor

These collaborative partnerships increased investment in kinship care and ensured that families received both logistical and emotional support.

4.3.2. Addressing Complex Intergenerational Needs

Effective KNP implementation of KNPs must account for intergenerational needs and dynamics, including intergenerational family relationships, trauma, and legal challenges, to truly promote kinship family stability. Programs that address these complexities help ensure child-centered decision-making and promote resilience across generations. Specifically, as informal kinship caregivers step in to prevent child removal or entry into foster care, they face multifaceted challenges that require significant resilience. First, they struggled with intergenerational family dynamics.

> *"You're dealing with not only taking in the children. But you're dealing with their parents. On both sides of it. And then there's the split loyalty within the family over some people agree that you took, you have the children. And some don't. So it, it rocks your world in every single way."* - Caregiver, Thurston, speaker 6.

Oftentimes, kinship caregivers stepped in with a focus on child-centered decision-making.

> *"I told John [pseudonym], 'Your mom calls and she can barely will call and say, Guess what John? I got us a house, come on, we're going to be living together. Just tell her, No mom, I love you but I'm not gonna go."* - Caregiver, Pierce, speaker 4.

In the course of informal kinship caregiving, they must navigate legal, emotional, and relational complexities while striving to support children and maintain family stability in skip-generation or multi-generation households. In particular, when considering child

permanency, kinship caregivers often face challenges related to child custody, which can involve significant intergenerational conflict.

> *“Yeah, like my four-year-old grandson I just got, uh, a guardianship. I had to kidnap my son and take him across the street after, the day after Thanksgiving to be very, to be precise.”* - Caregiver, Pierce, speaker 9.

Intergenerational trauma and resilience are deeply intertwined in the experiences of kinship caregivers. These caregivers are often tasked with supporting children who have experienced trauma stemming from prior family environments, while simultaneously coping with their own past and present struggles. The challenges of caregiving extend beyond immediate needs, encompassing generational patterns of abuse, mental health issues, and the need to protect children from further harm. One caregiver described the difficult decision to intervene when her grandson faced abuse in her own mother’s care. The complex trauma, combined with strained family dynamics, highlights the difficult choices caregivers must make to ensure a child's safety:

> *"He's [grandson] got anger issues cause he was with my mother who was the most abusive person in the world... So I went down there and I'm like, don't do that, I go there kidnap him... With my son's permission, of course."* - Caregiver, Pierce, Speaker 9.

In addition to dealing with the trauma of the children they care for, caregivers also grappled with feelings of guilt and societal judgment related to their own adult children’s struggles. Another caregiver reflected on her attempts to seek mental health services for her son, expressing the emotional burden and judgment she faced:

> *"My addicted son has dealt with seven mental issues his whole life... I just had copious amounts of mom guilt by the time he was giving me this baby to raise."* - Caregiver, Thurston, Speaker 12.

When implementing KNPs, navigators followed up with caregivers to provide ongoing support, addressing evolving family needs and promoting successful outcomes in informal kinship caregiving, where no specific timeline is defined.

> *"I go through my spreadsheet on Mondays, see who I had called, call 'em again, the next Monday I call 'em again. So I try to give them a chance, you know."* - Navigator, speaker 4.

In certain cases, such as those involving custody, follow-up support may be essential. As one caregiver shared:

> *"She helped me find an adoption attorney, and she would email me back and ask if there was anything else we needed."* - Caregiver, Thurston, speaker 6.

4.3.3. Equity and Accessibility in Service Delivery

Implementation efforts must also focus on reducing these barriers to effectively reach all eligible families. Ensuring equitable access to services requires addressing funding constraints, cultural and linguistic needs, and the barriers faced by underserved populations.

4.3.3.1. Cultural/Linguistic Connection in Diverse Caregiver Populations. In maintaining effective caregiver services, the ability to connect culturally and linguistically with diverse populations is crucial. Caregivers and navigators recognize that shared language fosters rapport and trust. For instance, one navigator noted the importance of speaking Spanish with clients, saying:

> *"Well, I think it's true. If they see, um, speak a little bit of English, that, she knows that I'm there, and I do speak Spanish and she speaks Spanish, she'll try to talk to me first."* – Navigator, Speaker 7

Additionally, growing populations, such as the Samoan community, pose challenges in communication. The use of interpreters is a maintenance strategy to ensure accurate communication:

Supervisor: "We've seen a growing Samoan population."

Speaker 8: "Yeah, it's a Samoan population."

Speaker 4: "And I wanna clear up ours, you know, as interpreters. I use an interpreter to make sure, most everyone can speak..." – Navigator, Speaker 5

4.3.3.2 Funding Constraints Impact on Culturally-Tailored Service Delivery.

Navigators also contend with the challenge of maintaining services due to funding constraints. Budget limitations often dictate which populations can be served, affecting the availability of culturally tailored services. One supervisor remarked:

"Because, if they don't serve specific populations with some of our funding... we have to deal with funding to serve the family." – Navigator, Supervisor

This quote reveals the tension between funding limitations and the desire to provide equitable care. Maintenance of services depends not only on the availability of resources but also on navigating these constraints to ensure that families from diverse backgrounds receive appropriate support.

4.4. Maintainence

Maintenance is defined as 'the sustained effectiveness at the participant level and sustained (or adapted) delivery at the staff and setting levels' (Glasgow et al., 2019; Obi-Jeff et al., 2022). This study identified one key theme: Sustaining Services in Resource-Constrained Environments.

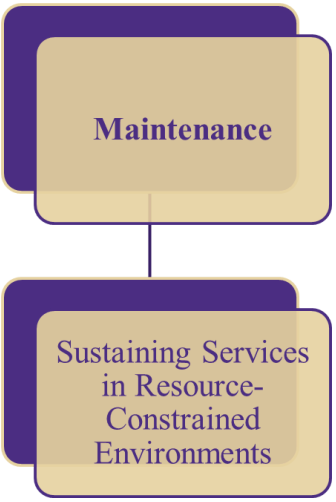

Figure 2.5. Maintenance Component of Local KNP Implementation Among Informal Kinship Caregivers

4.4.1. Sustaining Services in Resource-Constrained Environments

Finally, navigators reported challenges in maintaining consistent and high-quality services due to limited staffing, funding, and administrative support. Navigators often prioritize direct client services over tasks like outreach and follow-up, which can impact long-term program sustainability. However, they expressed concerns about scaling up local KNPs due to workforce shortages. Local navigators faced challenges in resource-constrained roles, balancing multiple responsibilities, including case management, event planning, and administrative tasks.

> *"I've just seen navigators wear so many hats, they're doing case management, they're doing event planning, they're doing, you know, they're answering the phone calls, there's so much that they're doing."* - Navigator, speaker 2

The same structural workforce limitations also impacted program fidelity. Specifically, challenges arose in consistently following up and maintaining program standards due to capacity constraints.

> *"I just don't think there's capacity to give follow up. I know that, like, another agency that I worked with, that had this big team. They would, they had to follow up with the*

client six months later, um, but I just don't think we have that capacity to do that." - Navigator, speaker 3.

5. Discussion

This qualitative study illuminated the street-level, participatory program implementation from the perspectives of informal kinship caregivers and navigators with lived experience expertise. The findings address a gap in the literature on implementation science concerning informal kinship care, which, despite being a prevalent form of care for maltreated children, remains understudied due to feminization, racialization, and stigmatization of kinship care and the opioid epidemic facing grandfamilies (Dolbin-MacNab et al., 2021) in the United States. KNPs are one of little formal supports available to informal kinship caregivers, helping them achieve physical permanency (i.e. placement stability) for children and prevent entry into formal foster care. However, these programs are often underfunded and underdeveloped across many states. To optimize their uptake and effectiveness, it is crucial to address the implementation science behind KNPs, ensuring their uptake, development, and adaptation meet the needs of caregivers and children in their care.

Informal kinship caregivers and navigators with lived experience expertise in this study meaningfully contributed to the client-/person-centered definition and the use of evidence for KNP program modification and adaptations. We identified considerable self-reported barriers, facilitators, and program components to optimize the reach, effectiveness, implementation, and maintenance of KNPs in community settings. Facilitators for reach included low-barrier intake, leveraging multiple sources of caregivers' informal social networks, and strong community partnerships and coordination. For effectiveness, key factors were a non-judgmental, stigma-free, and empowering approach, and program components of self-compassion, health literacy, holistic support, longitudinal peer support, intergenerational

practice, and community connectedness. Facilitators for implementation included community resource mobilization, coordination and engagement, accessible and equitable service delivery, and cultural and linguistic connection. On the other hand, the primary barrier to implementing informal kinship care is the lack of funding, which impedes service provision, delivery, and maintenance. Addressing these identified facilitators and barriers could enhance the uptake, implementation, and scaling of community-based supportive services for kinship caregivers.

As 78% of informal kinship caregivers in this study were related to children in care as grandparents, the implementation facilitators should be kinship-centered/focused and age-friendly. Currently, no systems have been designed centering kinship caregivers despite the policy emphasis on kinship care dating back to the Adoption and Safe Families Act of 1997 and more recently the Family First Prevention Services Act of 2018. Child welfare systems were primarily designed with non-relative foster parents in mind, school systems were structured to assist parents, and aging services were created to support those caring for older parents (Carter et al., 2023). As a result, kinship caregivers often have to seek out exceptions or navigate unconventional pathways to access the support and resources they need along with the community-mobilizing coordination efforts by navigators. A kinship-centered design with the input of street-level expertise from caregivers and navigators should be incorporated into the system of care as part of the policy priority of promoting kinship care.

The longitudinal natural peer support component demonstrated perceived effectiveness in promoting holistic kinship well‑being through support groups facilitated by navigators with lived experience. Recent studies have recommended enhanced support for kinship caregivers through the implementation of peer‑to‑peer navigation services (Carter, 2023; Denby, 2011; Littlewood et al., 2024a; Littlewood et al., 2024b). Existing effectiveness studies of peer

models in kinship care services, along with evidence indicators from the Title IV‐E Clearinghouse, have primarily focused on system‐level outcomes such as child maltreatment re‐reports and family disruption (Littlewood, Cooper, & Pandey, 2020). This study contributes to our nuanced understanding of the enduring role of peer support in informal kinship caregivers. Specifically, peers with lived experience are uniquely positioned to leverage their expertise in navigating systemic oppression, structural stigma, and workforce turnover (Littlewood et al., 2024a). Their support fosters both direct and vicarious resilience, thereby mitigating adverse impacts on the well‐being of informal kinship caregivers. This practice—grounded in collective experience and community connectedness within informal support networks—has long been established among minoritized populations as a means to promote radical healing and foster radical hope (Mosley et al., 2020).

However, despite the longstanding use of peer mentors within child welfare systems to support families, little research has examined the applicability of these approaches to kinship care. Arci and colleagues' systematic review (2023) found that existing application of peers as mentors in child welfare systems focused on parent peer mentoring as a strategy to facilitate family reunification, and to enhance the service utilization among caregivers of children with mental health challenges. They called for more structural support in the selection, qualification, training, and supervision of peers serving as mentors within child welfare services.

Across the RE-AIM framework, we found the perceived importance of funding support in the implementation sustainability of local KNPs was the main contributing factor that encouraged caregivers' program participation. Specifically, the funding eligibility for informal kinship caregivers would facilitate reach to more service populations in need, especially hard-to-reach populations, culturally-tailored program implementation and adaptations, and maintenance of the program fidelity. The preventive and supportive

functions of local KNPs were particularly pronounced for older caregivers who were racially and ethnically minoritized, geographically and socially excluded, stigmatized, or had significant intergenerational care needs. However, the funding logistics associated with Title IV-E—constrained by the rigorous evidence standards mandated by the Family First Prevention Services Act (e.g., requirements for specific durations and intervention dosages in research designs, despite the longitudinal support needs of informal kinship caregivers)—have impeded the inclusion of these at-risk populations in research. Consequently, they remain underrepresented and continue to face significant challenges in service accessibility, availability, and utilization (Wu, 2024).

Additionally, subgroup analyses showing positive outcomes for marginalized families are not considered in evidence ratings, disadvantaging programs that may be highly effective for communities of color. This also even further racial inequities in those at risk for child welfare system involvement (Burnson, 2021). Suggested actions include providing resources for programs serving marginalized and minoritized kinship families to conduct meaningful evaluations and subgroup analyses, fostering a more equitable, inclusive, and preventive service system. Future applications of effectiveness evidence should incorporate the lived experiences of program users and implementers (Tajima et al., 2022). Despite the perceived impact of KNPs for informal kinship caregivers, addressing identified implementation barriers and enhancing facilitators is crucial for their scale-up and sustainability of KNPs.

6. Limitations

Our study had several limitations. Given that the analysis relied on the secondary qualitative data prepared for program adaptation to explore an in-depth analysis of the pre-enhancement model of the local KNPs, our analysis is based on a study with a focus on the implementation dimension of the RE-AIM science model. The lived experts' perspectives

reflect the unique community settings and demographics of the study participants. The findings cannot be generalized, particularly to minoritized, ethnic populations who were not represented in the study.

Still, the findings were robust despite limited organizational-level perspectives on program adoption. Informal kinship caregivers, a hard-to-reach population due to their time availability and geographic constraints, were engaged at local support group sites before group sessions in both urban and rural areas. The rich perspectives provided by 50 informal kinship caregivers and navigators still offered valuable insights for implementation facilitators and barriers across the RE-AIM framework, as well as considerations for scale-up or adaptations in other similar contexts.

7. Conclusion

We conclude that to optimize the policy goal of promoting kinship care as a prevention measure for reducing child entry into formal foster care—as prioritized by the Family First Prevention Services Act—the funding requirements for evidence-based supportive services for kinship caregivers must be made more flexible. Despite kinship care being the predominant form of care for maltreated children in communities, it continues to face long standing disparities in program funding, benefit and services compared to formal foster care. The limitations of federal funding for state-level kinship care policies and programs exacerbate the structural barriers faced by informal kinship caregivers. To pursue care justice and the prevention efforts in FFPSA goals, addressing these disparities is essential to ensure equitable and sustained support for informal kinship caregivers and the children in their care. In addition, to optimize the implementation of supportive services through local KNPs, it is essential to prioritize race equity by ensuring culturally tailored approaches to outreach, implementation, and ongoing maintenance.

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PAPER 2 APPENDIX

Appendix 2.1

Navigator Focus Group Questions

(To begin after the demographic sheet has been distributed and all questions have been answered regarding that form.)

1. Describe the caregivers, children, and families currently being served by your Kinship Navigator program? What are the eligibility requirements for whom you serve?
    a. Has the population served changed over time? In what ways? Why do you think that happened?

2. What are the top three most frequent needs that Kinship Caregivers request from the Kinship Navigator Program? How are you able to help caregivers meet these needs?

3. How would you describe your kinship service model?
    a. What kinds of activities/services provided to kinship caregivers, children, and /or other family members? (e.g., birth parents, children who are biological/not kinship) through your kinship program?
    b. What are the most important components of your current project?
    c. What are your greatest challenges in serving kinship care families?
    d. What is missing in your current practice that you would add if you had additional resources (e.g., time, money, staff, training) to do so?

4. How have your service models and activities been expanded, enhanced, or changed over time? Why was the model changed?

5. How have your service models and activities been expanded, enhanced, or changed over time? Is your practice model scalable to other areas of the state? Why or why not?

6. In what ways is your current project models culturally competent? Have they been modified to fit any specific target populations? (i.e. Hispanic families, tribal families, etc.) if so, can you describe what those modifications are?

7. How is your agency tracking the families you serve currently? (e.g. by the type of referral you make)
    a. What does follow up look like to ensure families received services they were referred to?
    b. How long do you typically wait before you do a follow up with a family?

8. Who partners with you/your organization for your Kinship Program(s)? (child welfare agencies, family organizations, advisory group, ect.)

   a. How do these partners help you with the Kinship Program? How and to what extent does collaboration with these partners enhance the services you provide?
   b. Who is/are the most critical partners?
   c. How do you sustain/continue working with these partners? What are key strategies do you employ to develop and sustain these key partnerships?

9. If the Kinship Navigator Program was to go away how would this effect your caregivers, children, and families in your communities?

10. What barriers/obstacles did/do you experience implementing or delivering your KN services?

11. Do you currently track client satisfaction with services? If so, how and how often? Do you have any reports that would be helpful to share with us?

12. Approximately what percentage of your kinship care families have been referred to your program by a child welfare agency as a strategy to keep children in the home, either directly through Child Welfare staff or through the kinship caregivers who were encouraged to connect with their local Kinship Caregiver?

13. Approximately what percent of your families have come to the attention of the child welfare agency after receiving KN services? (may be challenging to get accurate data).

14. To what degree do children have permanency (define - may mean different things) and stability in their living situations with their caregivers (based on what - caregiver self-report)

15. To what degree do families who have received KN services have enhanced capacity to provide for their children's needs? Can you give an example?

16. Do you believe the KN program(s) supports children to remain safe in kinship caregiver's homes? Yes or No/ Why?

17. In the last year, have new policies and procedures been developed in relation to how the KN project has been implemented in your local area? Yes/No

18. Can you see your kinship practice model working in other areas of the state? Why or why not?

19. Do you have wait lists in your kinship programs (some may for the urgent need fund, have not hear for Kinship Navigator services) for caregivers because of capacity of your current program? If so, what is the average wait for families to receive services, such as urgent need funding?

20. To what degree do you believe KN's support children to remain safely relative homes whenever possible and appropriate? Approximately how many of your families have been referred to you by a child welfare agency as a strategy to keep children in the home? Approximately how percent of your families have come to the attention of the child welfare agency after receiving KN services?

The next phase of this research project involves recruiting kinship caregivers to participate in focus groups. Ideally, we would want to talk to both informal and formal families.

PAPER 2 APPENDIX

Table 1
Lived Expert Perspective on the Implementation of Local Kinship Navigator Programs

RE-AIM Categories (Definition) (Glasgow et al., 2019; Obi-Jeff et al., 2022)	**Deductive themes/ codes (frequency) Exemplar "Illustrative quote"**
Reach (R) (**"**The number, proportion of the intended audience, and participants' representativeness compared with the intended audience" at the individual-level**)**	**<u>Facilitator</u>** 1. **Word-of-Mouth** (16) "I actually heard about the kinship program through my sister, and she lives 300 miles away from me." (Caregiver, Thurston, speaker 4) 2. **Referral from Partner Organization** (14) "I heard about it through the Wise program at Catholic Community Services." (Caregiver, Thurston, speaker 7) 3. **Word-of-Mouth Referral through Support Group** (5) "I was in a similar situation, never been a parent before. Suddenly thrown into raising this troubled little boy. And I was grieving to a friend, who was a friend of another member here at the table. And she said "Well, I know my friends are going to a place that really helps." And so she, uh, gave me the name of it, the number of Family Education Support Services. And I called them, and they said "Tuesday night you can come along and join us." (Caregiver, Thurston, speaker 10) 4. **Self-Referral Through Informational Materials** (5) "And I just looked up and there was a flier on the wall. And I read that flier and I just felt like I had kind of an answer to my prayers or questions. What are we gonna do? And so contacted, uh, the agency and I think I talked to Lynn [navigator] first." (Caregiver, Thurston, speaker 12) **5. Low Barrier Intake** (5) "Well they made it extremely easy, they give you a very simple questionnaire. It wasn't like complicated, it wasn't like 900 pages, thank God." (Caregiver, Tricities, speaker 3) **<u>Barrier</u>** 1. **Inaccessibility as a Barrier** (14) "It's so hard to find. So, making the help like more accessible and not just more acceptable." (Caregiver, Pierce, speaker 5) "Sometimes they don't have transportation, so I say, "Is it any, any parks close to where you live, that we [navigators] can, we can go there [Family Team Decision Making Meeting involving navigators]." (Navigator, speaker 7)

	2. **Lack of Welfare Knowledge** (4) "No one even really knows about the Kinship Navigator, uh, or at least they don't know how far they are, uh, they go, what they offer. They don't know that." (Caregiver, Pierce, speaker 2) 3. **Limited Staffing and Service Coverage** (4) "I can go meet them somewhere if they have transportation issues. We have one navigator for five counties." (Navigator, speaker 8) "The ten thousand kinship caregivers in King County, had um, we had one person to field those calls, to go through thirty messages on her phone... to figure out what they need, to get those resources, to make those appointments" (Navigator, speaker 2) 4. **Digital Access Barriers** (3) "And, and what I quickly learned, is that a lot of the families we serve are kind of beyond the age of social media, although a lot of them are not. Some of them have internet access, some of them don't. Um, there's limits to, limits within my agency of kind of, what I can do with social media." (Navigator, speaker 6) "Then, rural communities and our access to internet and software." (Navigator, supervisor) 5. **Underserved Populations** (2) "Ours [service population] is predominantly white. Um, we also have a very large Russian population down in Vancouver but I have zero Russian clients... they take care of each other." (Navigator, speaker 8) "And uh, then we work with a lot of rural families, and those families are very difficult to help at all. Like in Skamania County, I have never helped anybody in that county. They just don't ask for help." (Navigator, speaker 8) "My biggest challenge is rural communities. Um, doing outreach, getting the response from them, cause, they don't typically trust governments, or people outside they're own community. So, that's my biggest challenges. Getting them to ask for and accept help that's there for them." (Navigator, speaker 8) 6. **Mistrust as a Barrier to Outreach** (1) "Um, doing outreach, getting the response from them, cause, they don't typically trust governments, or people outside they're own community. So, that's my biggest challenges. Getting them to ask for and accept help that's there for them." (Navigator, speaker 8)
Effectiveness (E) **(**"The degree to	**<u>Kinship Navigator Program Effectiveness</u>** 1. **Sharing Local Parenting Resource** (11)

which the intervention changes intervention outcomes and quality of life, including producing unintended or negative results" at the individual-level**)**	"She [navigator] also brings resources here like speakers, uh, uh, the commissioner for family law or something. Um, um, Monarch, um, Children's Catholic. Uh, she brought a financial aid, uh, lecturer one time talked about family education in finances. Public speakers like that." (Caregiver, Thurston, speaker 10) 2. **Financial Aid [for Basic Goods, Housing Stability]** (11) "And $160, $175 bucks a pop, boy, um, what a difference it makes for our fatigue at our [older, retired] ages." (Caregiver, Thurston, speaker 6) "Well it helped me out the first time I did, because I decided I had to stop my grandson and I was living with another lady, but I had to move out of her apartment because of a certain situation... so I didn't have money for like the deposit or the rent and they helped me get my apartment. So I've been in that same apartment (laughs) for almost five years." (Caregiver, Tricities, speaker 6) 3. **Behavioral Health [Addiction] Literacy** (10) "A whole new world now. Come in and identify with us the new drugs, what to look for. And I realized at that meeting that what I threw away from the laundry was heroin. What I had been smelling from my son's was meth. I mean there's, so just the education piece of it is huge." (Caregiver, Thurston, speaker 5) "Understanding addiction, understanding what they [children] might be going through helps us to be more compassionate in the way we talk to our children. Our, our children that we're raising." (Caregiver, Thurston, speaker 6) 4. **Legal Service Assistance (6)** **1) Court Navigation Support** (3) "Shelly [navigator] was in court when my wife and I were there. And, uh, that was comforting. And she had a relationship with the, uh, the judge." (Caregiver, Thurston, speaker 3) **2) Access to Legal Resources** (3) "My clients tend to need a lot of legal assistance. I've seen a lot of new clients that are just beginning the custody process and don't know if they need to hire a lawyer or what resources are available. Um, I know I mentioned legal assistance earlier but since my counterpart is in Yakima, they do have a rate, we call it, Options Clinic, that if a client were to call in you can just sign them up for this clinic" (Navigator, speaker 6) "She helped me find an adoption attorney, and she would email me back and ask if there was anything else we needed." (Caregiver, Thurston, speaker 6)

	5. **Destigmatizing and Non-Judgmental Service Approach** (6) **“**Speaker 5: And even calling them [navigators] initially I was kind of, not feeling good. A little bit ashamed almost. Speaker 3: But they make you feel so welcome. Speaker 5: Yeah. Absolutely. Speaker 3: And they don't look down on you. They don't judge you. Speaker 4: Never make you feel ashamed.” (Caregiver, Tricities) “At this point it's pretty much open to where we've even had, uh, the, the head of the Saint Pete's recovery center come in and talk to us and various people from the addiction side of it.” (Caregiver, Thurston, speaker 3) 6. **Assistance with Paperwork** (5) “Um, I need someone to help me fill out this paperwork. Like the paperwork for custody was unsafe. I mean it's like huge and I finally got that then and then and they said, "Oh, sorry, we only take one, one sided cases." And I'm like, "Well when you copy it off it doesn't come out one sided page, it comes out two.” (Caregiver, Pierce, speaker 9) 7. **Compassionate Care** (5) “That, that they don't have to be walking in my shoes to be able to, to say "You got a shitty situation raising those two god damn monsters. You should get rid of them and go back to your great retired life.” (Caregiver, Thurston, speaker 9) **<u>Peer Support Group Effectiveness</u>** “Support groups are really invaluable.” (Caregiver, Pierce, speaker 4) “They definitely referred me to a few things, including the support group that usually meets at this time, which is probably been my best resource, so far.”(Caregiver, Pierce, speaker 7) ***<u>Natural Support from Attending Peer Support Group</u>*** 1. **Universality of Kinship Caregiving [that Encompassed Shared Experiences, Emotions, Support, or Coping]** (29) “When I got here everyone understood my anger and my feeling of injustice. And there wasn't any place else where I felt safe to do that.” (Caregiver, Thurston, speaker 6) “Talking to someone who had been through it, who could look me in the eye and say 'I get it.' You'd never know by looking at Lynn [navigator] what she's been through with her own child. But when you share with her your experience, there is that authenticity of

	saying heart to heart, 'I understand what you're going through, here's a safe place." (Caregiver, Thurston, speaker 12) "If I would've had, in the state of mind I was in, come into this arena talking to somebody who'd never been through it before ... I would've felt that judgment. And I, and I would've backed away. And it would've been a miserable existence for my entire family." (Caregiver, Thurston, speaker 12) "It felt like a lifeline. Okay, I'm drowning now, but there's a light at the end of the tunnel." (Caregiver, Thurston, speaker 5) "I had to go through and work through the anger. And this was the only place where everybody got it, everybody got it." (Caregiver, Thurston, speaker 4) "It's good to get different opinions, and kind of see you know how other people that are in the same situation are doing this stuff." (Caregiver, Thurston, speaker 10) 2. **Emotional Support** (16) "This group has given me the, the very interesting useful resources as well as just the sanity. Like everybody else has mentioned, um, it, uh, true support. You know true meaning of the word support. Like the holding up a limb of a tree, you know? I was falling apart. And I can be completely supported emotionally during the worst of it." (Caregiver, Thurston, speaker 4) 3. **Gaining Age-Appropriate (Grand)Parenting Knowledge and Skills** (10) "And it [the support group] was just nice, and so you know because I'm always trying to figure out ...Was trying to figure out "Okay when am I gonna say what to the kids about where, where they're at?" And it was all of this age appropriate, we learned age appropriate. So age appropriate, when they're little ... When we come to this group for people that were, uh, raising other kids. And you're in a group with kids being raised by other people, and that's who those people were. I come to group I, I, I am better suited to deal with those lovely monsters when I, when I return home" (Caregiver, Thurston, speaker 9) 4. **Group Acceptance** (7) "You feel that judgment... So if I would've had, in the state of mind I was in, come into this arena talking to somebody who'd never been through it before... I would've felt that judgment. And I, and I would've backed away."(Caregiver, Thurston, speaker 9) "But coming to talk to someone who had been through it, who could

	look me in the eye and say ‘I get it.’ You’d never know by looking at Lynn what she’s been through with her own child. But when you share with her your experience, there is that authenticity of saying heart to heart, ‘I understand what you’re going through, here’s a safe place.’ Come and be with these same people.” (Caregiver, Thurston, speaker 12) 5. **Non-judgmental Space for Open Expression** (6) “I kind of made a funny remark to god one day, it's like "God, I told you I was never gonna ever be one of those grandparents that take care of my grandchild. Right? Well I'm doing the great grandchild, okay god hahaha, I got it!" Right? [crosstalk 00:21:14] you know? But to be able to come here and just pour myself out and not be judged it's awesome.” (Caregiver, Thurston, Speaker 5) “They [group members] don't look down on you. They don't judge you.” (Caregiver, Tricities, Speaker 3) “Never make you feel ashamed.” (Caregiver, Tricities, Speaker 4) 6. **Empowerment through Shared Purpose** (5) “We could've, we could've just done like everybody else and let them go to the foster system or whatever. So then I started to be able to look at my situation a little different, right? Now come to the group and then they say it's about the safety of the, it was pretty much the regular mantra that we had in here. That we're all in it for the safety of the kids. Throw that on top and then pretty soon I'm actually feeling pretty good about what I'm doing.” 7. **Resilience** (5) “I come to [support] group, I am better suited to deal with those lovely monsters when I return home.” (Caregiver, Thurston, speaker 9) “It has kept my sanity, (laughs) I mean when you're stressed over not being able to get clothes for your grandchildren, or paying your electric bill …” (Caregiver, Thurston, speaker 3) 8. **Vicarious resilience through shared lived experience** (2) “"Well this is what I went through with my addicted child. And this is" ... And it just, like you said, it felt like a life line. Okay I'm drowning now but there's a light at the end of the tunnel.” (Caregiver, Thurston, speaker 12) “Speaker 4: My husband doesn't like to come anymore because, like Allen was saying earlier he feels, um, that we have it much easier than so many people. And he kind of felt like [inaudible 00:38:09] for coming and acting like he was gonna complain when everybody else ... The issues are so strenuous, and so difficult. And we're doing pretty well our boy's doing pretty well. Um, and, and so he stopped

	coming. Speaker 4: But I always tell him the reason I come is because when we have a good week, it's good to have somebody there that can say "I read this good book, or you know you got a good ... You got a good response from something there. Um, he's improved on this or that, or something funny. Something good and funny that happens rather than something awful and funny." Speaker 4: Which is also welcome. But I tell him "It's just good to have ... I feel good about being able to, um, sometimes add success stories to how difficult things are." So it's okay- Speaker 10: That's a real important part of the group. <u>You know those stories that haven't come as so long. You know that is extremely important to have or we wouldn't have kept coming</u>." (Caregiver, Thurston) 9. **Peer Connection for Children in Kinship Care** (2) "I think one of the important with the, when the kids are coming to the kinship groups, um, that so many times they form friendships with the children who ... And I think that really helps them, because that way they know ... "Okay, I'm not alone in this." Because, uh, I remember when my granddaughter was young and coming to the group. And, um, it was really good to know that "Okay, we, it's okay. You know there are other people that have other children out here that I can be friends with that have, that understand why I'm living with my grandma" (Caregiver, Thurston, speaker 8)
Adoption (A) **(**"The number and proportion of settings and staff members who agree to initiate program or policy change and how representative they are of the intended audience regarding the location and the staff" at the staff and setting levels**)**	X
Implementation (I) **(**"The degree to which those settings and staff members deliver a program or apply policy as intended, including the adaptations made and the related costs" at the staff and	1. **Community Resource Referral** (13) "Our Kinship Navigator Program, we can serve anybody. There's no limit cause we're just referring them to resources in the community." (Navigator, speaker 8) "Referred me to [inaudible 00:12:48] and I bought a car seat through them for cheaper than like I could get from Walmart, and then she also told me about the legal aid stuff and she said she would put in a referral for that for me so that I can go and file for custody through the courts because I have power of attorney and all of that, and like

setting levels**)**	child support.” (Caregiver, Tricities, speaker 7) “There was nothing else that I need, they did let me know what there was available um and luckily I did not need the rest of those services, but they made me aware of if you need this or you're not willing to tell me something or there is something else that you know can help with, they let us know what they are.” (Caregiver, Tricites, speaker 4) “They provided, uh, parenting classes. And it was like, how perfect was that? You know a guy that doesn't know how to parent and a series, series of parenting classes was wonderful, absolutely wonderful.” (Caregiver, Thurston, caregiver 9) “I had, uh, SparksHope, helped me with a few things and then, um, she told me about this, cause I told her I was like looking to get my niece into counseling, but I can't because I don't have a signature from her grandparents.” (Caregiver, Pierce, caregiver 3) 2. **The Needs for Intergenerational Practice** (11) “We've been always doing inter-generational events because it helps us connect the roles of caregivers.” (Navigator, supervisor) **1) Intergenerational Family Dynamics** (3) “You're dealing with not only taking in the children. But you're dealing with their parents. On both sides of it. And then there's the split loyalty within the family over some people agree that you took, you have the children. And some don't. So it, it rocks your world in every single way.” (Caregiver, Thurston, speaker 6) **2) Legal and Custodial Challenges** (3) “Yeah, like my four-year-old grandson I just got, uh, a guardianship. I had to kidnap my son and take him across the street after, the day after Thanksgiving to be very, to be precise.” (Caregiver, Pierce, speaker 9) **3) Intergenerational Trauma and Resilience** 3-1) Intergenerational Trauma “He's [grandson] got anger issues cause he was with my mother who was the most abusive person in the world and, uh, left there and she told us on the phone, me and my sister that she was gonna throw him outside and call CPS, cause he's seen this child and there's something mentally wrong with him. So I went down there and I'm like, don't do that, I go there kidnap him and then [inaudible 00:10:52]. Um, with, with my son's permission, of course he was like, "Whatever." But he got kicked out of my mom's and just decided to leave my son there and I'm from my grandson and I'm like, "Why would you do that?" So she's borderline personality disorder, so it's like living with mom, so I don't know.” (Caregiver,

	Pierce, speaker 9) “They already know what kind of life they had... she has been out of prison... she won’t call... she might fall back into... her life... these guys have seen a lot so they know everything... we don't wanna talk to her...” (Caregiver, Tricities, speaker 8) “My addicted son has dealt with seven mental issues his whole life, and when he was smaller I worked on trying to get him services and came up against a lot of judgment, and a lot of ... Of just, I just had a copious amounts of mom guilt by the time he was giving me this baby to raise. ” (Caregiver, Thurston, speaker 12) 3-2) Intergenerational Resilience “I told Joe [grandson], ‘if your mom calls... just tell her, No mom, I love you but I'm not gonna go.” (Caregiver, Pierce, speaker 4) “So if I would've... come into this arena [support group] ... I would've backed away. And it would've been a miserable existence for my entire family.” (Caregiver, Thurston, speaker 12) **4) Child-Centered Decision Making** (2) “I told John [pseudonym], 'Your mom calls and she can barely will call and say, Guess what John? I got us a house, come on, we're going to be living together. Just tell her, No mom, I love you but I'm not gonna go.”(Caregiver, Pierce, speaker 4) 3. **Navigating Funding Constraints in Program Delivery** (9) **“**The ability to leverage funds so that we can fight single services, is something we're all striving for, but there is a challenge. Because, if they don't serve specific populations with some of our funding, and there are times where there's one kid whose CPS is involved and the others are not, or um, there um, one kid in the home might be over eighteen but they're developmentally delayed, so there are some conflicts there, we have to deal with funding to serve the family.” (Navigator, supervisor) 4. **Follow-Up** (9) “She helped me find an adoption attorney, and she would email me back and ask if there was anything else we needed.” (Caregiver, Thurston, speaker 6) “I go through my spreadsheet on Mondays, see who I had called, call 'em again, the next Monday I call 'em again. So I try to give them a chance, you know.” (Navigator, speaker 4) 5. **Community Engagement in Resource Mobilization or Service Delivery** (6) “I've noticed a greater, um, sense of community engagement. So,

	service clubs we've been rallying to support our families, adopting them for the holidays, asking them to speak about kinship care so a lot more community investment the more experience we have for partnership." (Navigator, supervisor) 6. **Service Coordination and Navigation** (3) "If they have energy assistance I go around and make an appointment, they don't have to call and make an appointment." (Navigator, speaker 4) 7. **Cultural/Linguistic Connection in Diverse Caregiver Populations** (3) "Well, I think it's true. If they see, um, speak a little bit of English, that, she knows that I'm there, and I do speak Spanish and she speaks Spanish, she'll try to talk to me first." (Navigator, Speaker 7) "Supervisor: We've seen a growing Samoan population. Speaker 8: Yeah, it's a Samoan population. Speaker 4: And I wanna clear up ours, you know, as interpreters. I use an interpreter to make sure, most everyone can speak and nothing we can communicate but I get, uh, my co- I was gonna say her name." (Navigator) 8. **Funding Constraints** (2) "Because, if they don't serve specific populations with some of our funding... we have to deal with funding to serve the family." (Navigator, supervisor)
Maintanence (M) **(**"The sustained effectiveness at the participant level and sustained (or adapted) delivery at the staff and setting levels"**)**	1. **Priorities in Resource-Constrained Roles** (1) "When I was emailing other navigators earlier in the Summer, whether or not people had a Facebook page, a lot of people talked about the maintenance that, that requires. And that, you know, when you're one or two navigators in a huge area, your priority's seeing clients, not posting things on the internet, so. It, while it's ideal, and probably really helpful, can we fit it into our days? We don't know." (Navigator, speaker 6) "I've just seen navigators wear so many hats, they're doing case management, they're doing event planning, they're doing, you know, they're answering the phone calls, there's so much that they're doing." (Navigator, speaker 2) **2. Challenges in Maintaining Program Fidelity** "I just don't think there's capacity to give follow up. I know that, like, another agency that I worked with, that had this big team. They would, they had to follow up with the client six months later, um, but I just don't think we have that capacity to do that." (Navigator, speaker 3)

PAPER THREE
HOW DOES SOLUTION-FOCUSED KINSHIP NAVIGATION IMPROVE CAREGIVING OUTCOMES? EVALUATING MECHANISMS OF EFFECT AMONG INFORMAL CAREGIVERS IN WASHINGTON STATE USING CAUSAL DIRECTED ACYCLIC GRAPHS (DAGS)

Abstract

Background and Purpose: Informal kinship caregivers often face significant caregiving stress, unmet needs, and limited access to resources. This study investigates the causal mechanisms underlying the efficacy of solution-focused kinship navigation case management in improving the well-being of informal kinship caregivers in Washington State, focusing on service utilization and stress reduction as mediators.

Methods: The study employed a cohort design within a natural experimental framework, utilizing directed acyclic graphs (DAGs) to identify causal pathways. Data were collected from informal kinship caregivers in intervention (n = 102) and comparison groups (n = 121), with propensity score matching used to minimize selection bias. DAG-informed regression models were applied to estimate the causal effects of the enhanced kinship navigation model on caregiver well-being, while mediators such as service utilization and stress reduction were analyzed. Sensitivity analyses were conducted to evaluate the robustness of mediation pathways.

Results: The intervention significantly improved caregiver well-being, with an average increase of 3.21 points six months after case closure (Average Treatment Effect = 3.21, $p < .001$; scale range = 0-28). Multiple mediators, including service utilization combined with reduced caregiver stress, jointly accounted for 50% of the total causal effect (Average Causal Mediated Effect = 1.60, $p < .001$). However, the amount of service utilization alone did not

significantly mediate this effect, indicating that stress reduction was the primary pathway driving improvements in caregiver well-being.

Conclusion and Implications: This study provides novel evidence of the positive causal impact of solution-focused kinship navigation case management on the well-being of informal kinship caregivers. While reducing caregiver stress associated with service utilization emerged as a significant pathway, the findings highlight the critical importance of addressing service accessibility and availability to enhance stress reduction and intervention effectiveness.

Keywords: caregiver well-being, community-based case management, evidence-based practice, Family First Prevention Services Act, prevention

1. Introduction

1.1. Informal Kinship Placement

Kinship placement (or kinship care) as a form of out-of-home placement (or foster care) can be categorized into three groups (Berrick, 2020; Berrick & Hernandez, 2016; Child Welfare Information Gateway, 2018: 2). First, there is informal/independent kinship care, where there is no involvement of child welfare placement resources. Such resources and placement activities include screening, supervision, training, or service access. Informal/independent kinship care operates outside the court system's rules and regulations. Second, formal kinship or foster care involves a state child welfare agency. The agency has legal custody and places a child with a kinship caregiver in a supervised foster care arrangement. This can be a voluntary placement agreement or kinship foster care under state-mandated kinship care. Third, voluntary kinship care, or kinship diversion under state-mediated care, occurs when a child welfare agency is involved. However, there is no state or tribal oversight and custody. Other definitions, such as 'formal' vs. 'informal' or 'public' vs. 'private' kinship caregivers, depending on the criteria of the kinship family's current involvement with and oversight of the child welfare system (i.e., open case) (Lee et al., 2016; Stein et al., 2014).

Most kinship care arrangements occur outside the foster care system and are administered by child welfare agencies. Primary caregivers in these living arrangements are not licensed foster parents and operate without the oversight of child welfare systems. In 2022, an estimated 2.2 to 2.5 million children were living with kinship caregivers , representing roughly 3% of the child population in the United States (Kids Count Data Center, 2023; U.S. Census Bureau, 2023). Grandparents account for approximately 59 to 63% of the household heads in these kinship-based, non-foster care arrangements (Radel et al., 2016; U.S. GAO, 2023). Recent US census data (2023) show that an estimated 7.7 million

grandparents lived with their grandchildren under 18. Among them, 2.5 million were responsible for their grandchildren, 39% of whom do not have the presence of a parent (U.S. Census Bureau, 2023).

Informal kinship caregivers may avoid engaging with child welfare systems such as child welfare (e.g., being supervised by child welfare agencies, having to follow child welfare regulations), juvenile probation, and other government entities to prevent children from being placed in a non-relative home (Nelson et al., 2010; Smith, 2018). They may refrain from becoming formal kinship caregivers through legal custody arrangements due to complexities, fear, and stress surrounding court procedures, state intervention, and child welfare oversight, especially in communities of color (Day, 2023; Denby, 2015; Goering, 2024; Pittman, 2023; Washington State Department of Social and Health Services, n.d.). For instance, courts, potential triggers of historical trauma, can deter AI/AN kinship caregivers' decisions to pursue formal kinship arrangements (Day et al., 2023).

1.2. Benefits and Challenges of Kinship Care

Kinship care benefits children in care by minimizing loss and trauma associated with: separation from their family of origin, neighborhood, or communities; preserving cultural identity; increasing placement stability (or fewer placement disruptions); improving behavioral and mental health outcomes; promoting sibling ties; and by more likely leading to guardianships (or legal permanency) compared to non-kinship care (Child Welfare Information Gateway, 2022; Winokur et al., 2014). Importantly, kinship care helps maintain known and trusted relationships between children and their caregivers. This strong relational connection, often referred to as bonding social capital, can promote greater possibilities for both relational and physical permanency (Berrick, 2020; Testa, Bruhn, & Helton, 2010).

However, kinship caregivers face a wide range of challenges while providing a safe and stable caring environment in the best interests of relative children. These include limited financial resources, needing assistance with legal resources related to adoption and custody, accessing housing, affordable child care and caregiver and child health-related service, obtaining information about education, lack of awareness of supportive services, navigating fragmented and inconsistent service systems across agencies and governments, among others (U.S. Government Accounting Office [GAO], 2020, 2023). Challenges facing informal kinship caregivers can be more profound as they are not eligible for many kinship service programs based on household income, status of being a custodian of the relative children, or involvement with child welfare systems (U.S. GAO, 2020, 2023; Lee at al., 2016).

Since informal kinship caregivers have no legal relationships with relative children, they generally contend with the greatest barriers to obtaining resources and services critical for children in their care (Pittman, 2023). Additionally, informal kinship caregivers' parenting challenges may be exacerbated by individual and interpersonal factors such as caregiver age-related health well-being, parenting stress, and social isolation (U.S. GAO, 2023). System factors even set barriers to informal kinship care such as lack of federal funding to support this population, strict eligibility for qualifying for licensure-based benefits such as Guardianship Assistance Program (GAP), states not accessing federal funds exclusively for evidence-based programs, federal inflexibility in evaluation requirements for states to qualify for Title IV-E reimbursements for kinship care services, among others. (U.S. GAO, 2020, 2023). Despite many challenges, most informal kinship caregivers perceived caregiving experiences as positive, noting relative children's safety and growth as their priority (Koh et al., 2022).

1.3. Benefit and Service Disparities *between* Formal and Informal Kinship Caregivers and *among* Informal Kinship Caregivers

Under the Family First Prevention Services Act (FFPSA), kinship care is expected to serve as a prevention strategy to keep children from entering formal foster care placements. Informal kinship caregivers represent the majority caregivers of maltreated children, but have long received limited formal support from the States. Benefit and service disparities exist between kinship caregivers and non-kinship caregivers, as well as among kinship caregivers (i.e. formal vs. informal). In the United States, informal kinship caregivers have historically received less and uneven formal support than their counterparts. Specifically, licensed formal kinship caregivers, engaged in licensed foster care or licensed subsidized guardianship, are eligible for the highest tier of benefits and services (Pittman, 2023). This includes the full board rate of foster care subsidy and universal child welfare services.

Following this, in descending order, are licensed subsidized guardianship arrangements and formal kinship caregivers in kinship adoption, which offer an adoption subsidy equivalent to the foster care subsidy but typically without post-permanency services. Next are voluntary placement agreements, which provide a foster care subsidy once approved, along with some unevenly administered services, and unlicensed formal kinship caregivers, who receive a subsidy higher than child-only TANF but lower than a foster care subsidy, also with unevenly administered services. Lastly, informal kinship caregivers in kinship diversion or private arrangements receive only limited benefits, such as child-only TANF, TANF family grants if income-eligible, SNAP, access to Kinship Navigator programs, and limited supportive services through the National Family Caregiver Support Program for caregivers over the age of 55 (Berrick & Boyd, 2016; Pittman, 2023). However, the greater level of benefits and services enjoyed by formal kinship caregivers is accompanied by greater

scrutiny by a government entity through processes such as home inspection, screening, home study/assessment, and often, regular monthly or yearly child welfare visits.

1.4. Limited Legislative Formal Support for Informal Kinship Caregivers: Child-Only TANF and KNP

Historically, state agencies have provided limited formal support to informal kinship caregivers. Existing legislative policies favor formal kinship care and have excluded informal kinship caregivers from accessing benefits and services beyond child-only TANF and KNPs. Nonparental child-only TANF is the primary form of formal social assistance for informal kinship caregivers. Kinship care households account for 41% of non-parental child-only TANF recipients, two-thirds of whom are grandparents (Golden & Hawkins, 2012). Generally, nonparental child-only TANF recipients are better off than other TANF counterparts because eligible caregivers are not subject to income limits (Goldsen & Hawkins, 2012). In Washington State, nonparental child-only TANF recipients make up 64% of all child-only TANF recipients, with approximately 51% being kinship caregivers and 10% being guardians or In Loco Parentis caregivers (e.g., fictive kin) (Washington State Department of Social & Health Services, 2023). It is also important to note that 60% of unaccompanied immigrant children are released to kin sponsors with citizenship. However, undocumented nonparental kin families are not eligible for child-only TANF and other public benefits (Goering & Lopez, 2024).

However, kinship caregivers lack knowledge of social assistance and face difficulties navigating through systems. Access to TANF grants remains notably limited, with only 12% of eligible kinship families receiving child-only grants nationwide (Mauldon, Speiglman, Sogar, & Stagner, 2012). Moreover, Casanueva and colleagues (2020) found that children diverted to informal kinship care experience poorer outcomes in areas such as immunizations,

dental care, Medicaid enrollment, TANF grants, and Supplemental Security Income (SSI) than children placed in public custody.

Outside of child-only TANF, KNP is the only formal support for informal kinship caregivers. The roles of kinship navigators are increasingly crucial for mitigating the benefit and service disparities facing informal kinship caregivers. KNPs help families negotiate complicated eligibility criteria, service gaps, and access barriers that exacerbate racial and class inequities (Gleeson, 2020). Contacting kinship navigators, informal kinship caregivers should receive information about TANF child-only grants, as well as any other benefits such as SNAP, childcare, Social Security, and supportive services (Testa, Hill & Ingram, 2020). For example, In a Washington State sample of informal kinship caregivers, Day and colleagues (2024) found that those participating in enhanced case management through the enhanced Kinship Navigator Programs (KNPs) were more likely to use kinship caregiver support groups and apply for TANF benefits compared to their counterparts (96% in the intervention group versus 88.5% in the comparison group).

KNPs under FFPSA can enhance TANF participation by providing informal kinship caregivers with accurate information and helping them apply for and receive TANF cash assistance (Testa, Hill & Ingram, 2020). Relatedly, as FFPSA calls for an evidence base of service programs, it is important to holistically embed locally contextualized, prevention-related needs into KNP through transferral pathways. For example, preventive legal services—such as free access to attorney representation—have been crucial in helping informal kinship caregivers stabilize placements and prevent children from entering state custody. Although FFPSA permits legal representation services in formal dependency cases, it does not recognize preventive legal services for informal kinship care as a standalone, evidence-based intervention (Brown et al., 2024).

1.5. Informal Kinship Caregivers' Unmet Needs (i.e. inadequate family resources), Social Support and Caregiver Well-Being

Kinship caregivers may unexpectedly take on the role of caring for relative children, and the associated responsibilities can lead to various hardships (U.S. GAO, 2023). For example, informal kinship care often excludes caregivers from receiving monthly foster care maintenance payments in most states and timely parenting support from formal service systems (Child Welfare Information Gateway, 2022; Lin, 2014). Kinship caregivers seek a variety of supports including financial, legal, parenting, food, housing assistance, health care, child care, respite care, school advocacy, counseling, mediating with birth parents, social support, and resources for special needs (Rodriguez-JenKins et al., 2021).The availability of these resources varies widely across jurisdictions, creating additional challenges for informal kinship caregivers—particularly when they must step in suddenly during a family crisis due to a primary caregiver's inability to provide care.

Two qualitative studies have explored parenting challenges among informal kinship caregivers (Koh et al., 2022; Lee et al., 2016). Both indicated that financial hardship was the major issue. Informal kinship caregivers also face challenges related to the medical, behavioral, and mental health needs of the children in their care. Other difficulties included managing child care, navigating service systems, and handling complex relationships with the children's birth parents. Lee et al. (2016) identified nine major unmet needs in informal kinship families: basic resources, leisure and self-care, child care, health care, social support, employment, financial needs, and concerns about the future.

Kinship caregivers sacrifice their own needs to care for their relative children, which can lead to long-term stress and health problems (U.S. GAO, 2023). Parenting stress is a robust predictor of expressed unmet family needs in various areas (Lee et al., 2016). Grandparents, in particular, have reported higher levels of parenting stress (Gleeson et al., 2016; Lee,

Clarkson-Hendrix, et al., 2016; Y. Xu et al., 2020). Informal kinship caregivers experience sources of stress due to limited financial resources to cover additional expenses in caring for relative children, concerns about the health and future of the children, interactions with the child's birth parents, and navigating various authorities such as social and health services, the legal system, and school administration (Lee, Clarkson-Hendrix, et al., 2016; Lin, 2017).

Several factors have been found to contribute to parenting stress among informal kinship caregivers, including material or economic hardship, unmet needs or a scarcity of resources, the overall health and well-being of the family, the emotional well-being of the caregiver, and the level of social support available (Gleeson et al., 2016; Lee, Clarkson-Hendrix, et al., 2016). Specifically, social support from networks of friends, family, and church members can increase the strength of family resources in alleviating parenting stress among informal kinship caregivers (Gleeson et al., 2016). In relative care families with more resources, informal kinship caregivers are more likely to benefit from social support and stronger family functioning (i.e., the overall capacity of kinship caregivers and children to maintain healthy family dynamics) in addressing parenting stress (Gleeson, Hsieh, & Cryer-Coupet, 2016). In other words, increasing family resources in informal kinship families can decrease parenting stress among informal kinship caregivers due to the availability of family competence and social support.

Parenting stress, coupled with social support, further indicates kinship caregivers' overall well-being. For example, greater parenting stress among custodial grandparents with low or moderate social support will predict their worsening depression in a year (Hayslip & Kaminski, 2005). However, the level of social support in a sample of mixed formal and informal kinship caregivers did not change the effect of parenting stress on well-being (Sharda et al., 2019). There remains a research gap in understanding the more specific role of social support in informal kinship caregivers' parenting stress and well-being.

1.6. Predictors of Kinship Caregivers' Service Need and Utilization in Response to Kinship Caregiving

Service utilization is a crucial factor in predicting the outcomes of a Kinship Navigator Program as this program intends to minimize unmet service needs of kinship care families. Considering the minimal utilization of supports and services alongside the high-level of needs within informal kinship care, it is crucial for navigator programs to actively generate demand to promote uptake and utilization (Gleeson, 2020).

A systematic narrative review by Coleman & Wu (2016) found that the service needs of kinship caregivers and children were high, the utilization of services was low. The predictors of kinship caregiver's service utilization included child behavioral problems, caregiver mental health, resource availability, provider characteristics, caregiver perceived need, and social support. Conversely, Coleman and Wu (2016) found inconsistent associations between other other hypothesized predictors of service utilization by kinship caregivers, such as involvement in the child welfare system, past experience with social and mental health services (e.g. mistrust in these systems), fear of child removal, personal resources, and accessibility of resources.

Additionally, kinship caregivers and children in their care may delay using and receiving specific services. For example, children in kinship care generally receive delayed mental health services compared to children in non-kinship care (Swanke et al., 2016), except those in voluntary kinship care with prior or current CPS open cases who had higher rates of care in mental health and special health care needs than counterparts (Stein et al., 2014). Aside from service utilization, kinship caregivers may also receive fewer supportive services from the systems compared to foster caregivers, including caregiver subsidies, parenting training, peer support, and respite care (Sakai et al., 2011). Despite delayed or fewer services in kinship

care, children in kinship care tend to fare better in behavioral and social skills problems than those in foster care (Sakai et al., 2011).

Recent studies have examined the unique service needs and utilization patterns of subgroups of ethnic kinship caregivers. For example, Gómez and colleagues (2024) found that Latinx kinship caregivers and non-Latinx kinship caregivers had similar caregiving challenges and unmet needs. However, Latinx kinship caregivers reported significantly higher needs for medical care and unique caregiving circumstances of children's biological parents being deported as the reason leading to kinship care, a higher number of minor-aged (under 18)relative children in care, and lower annual household income than non-Latinx kinship caregivers (Gómez et al., 2024). Day and colleagues (2023) found that obtaining housing, transportation, and working with their kinship children's school were the top cited challenges facing AI/AN kinship caregivers in tribal communities across Washington State. Pittman's ethnographic study (2023) found that, in African American communities of grandmothers, nonpunitive services (i.e., those aside from police and child welfare systems) to address grandchildren's needs were generally unavailable. However, African American grandmothers providing informal kinship care generally need to navigate through health, educational, social service, and legal systems within their extended social networks (Pittman, 2023). Legal services in obtaining legal or kinship guardianship or kinship custody will be needed when they transition from 'coerced mothering' to more 'motherhood' to obtain resources and services or prevent relative children from being removed from their care (Pittman, 2023).

Moreover, when considering sociodemographic characteristics (e.g., income level, region, reasons for placement) collectively, kinship caregivers' unmet needs and caregiving challenges differ distinctly. For instance, Schatter and colleagues (2023) found that, overall, financial challenges and assistance were the most frequently cited, regardless of the

caregiver's residential region and reasons for placement. Additionally, kinship caregivers' perceived unmet needs may vary based on their annual income level (Schatter et al., 2023). Those with an annual income below $20,000 (i.e., the poverty household cutoff) reported challenges related to finances, housing, and the physical health of the caregiver. In contrast, those with an annual income above $20,000 (i.e., non-impoverished kinship families) identified emotional health, caregivers' emotional well-being, respite care, delaying retirement, and both the caregiver and child's relationship with parents as their unmet needs (Schatter et al., 2023).

Furthermore, concerning the residence region (i.e., more rural or urban) of kinship caregivers, financial support was the most frequently cited service need regardless of the region (Schatter et al., 2023). Specifically, those from more rural regions expressed challenges related to finance, the emotional health of the child, and recreational activities. In contrast, those from an urban region reported more housing challenges and a need for transportation to non-urban areas, as well as child care (e.g., respite care) (Schatter et al., 2023). Finally, kinship caregivers once again identified financial assistance as the top need for those ineligible for support from the formal child welfare system (i.e., caring for reasons such as parental financial circumstances, substance use, incarceration, behavioral/mental health of the bio-parent, and homelessness) (Schatter et al., 2023). Conversely, those caring for relative children due to child abuse or neglect reported more challenges related to the child's emotional health and the need for child behavior intervention (Schatter et al., 2023).

1.7. Addressing Informal Kinship Caregivers' Unmet Needs and Related Challenges through Efficacious Social Support and Community-Based Case Management Services

Enhanced social support (Gleeson et al., 2016; Lin, 2017; Littlewood, 2015) and individualized case management (Littlewood, 2015; Pandey et al., 2019) have been identified as effective strategies in addressing parenting challenges faced by kinship caregivers,

including unmet family needs and parenting stress. Social support has been shown to buffer the effect of parenting stress on the behavioral health of relative children in informal kinship care (Lin, 2017). Additionally, social support can enhance family functioning, or family competence, in alleviating parenting stress among informal kinship caregivers (Gleeson et al., 2016).

Moreover, a combined intervention of social support and case management has been found to enhance overall family well-being in informal kinship families. In a randomized controlled trial by Pandey et al. (2019) involving formal and informal kinship caregivers living in poverty, a decline in concrete supports, family functioning, social supports, and parent-child attachment was observed during a one-year follow-up among those who received traditional child welfare services. In contrast, those who received a randomized intervention combining formal or informal social support and case management services (i.e., family support and case management in a community agency, in-home social support from peer navigators with previous grandparenting experiences in accessing available family resources, or online access to interdisciplinary team support from a community agency and peer navigators in accessing available family resources) demonstrated improvements in concrete supports, family functioning, social supports, and parent-child attachment during the one-year follow-up (Pandey et al., 2019).

While the previously mentioned program did not specify the role of kinship caregivers as formal or informal (Pandey et al., 2019), another enhanced kinship navigator program called the Kinship Services Network (KSN) (Littlewood, 2015), which targeted informal kinship caregivers, showed a similar outcome. This enhanced program utilized a community-based case management model through coordinated, expanded family support services accessible to informal kinship caregivers. The program results demonstrated a significant improvement in

their perceived social support and family resource needs over a five-year evaluation (Littlewood, 2015).

However, another program showed a contrasting intervention outcome (Feldman & Fertig, 2013). Informal kinship caregivers in an enhanced kinship navigator program that combined intervention components of social support and case management services within a six-month timeframe showed no significant improvements in perceived social support and alleviating parenting stress during a six-month follow-up (Feldman & Fertig, 2013). Nevertheless, it is important to note that the program did result in a remarkable reduction in identified needs among the caregivers (Feldman & Fertig, 2013). The researchers noted lower participation rates in support groups and higher attrition rates in the follow-up surveys were possible factors contributing to the lack of significant improvements in social support and parenting stress (Feldman & Fertig, 2013). More research needs to be done to identify the role of social support in the delivery of navigation models and its effect on associated outcomes.

2. Enhanced Kinship Navigator Programs in Washington State

2.1. Overview

The kinship navigator program was first piloted in two Washington State counties in 2004 (Yakima and King) with funding from Casey Family Programs. It was then expanded statewide in 2005 (Delaplane, Alber & Day, 2023; University of Washington School of Social Work, 2023). The initial pilot proved effective in helping kinship caregivers overcome system barriers to accessing child and family-serving resources. However, the program's effectiveness varied in terms of its helpfulness, professionalism, and knowledge as noted by the TriWest Group (2005). With funding from the Children’s Bureau for program enhancement and evaluation in 2018, and support from state-level infrastructure established by legislation to fund full-time navigators since 2007, as well as investment in the Tribal

KNP initiative in 2016, a collaborative effort was able to be launched to develop an enhanced, solution-focused case management model. This collaborative effort involved the Aging and Long-Term Support Administration (ALTSA), the Department of Children, Youth, and Families (DCYF), and Partners for Our Children at the School of Social Work in the University of Washington (Delaplane, Alber & Day, 2023; University of Washington School of Social Work, 2023).

Washington's kinship navigator program began to pilot "enhanced" kinship navigation services in May 2019 in seven counties (Pierce, Thurston, Yakima, Mason, Benton, Franklin, and Lewis), along with service as usual in twelve counties (i.e. Adams, Chelan, Clark, Cowlitz, Douglas, Grant, Klickitat, Lincoln, Okanogan, and Skamania) (Day et al., 2024). This pilot program aimed to enhance the case management services and outcomes for kinship caregivers receiving support from ALTSA and DCYF.

2.2. Essential Components of the Enhanced Kinship Navigator Program in Washington State

Essential components of the enhanced model were derived from data collected from focus groups between October 2018 and February 2019, engaging Washington State kinship caregivers, navigators, and agency stakeholders with experiences in the usual kinship navigator program, as well as reviewed by the KCOC (University of Washington School of Social Work, 2023). As a result of the data analysis, eight essential components inform the implementation of the enhanced model, including information and assistance/referral (I&A / I&R), needs assessment, case management services, urgent funds (i.e. Kinship Caregiver Support Program, KCSP), caregiver education, peer-to-peer support, program advertising, and program oversight (University of Washington School of Social Work, 2023) (See Appendix 3.1.).

Components of needs assessment, case management, and program oversight were newly put into the implementation of the enhanced model. Other components were enhanced, including program advertising, caregiver education, and peer-to-peer support. Still others were already implemented prior to piloting this enhanced model such as information and assistance/referral (I&A / I&R), and urgent funds (University of Washington School of Social Work, 2023).

2.3. Intervention Condition

The treatment group received the solution-focused case management service within a six-month timeframe (University of Washington School of Social Work, 2023). After a kinship caregiver is referred to the Kinship Navigator Program through advertising, outreach, or word-of-mouth, a kinship navigator works with the kinship caregiver during the service intake to determine the appropriate service pathway, ranging from level 1 to 3, about the intensity of services.

The pathway chosen depends on the service level required, which can include information and assistance/referral (I&A/I&R) (Level 1), case coordination (Level 2), or solution-focused case management (Level 3) (University of Washington School of Social Work, 2023). Some kinship caregivers who only require information support to gain awareness of accessing resources and services in their communities receive one-time information, assistance/referral, and/or a follow-up (Level 1) (University of Washington School of Social Work, 2023). Others enrolled in the Kinship Care Support Program (KCSP) with minimal needs are placed in the case coordination pathway (Level 2). Additionally, kinship caregivers who require more than five types of services from the inventory of kinship services are placed in the case management pathway (Level 3) (University of Washington School of Social Work, 2023).

The inventory of kinship services includes kinship navigator, Spanish-speaking kinship navigator, support group/children's activities, legal clinic program, kinship closet, health promotion class, kinship collaboration, parenting class, Kinship Caregivers Support Program (KCSP), kinship newsletter, and kinship website (University of Washington School of Social Work, 2023). More than half of the navigators have past or current family caregiving experience. Seven navigators in intervention sites were trained to deliver the solution-focused model and tracked with a fidelity tool at defined intervention time points (See Appendix 3.2.). Two of seven navigators were able to provide the services in Spanish to monolingual service users in intervention sites (Day et al., 2024).

During intake, kinship caregivers in the case management pathway (Level 3) receive information about the intake process, an overview of the needs assessment, and goal setting using a SMART principle (i.e. Specific, Measurable, Achievable, Realistic, Timely goal setting), and Solution-Focused Case Management with points of intervention and follow-up (University of Washington School of Social Work, 2023). To ensure implementation fidelity, kinship navigators complete the fidelity form after intakes and at each follow-up (Day et al., 2024). The fidelity form lists all necessary interventions at each time point (University of Washington School of Social Work, 2023) (See Appendix 3.2.).

2.4. A Theory of Change: Needs Assessment and Solution-Focused Case Management

The enhanced kinship navigator program utilized solution-focused case management to address the prioritized needs of kinship caregivers within specific timeframes, as informed by the results of the needs assessment.

2.4.1. Needs Assessment.

Kinship navigators conducted an evidence-informed Kinship Caregiver Needs Assessment with caregivers and families involved in the program (University of Washington School of Social Work, 2023). The assessment tool was adapted from the Washington Family

Needs Scale and the 31-item Family Needs Scale developed by Don Cohon of the Edgewood Institute for the Study of Community-Based Services (University of Washington School of Social Work, 2023; WA DSHS, 2004). The Needs Assessment utilizes a six-point scale to measure the frequency of twenty-three areas of family needs over the past three months, ranging from 'never' (=1) to 'always' (=6). Additionally, it captures the utilization status for each need (yes or no) (Fowler et al., 2023b). To ensure the cultural relevance of the Needs Assessment Scale, it was translated into Spanish and adapted for tribal communities (University of Washington School of Social Work, 2023).

The needs assessment tool was utilized to identify the specific needs of kinship families for raising kinship children and to prioritize the most significant needs. Kinship navigators collaborated with caregivers and families to determine the top three services they wished to learn about or receive in response to their (grand)parenting challenges. These top three to five needs then informed the establishment of one to three SMART goals to be achieved within six months of case management (University of Washington School of Social Work, 2023). Based on the results of prioritized needs from the baseline needs assessment, kinship navigators provided relevant information and support and made referrals to help caregivers and families attain their desired SMART goals in meeting these needs (University of Washington School of Social Work, 2023).

2.4.2. Solution-Focused Case Management.

Kinship navigators delivered solution-focused case management to kinship caregivers placed in the case management pathway in intervention sites. Specifically, within a six-month timeframe, navigators scheduled an intake, completed a baseline needs assessment, and set SMART goals (i.e., specific, measurable, attainable, relevant, and time-bound) based on prioritized needs in collaboration with kinship caregivers. They also conducted 3-month and

6-month follow-ups after the intake and a 6-month follow-up after case closure (University of Washington, School of Social Work et al., 2023).

Kinship navigators focused on SMART goals to assess caregivers' progress in meeting their family needs at three months and to identify the support families needed before the six-month case closure (University of Washington School of Social Work, 2023). Although the intervention was designed to last for up to six months, kinship caregivers could opt-out at three months if they had achieved their goals. The design of a maximum of six months was decided based on the average practice history reported by the Washington kinship navigators, proven implementation of solution-focused case management in as little as three months (Day et al., 2024), as well as the requirement of a clear dosage of time set by the Title IV-E Clearinghouse. If goals need to be met after six months, these caregivers will be transitioned to the information and assistance pathway (University of Washington, School of Social Work et al., 2023). Kinship navigators implemented the intervention in English or Spanish. They were recruited by ALTSA, trained on this model, and followed program fidelity (University of Washington School of Social Work, 2023).

Aligned with the Andersen Model of Service Utilization, the logic model of enhanced kinship navigation hypothesizes that the well-being of kinship caregivers will be improved after the navigation intervention of solution-focused case management. While service utilization plays a pivotal role in the implementation outcomes, empirical knowledge about its causal mechanism remains little studied especially in the population of informal kinship caregivers.

3. Study Procedure

The Washington State Kinship Navigator Program serves both formal and informal kinship caregivers. The operation under ALTSA instead of the public child welfare entity

allows accessibility to non-child welfare service populations (Day et al., 2024). More informal kinship caregivers were involved in the program (Day et al., 2024), which reflected that, in a nationally representative survey, over 88% of kinship caregivers are informal providing non-public kinship care (Bramlett et al., 2017).

Counties that provided more than five services out of the service inventory were potentially pilot sites that implemented the enhanced case management model. Intervention group of these pilot sites included Pierce, Thurston, Yakima, Mason, Benton, Franklin, and Lewis counties (Day et al., 2024). This ensured these countries had such a capacity to provide coordinated services to kinship caregivers attending the enhanced model (University of Washington School of Social Work, 2023). Comparison counties implemented the usual kinship navigator program which lacked the time-framed interventions such as needs assessment, solution-focused case management, and SMART goals. This group of comparison sites included Adams, Chelan, Clark, Cowlitz, Douglas, Grant, Klickitat, Lincoln, Okanogan, Skamania, Snohomish, and Wahkiakum counties (Day et al., 2024).

A navigator is responsible for explaining the aims of data collection to kinship caregivers placed in the case management pathway in seven pilot counties (University of Washington School of Social Work, 2023) (See Appendix 3.2.). At intake, a kinship navigator collects demographic data of the kinship caregiver and relative children from the kinship caregiver. At follow-ups, a kinship navigator collects follow-up surveys on the child's demographics, health and educational well-being, and the kinship caregiver's well-being. At case close, the case closure form was assessed for both the intervention and comparison groups regarding their caregiving circumstances, child placement stability, child's educational and health well-being, and kinship caregiver well-being. Finally, a paper Kinship Navigator Program Satisfaction Survey was sent to kinship caregivers in both intervention and comparison groups to assess their service utilization, satisfaction, and open-ended qualitative feedback,

administered six months after the end of service receipt or case closure. Caregivers could complete the survey via a linked QR code on their own or phone interview conducted by an ALTSA staff either in English or Spanish. Caregivers received a $15 gift card as compensation for their time (University of Washington School of Social Work, 2022; University of Washington School of Social Work, 2023). The data collection of the satisfaction survey was approved by the Washington State Institutional Review Board (University of Washington School of Social Work, 2023).

4. Purpose

Existing evidence about the effectiveness of KNPs centers on child outcomes involved in formal kinship placements. In contrast, its efficacy on kinship caregiver well-being remains little assessed and tested. In particular, research has already shown that increasing family resources in kinship families can positively impact the well-being of mixed formal and informal kinship caregivers as a result of the availability of family resources and social support (Gleeson et al., 2016; Lee, Clarkson-Hendrix, et al., 2016).

The present study aims to identify the mechanism of change in driving the well-being of informal kinship caregivers after the intervention of the enhanced KNP model in Washington State. Specifically, the present study has the following three research aims.

Aim 1: Examine the causal effect of the enhanced kinship navigation through solution-focused case management (X_1) on the well-being of informal kinship caregivers (Y_1) 6 months post-case closure after the intervention.

Aim 2: Identify the mechanism of change in informal kinship caregiver well-being. Specifically, we examined whether 1) kinship service utilization partially mediates the effect of kinship navigation intervention on caregiver well-being, and 2) kinship service utilization and stress reduction jointly partially mediates the effect of kinship navigation intervention on caregiver well-being.

5. Method

5.1. Study Design

The present observational cohort study (i.e. non-randomized study) employed a natural experiment design (i.e. quasi-experimental design) to test causal inferences related to the exposure to enhanced kinship navigation interventions, as well as the mediating mechanisms of such exposure. A natural experiment is a non-interventional design (i.e. non-experimental manipulation) in which the investigator does not intervene in the assignment of participants into the intervention group and comparison group (Arnold et al., 2019). The intervention assignment was not randomized, as counties in the treatment group were selected based on their resource capacity to deliver a range of services for kinship caregivers.

In light of this non-randomization, we employed directed acyclic graphs (DAGs) to guide our causal inference analysis. A DAG is a non-parametric graphical representation of hypothesized cause-and-effect relationships among variables, which can include an exposure (i.e., the treatment variable, X), covariates (e.g., confounders that influence both treatment and outcome), and outcomes (i.e., the outcome variable, Y). The graph is “directed” because its edges are arrows showing the direction of causation, and it is “acyclic” because no sequence of arrows loops back to create a cycle, ensuring that a variable cannot cause itself directly or indirectly. By mapping these relationships and identifying potential confounders via d-separation, DAGs help us select appropriate conditioning sets to obtain unbiased estimates of causal effects. The following graph (See Figure 3.1.) visualizes the directed acyclic graph (DAG) of variables operative in the effect of childhood physical abuse on opioid dependence.

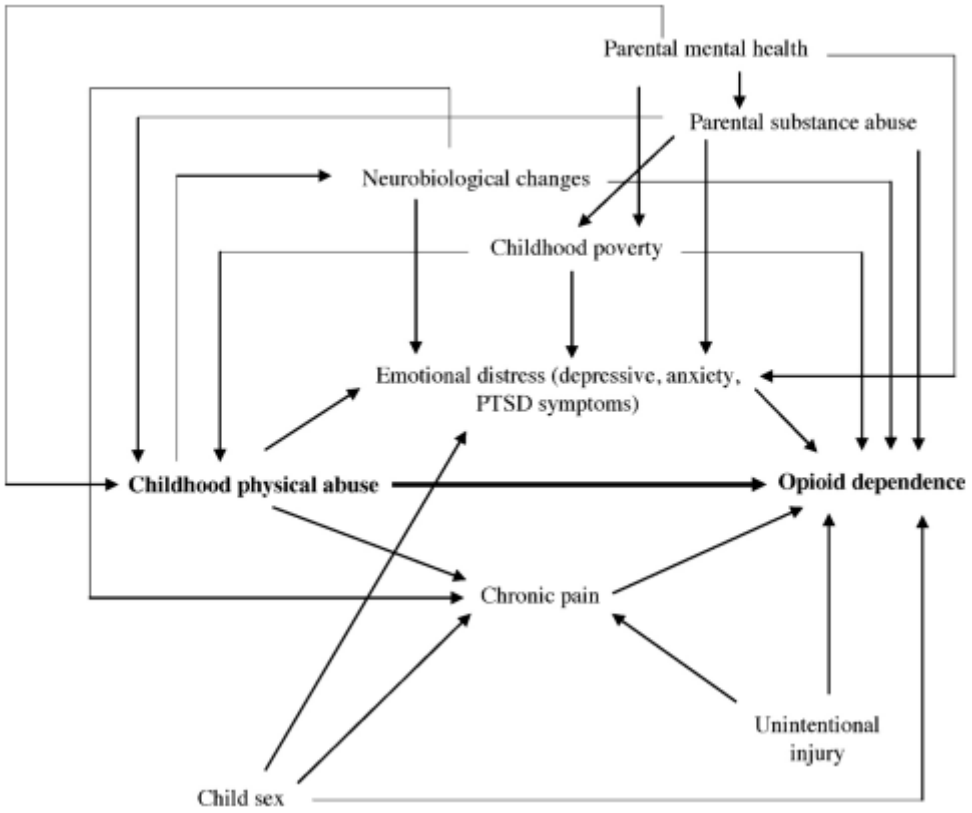

Figure 3.1. Exemplary directed acyclic graph: Variables operative in the effect of childhood physical abuse on opioid dependence (Austin, 2019, p 82).

Note. This figure presents a comprehensive DAG illustrating the relationship between childhood physical abuse (exposure) and opioid dependence (outcome), including key confounders (parental mental health, parental substance abuse, childhood poverty), mediators (neurobiological changes, emotional distress, chronic pain), and a collider (chronic pain, which also serves as a confounded mediator).

DAGs are particularly useful for analyzing a non-randomized observational study such as the present evaluation of the enhanced kinship navigation intervention. They provide a systematic, transparent framework for representing the data-generating process, clarifying causal assumptions, and addressing d-separation by blocking back-door paths (i.e. no feedback loop) that would otherwise introduce confounding. A back-door path is any non-causal path that connects the exposure (treatment) variable *X* to the outcome variable *Y*. Y starting with an arrow pointing into X. Such paths typically arise through confounders and must be “blocked” (e.g., by conditioning on the right variables) to obtain an unbiased causal

effect estimate. When constructing a DAG, all variables relevant to the hypothesized causal effect are included on the DAGs, including measured and unmeasured variables in the data, in order to highlight potential back-door pathways that can't be blocked in the data analysis (Austin et al., 2019). The node "U" represents the unmeasured or unknown common causes on the DAG pathways. Variables are chosen based prior empirical knowledge, theoretical expectations, and subject matter expertise (Austin et al., 2019; Lewis, 2015; Rose et al., 2024).

We produced a control group comparable to the treatment group to permit inference about the effect of treatment vs. control that minimized the effect of selection bias. Specifically, we used the weighting measure of propensity score matching (PSM) based on the characteristics of observation data. Propensity score matching is a statistical technique used to create a matched sample in observational studies by pairing individuals with similar propensity scores, which estimate the probability of assignment to a particular treatment condition based on observed characteristics, to reduce selection bias and approximate random assignment (Stuart, 2010).

PSM is a widely implemented matching technique used to evaluate observational data from natural experiment designs. The PSM can be used to estimate the aggregated treatment effect, such as the average treatment effect (ATE), the average treatment effect for the treated (ATT), and the average treatment effect for the untreated (ATU), without bias (Mcbee, 2023).

After matching, we incorporated the appropriate conditioning sets identified from our DAG to adjust for potential confounders when estimating the causal effect of kinship navigation intervention and service utilization on caregiver well-being.We used a combination of propensity score matching and a DAG-based approach to adjust for confounding, with the goal of estimating what would have happened to similar caregivers who did not receive the enhanced kinship navigation intervention. This allowed us to better

isolate the impact of service use on caregiver well-being. In theory, we can identify a causal effect by comparing outcomes between two groups that are similar in terms of the measured confounding factors. These similar groups are known as "conditionally exchangeable"(or exchangeable conditional on these factors)—meaning their outcomes can be fairly compared because they are alike based on the relevant factors (Arnold et al., 2019). Then, we employed linear regression analyses that included the matched sample and controlled for the variables (i.e. confounders) determined by our DAG to be necessary for blocking back-door paths.

Finally, we included these mediators in our analysis framework to explore the causal mechanism of kinship navigation intervention on caregiver well-being through significant mediators. Through this approach, we aim to provide a clearer causal interpretation of how the intervention may influence caregiver outcomes—both directly and indirectly.

5.2. Selection Criteria and Setting

A subsample of informal kinship caregivers from both the intervention and comparison groups (see Figure 3.1.) was extracted for data analysis. In the intervention group, eligible caregivers were those who received solution-focused case management and completed the Kinship Navigator Program Satisfaction follow-up six months after case closure. Case closure was defined as the date of the last contact from navigators. Similarly, a subsample of informal kinship caregivers from the comparison group (i.e., those receiving usual services without solution-focused case management) was also extracted for data analysis.

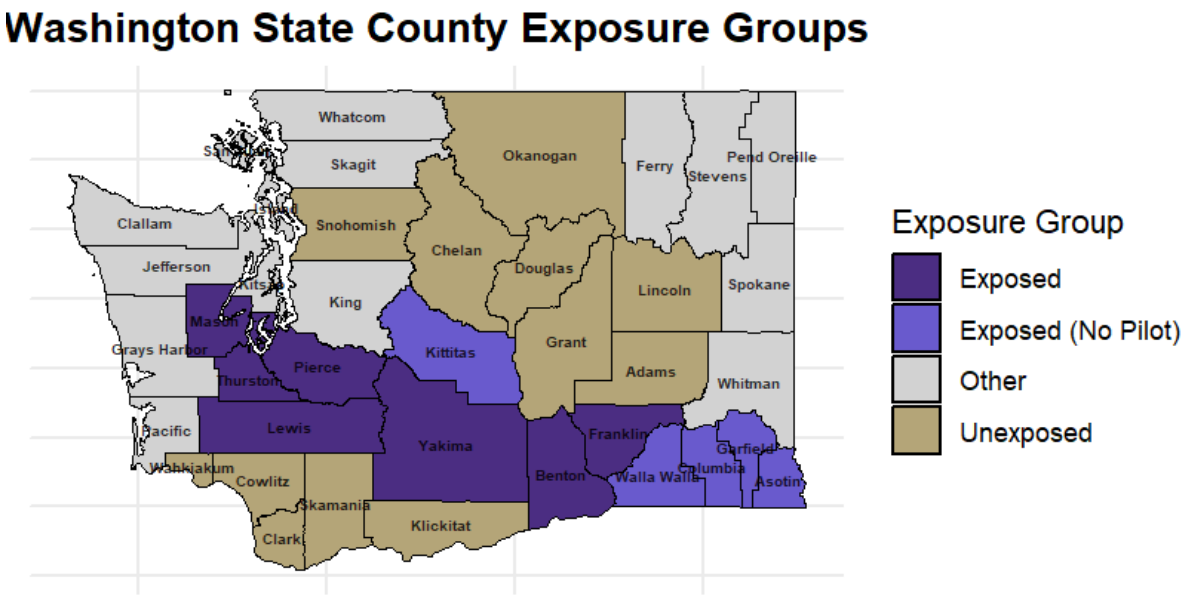

Figure 3.2. Map of Intervention/Exposed Group and Comparison/Unexposed Group counties. *Note*. County boundary data retrieved from the U.S. Census Bureau's TIGER/Line Shapefiles (2023). Map generated using R (ggplot2 and sf packages).

To ensure intervention implementation fidelity and internal validity, navigators attended pre-service training on solution-focused case management and submitted fidelity forms documenting implementation components for each service user, following the protocol guidelines outlined in the Washington State Kinship Training Manual (Washington State Department of Social and Health Services Aging and Long-Term Support Administration, 2024). To enhance external validity, we included only pilot intervention groups and the comparison group, both of which began implementation at the same time, and excluded intervention sites without a pilot exposure (i.e., Asotin, Columbia, Garfield, Kittitas, and Walla Walla). Most participant counties in both groups are rural. Twenty-nine percent of the intervention counties are urban: Benton, Pierce, and Thurston. Seventeen percent of comparison counties are urban: Clark and Snohomish (Washington State Department of Health, 2016).

A Subsample of informal kinship caregivers in both groups was included in the analysis. 96% of participants in the intervention group (N = 126) were informal kinship caregivers (n =

121) (Day et al., 2024). The Subsample of informal kinship caregivers in the comparison group (N = 252) was abstracted and matched to the intervention group using propensity score matching techniques.

5.3. Directed Acyclic Graphs (DAGs) of the Present Study

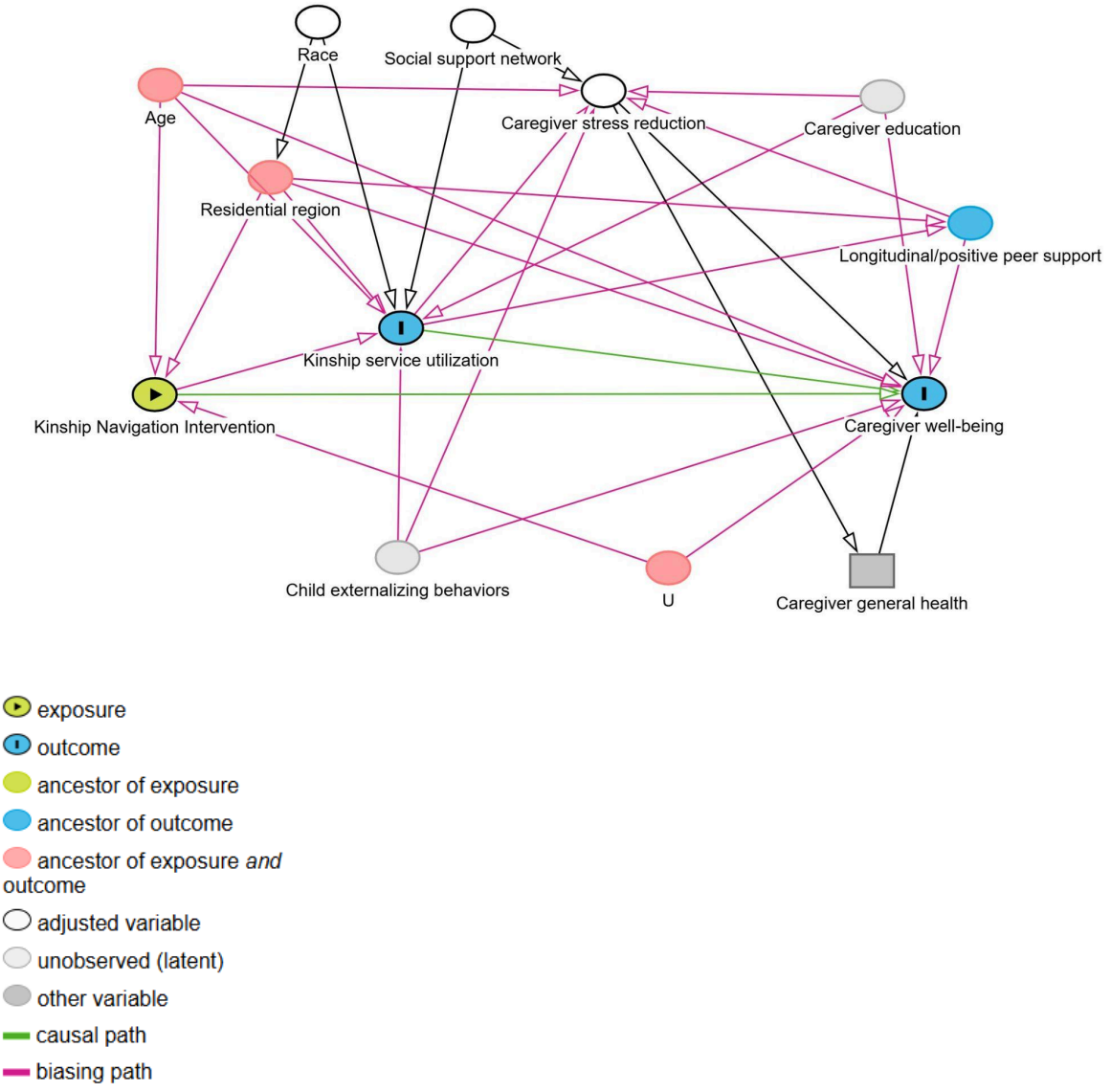

Figure 3.3. Directed acyclic graph (DAG) of variables operative in the effect of kinship navigation intervention on caregiver well-being.

Note. This causal diagram illustrates assumptions and hypotheses about the data-driven and -generating process. Age and residential region represent the minimal adjustment of covariates provided sufficient adjustment to isolate the total direct effect of kinship navigation on caregiver well-being (See Appendix 3.4.). The outcome was caregiver well-being. In this model, we assumed two mediating effects: 1) kinship service utilization

partially mediates the effect of kinship navigation intervention on caregiver well-being. 2) kinship service utilization and stress reduction jointly partially mediates the effect of service utilization on caregiver well-being. The diagram was plotted using DAGitty (https://www.dagitty.net/).

5.4. Measures

Caregiver well-being (i.e. outcome, respondent variable, Y-variable) (Mcbee, 2023). Cross-sectional, observational data drawn from the Kinship Navigator Program Satisfaction Survey administered to the intervention group and the comparison group (N = 378) was completed. The same survey was administered to both groups at six months post-case closure. The Kinship Navigator Program Satisfaction Survey consists of scales of demographics, service utilization, caregiver life satisfaction, service satisfaction, and open-ended qualitative feedback. These scales were developed, adapted, and validated with the participation of stakeholders. They meet an acceptable level of reliability and face validity through the review of the community-engaged Kinship Caregiver Oversight Committee (KCOC). The kinship caregiver well-being consists of four Likert-scale items (1 = "Strongly disagree" to 7 = "Strongly agree") in the Kinship Navigator Satisfaction Survey (i.e. questions 27-30). The well-being subscale was developed from the Family Empowerment Questionnaire (Day et al., 2023; Man et al., 2003). The reliability of kinship caregiver well-being scales is acceptable (Cronbach's alpha = 0.85) (University of Washington School of Social Work et al., 2023). The estimate of caregiver well-being is the sum of their response on these four 7-point items: "I now feel that I am better able to cope with caring for the child I am raising than before I became involved in kinship care services and activities." (range: 1-7), "I do not feel as stressed out as I was before participating in kinship care services and activities."(range: 1-7), "I feel as if my overall health and sense of well-being have improved since participating in kinship care services and activities." (range 1-7), and "I am enjoying life more now since participating in kinship care services and activities." (range 1-7).

Solution-focused case management of kinship navigation. (i.e. exposure, treatment, X-variable, focal variable) (Mcbee, 2023). The estimate of treatment is binary (0= Service as usual, where kinship navigation is provided without the solution-focused case management intervention. 1= Receipt of the kinship navigation intervention based on solution-focused case management.)

Covariates of interest. Covariate adjustment was used to achieve ignorability conditional on an appropriate set of background variables before the intervention to avoid biased causal estimates (Mcbee, 2023). Covariates of interest associated with exposure status or outcome between two groups were selected: age, race (BIPOC or White), region (rural or urban county), and SNAP status (yes or no).

Confounders of interest. In non-randomized studies, confounders may influence the estimation of the front-door causal effect between the exposure and the outcome. This results in an unblocked path between X and Y. To estimate causal relationships among a set of variables, we adjust for confounding effect given correlation equates to causal effect and confounding effect (Alber, 2022). In the present study, a confounder (variable) is defined as nodes on the path linking treatment engagement (i.e. treatment group vs. control group) and the potential outcomes, which creates an unblocked path. Adjusting for confounders assists in producing unbiased estimates of the exposure's (e.g., treatment's) effect(Mcbee, 2023). Their coefficients in a regression model have no causal interpretation. To eliminate the confounding effect by conditioning on a sufficient set of primary confounders that effectively block unblocked back-door paths linking X and Y leaves us just the causal relationship between the exposure and outcome (Alber, 2022; Mcbee, 2023). Such regression adjustment is a general-purpose and robust approach to improve efficiency in estimating average treatment effect (ATE) (Ye & Guo, 2024). The number of confounders doesn’t matter. An effective

adjustment set of right rather than wrong confounder variables won't cause overcontrol bias in the regression model (McBee, 2023). There is more than one exposure, defined by research hypotheses, in a DAG diagram. To estimate the causal effect of each exposure, it requires to condition on a different set of confounders (Mcbee, 2023).

With reference to Paper 1 of the dissertation study which suggested the predictors of kinship navigation engagement in Washington State, the systemic review on the factors in kinship caregivers' service utilization (Coleman & Wu, 2016), and the other umbrella review on the kinship caregiver well-being (Bentum et al., 2024), we included our potential confounders on the causal diagram: sociodemographics (e.g. age, race, residential region, education), caregiver stress reduction, child externalizing behaviors, general health, longitudinal/positive peer support, and social support network.

Then, we identified primary confounders that potentially effectively remove the unlocked back-door paths that link kinship navigation intervention and caregiver well-being in the present study. We identified primary confounders based on Digitale (2021), Austin (2024) and their colleagues' strategies: removing arrows originating from the exposure, identifying any open (i.e., unblocked) confounding (i.e., backdoor) pathways from the exposure to the outcome, and identifying all minimally sufficient adjustment sets. When selecting a final set of minimally sufficient set of confounders, preferable set should be excluding mediators, colliders, unmeasured or poorly measured variables, and those with large missing data (Austin et al., 2019; Digitale et al., 2021; Roherer, 2018). As a result, the primary confounders that block the frontdoor and backdoor pathways that link kinship navigation intervention and caregiver well-being are caregiver age and residential region (See Appendix 3.4.).

Notably, caregiver education and child externalizing behaviors do not directly unlock the causal path between exposure and outcome. Both confounders are colliders. Controlling for

colliders will induce spurious association and biasing the causal effect of exposure and outcome (Austin et al., 2019; Lewis, 2015; Rose et al., 2024). So, both confounders are not included in the minimally sufficient set. Kinship navigation intervention, caregiver stress reduction, and longitudinal peer support are mediators. These three confounders are also excluded from the minimally sufficient set because controlling for mediators will bias the estimation of causal effect (Digitale et al., 2021). Education, longitudinal/positive peer support, and general health are competing exposures, which are not necessary to condition on to obtain unbiased causal estimates (Mcbee, 2023).

Service utilization. Service utilization was assessed based on the count of services used after the intervention. Participants were asked whether they had used any of the 23 nominal service items (Yes/No/Not Applicable) listed in the Kinship Navigator Satisfaction Survey (items 1–23) following the navigation intervention provided as usual or with solution-focused case management. These 23 supportive service areas include accessing financial support, financial literacy, housing, durable goods, food security, public assistance, transportation, school-related supports, medical care for self, medical care for the kinship child, respite care, referral to aging services, emotional support for caregiver self, emotional support for the kinship child, professional behavioral health/counseling for the kinship child, professional behavioral health/counseling for the caregiver self, kinship care support groups, training for kinship caregivers, language services, legal services and information, in-home family services, 1st other services, and 2nd other services. Navigators implemented the Needs Assessment, which utilizes a six-point scale to measure the frequency of twenty-three areas of family needs over the past three months, ranging from 'never' to 'always.' Additionally, it captures the status of utilization for each need (Fowler et al., 2023b). The assessment tool was adapted from the Washington Family Needs Scale and the 31-item Family Needs Scale developed by Don Cohon of the Edgewood Institute for the Study of Community-Based

Services (University of Washington School of Social Work, 2023; WA DSHS, 2004). To ensure cultural relevance, the Needs Assessment Scale was translated into Spanish and adapted for tribal communities (University of Washington School of Social Work, 2023).

Residential region of the informal kinship placement is a nominal variable, categorized as either rurality (=1, reference group) or urbanity, based on classifications from the Washington State Department of Health (2016).

Caregiver stress reduction was assessed using a 7-point scale item from the Kinship Satisfaction Survey: "I do not feel as stressed out as I was before participating in kinship care services and activities" (1 = strongly disagree, 7 = strongly agree). We were unable to assess participants' parenting stress prior to the intervention using well-validated scales due to a participatory decision made with the Washington State Kinship Caregiver Oversight Committee (KCOC). Representatives of kinship caregivers expressed concerns about negative rhetoric associated with such measures and stated that parenting stress was "the last thing they cared about." This confounder is also treated as a descendant of the ancestor exposure, kinship navigation intervention.

U represents an unmeasured confounder, a variable that affects both the exposure (*X*) and the outcome (*Y*), creating a spurious association and potentially biasing causal effect estimates if not addressed. In a regression model that includes primary confounders (covariates) to eliminate confounding effects, *U* refers to covariates that are unmeasured or not included in the model but do not bias the causal direction or effects (McBee, 2023).

5.5. Statistical Analysis

Descriptive statistics were generated using appropriate tests to delineate intervention participants' sociodemographic characteristics and outcomes. Categorical variables were reported as percentages in frequency rates. A X^2 test was performed on the group difference in categorical variables. Continuous variables were presented with their averages, 25th and 75th

percentiles. A Mann-Whitney nonparametric statistical test, a non-parametric test on independent group difference, was performed to compare the difference in ordinal or continuous variables between the two groups. All statistical analyses were conducted using R version 4.5.0 (R Core Team, 2025).

Then, we used a PSM approach to create two comparable groups of the intervention and comparison group. The propensity-matched subsample from the comparison group was created using the R function fullmatch controlling for covariates of age, race, region, and SNAP status (Rosenbaum & Rosenbaum 2010). To achieve a statistical power of 0.80 with a moderate effect size (Cohen's d >= 0.5), a minimum sample size of 103 participants was desired (using G*Power 3.1.5). To assess the balance of covariates after matching, we calculated the absolute standardized mean difference (SMD) between the two groups of the intervention group and comparison group for the prematching and postmatching covariate adjustment (Yoshida et al., 2017). Conventionally, SMD values of <0.2 are desirable for a sufficient adjustment.

Next, we fitted DAG-informed linear regression modeling to estimate the average treatment effect (ATE) of the intervention/exposure respectively (Arnold et al., 2019). First, to estimate the independent causal effect of kinship navigation intervention (X_1) on caregiver well-being (Y_1) (i.e. the paths kinship navigation intervention→ caregiver well-being, kinship navigation intervention→ service utilization → caregiver well-being), we had to block all non-causal paths and causal paths linking kinship navigation intervention and caregiver well-being (Alber, 2022; Austin et al., 2019; Digitale et al., 2021). These paths include

(1) causal paths (See Figure 3.3.):

   (a) kinship navigation intervention → $kinship\ service\ utilization$ → caregiver well-being

(b) kinship navigation intervention

$\rightarrow$ *kinship service utilization* $\rightarrow$ *longitudinal peer support* $\rightarrow$ caregiver well-being

(c) kinship navigation intervention

$\rightarrow$ *kinship service utilization* $\rightarrow$ *caregiver stress reduction* $\rightarrow$ caregiver well-being

(2) non-causal paths (See Figure 3.3.):

(a) kinship navigation intervention $\leftarrow$ *age* $\rightarrow$ caregiver well-being (i.e. block by controlling for age)

(b) kinship navigation intervention $\leftarrow$ *residential region* $\rightarrow$ caregiver well-being (block by controlling for the residential region)

(c) kinship navigation intervention

$\rightarrow$ *kinship service utilization* $\leftarrow$ *caregiver education* $\rightarrow$ caregiver well-being (block by controlling for the residential education)

(d) kinship navigation intervention

$\rightarrow$ *kinship service utilization* $\leftarrow$ *child externalizing behaviors* $\rightarrow$ caregiver well-being (block by controlling for child externalizing behaviors).

Identified primary confounders in the minimally sufficient set that block the causal pathways are age and residential region (See Appendix 3.4.). As seen in Equation 1, we can condition on caregiver age and residential region in the regression model to examine the causal effect of the kinship navigation intervention on caregiver well-being. That is, we are fitting:

$$Caregiver\ Wellbeing_i = \beta_0 + \beta_1(Kinship\ Navigation\ Intervention_i) + \beta_2(Age_i) + \beta_3\ (Region_i) + \epsilon_i,$$

where β_1 represents the average treatment effect (ATE).

Service utilization is the mediator for the relation between kinship navigation intervention and caregiver well-being. Mediators and colliders cannot be controlled in a DAGs diagram. Conditioning on either a mediator or collider biases estimated causal effects when there is a confounding relationship between the mediator and outcome, known as collider bias (Austin et al., 2019; Digitale et al., 2021; Roherer, 2018). Controlling for the colliders of caregiver education and child externalizing child behaviors will open new backdoor pathway, so both confounders can't be included in the minimally sufficient set.

Additionally, we tested the mediating effect of kinship service utilization, and the mediating effect of kinship service utilization and its sequential mediator caregiver stress reduction on the hypothesized causality between kinship navigation intervention and caregiver well-being. Two sets of mediated causal pathways were analyzed. First, we tested the natural direct effect (i.e. average direct effect, effect unexplained by the mediator) of kinship navigation intervention on caregiver well-being, and the indirect effect (i.e. average causal mediation effect) of the mediator kinship service utilization: kinship navigation intervention → $kinship\ service\ utilization$ → caregiver well-being. Next, we investigated the indirect effect of joint role (i.e. indirect effect) of kinship service utilization and caregiver stress reduction in the effect of kinship navigation intervention on caregiver well-being: kinship navigation intervention → *kinship service utilization* → *caregiver stress reduction* → caregiver well-being. By comparing the total effect, direct effect and indirect of both mediating pathways, we identified the key mediator at play. We fitted two mediation pathways as follows:

Mediation pathway 1: kinship navigation intervention → $kinship\ service\ utilization$ → caregiver well-being

(a) $Kinship\ Service\ Utilization_i = \beta_{0M_1} + \beta_{1M_1}(Kinship\ Navigation\ Intervention_i) + \beta_{2\,M_1}(Age_i) + \beta_{3M_1}(Region_i) + \epsilon_{M_1 i}$; hence,

$(b)\ Caregiver\ Wellbeing_i = \beta_{0Y} + \beta_{1Y}(Kinship\ Service\ Utilization_i) + \beta_{2Y}($ $Kinship\ Navigation\ Intervention_i) + \beta_{3Y}\ (Age_i) + \beta_{4Y}(Region_i) + \epsilon_i$, where β_{1Y} represents the effect of kinship service utilization (mediator 1) on caregiver well-being, β_{2Y} represents the direct effect of the intervention on caregiver well-being.

Mediation pathway 2: kinship navigation intervention → *kinship service utilization* → *caregiver stress reduction* → caregiver well-being

$Caregiver\ Stress\ Reduction_i = \beta_{0\,M_2} + \beta_{1\,M_2}$ (Kinship Service Utilization) + $\beta_{2\,M_2}($ $Kinship\ Navigation\ Intervention_i) + \beta_{3\,M_2}(Age_i) + \beta_{4\,M_2}(Region_i) + \epsilon_{M_2 i}$; hence,

$Caregiver\ Wellbeing_i = \beta_{0Y} + \beta_{1Y}(Caregiver\ Stress\ Reduction_i) +$ $\beta_{2Y}(Kinship\ Service\ Utilization_i) + \beta_{3Y}\ (Kinship\ Navigation\ Intervention_i) + \beta_{4Y}$ $(Age_i) + \beta_{5Y}(Region_i) + \epsilon_{Yi}$, where β_{1Y} represents the effect of caregiver stress reduction (mediator 2) on caregiver well-being, β_{2Y} represents the residual effect of kinship service utilization on caregiver wellbeing, and β_{3Y} represents the effect of kinship navigation intervention on caregiver well-being.

To estimate the effects of two mediating pathways—single and multiple mediators—in the causal diagram, we employed regression-based mediation analysis. Regression-based approaches provide greater flexibility, accommodating interactions among mediators and uncertainty in their ordering (VanderWeele, 2016). This method addresses the limitations of informal approaches, such as assessing mediators individually and summing their effects,

which can fail when mediators interact with one another or jointly influence the outcome. Mediation analysis was conducted using the “mediation” package in R. Nonparametric Bootstrap with 1,000 resamples was used to estimate confidence intervals for the indirect effects (ACME, ADE) and Total Effects of intervention through the hypothesized mediators. Both models included relevant covariates (Age and Region) as confounders.

6. Result

6.1. Participant Characteristic of Two Comparable Groups

Table 3.1 presents the baseline characteristics of sociodemographics and adjustment covariates for the intervention and comparison groups, along with their adjusted standardized mean differences in these variables after propensity score matching. Overall, 223 informal kinship caregivers were included in the study ($n_{intervention}$= 102; $n_{comparison}$= 121) following the adjustment weighting procedure. The intervention group had a median age of 59 years (IQR: 51.8–65.2), while the comparison group had a median age of 62 years (IQR: 53–63.5), with an adjusted SMD of 0.10, indicating a small and acceptable imbalance.

Regarding race, 34% of the intervention group identified as BIPOC and 66% as White, compared to 29% BIPOC and 71% White in the comparison group, with an adjusted SMD of 0.05, demonstrating minimal imbalance. In terms of residential region, 57.8% of the intervention group lived in rural areas and 42.2% in urban areas, compared to 54.5% rural and 45.5% urban in the comparison group, with an adjusted SMD of 0.006, indicating excellent balance. For socioeconomic status, measured by SNAP benefit receipt, 33.3% of the intervention group and 38.8% of the comparison group received SNAP benefits, resulting in an adjusted SMD of 0.052, reflecting a small and acceptable imbalance. All covariates exhibited adjusted SMDs below the 0.2 threshold, confirming that the adjustment process achieved adequate balance between the groups and reduced potential confounding effects.

Table 3.1

Baseline characteristics of matching weights

Variable	Intervention group (n = 102)	Comparison group (n = 121)	Adjusted absolute SMD	p-value	Total (N = 223)
Age (years), median (IQR)	59 (51.8-65.2)	62 (53-63.5)	0.10	0.449	60.5 (52.4-63.9)
Race, n(%)			0.05	0.504	
BIPOC	35(34%)	35 (29%)			70 (31%)
White	68 (66%)	86 (71%)			154 (69%)
Region, n(%)			0.006	0.720	
Rurality	59 (57.8)	66 (54.5)			121(56.1)
Urbanity	43 (42.2)	55 (45.5)			102 (43.9)
SNAP status			0.052	0.476	
Yes	34 (33.3)	47 (38.8)			81 (36.3)
No	68 (66.7)	74 (61.2)			142 (63.7)

Additionally, the Love's plot (See Figure 3.4) illustrates the balance of covariates before and after adjustment. For age, the SMD reduced from 0.17 to 0.10, indicating improved but small residual imbalance. Race (BIPOC vs. White) showed a reduction from 0.14 to 0.05, reflecting near-perfect balance. Region (Rurality vs. Urbanity) demonstrated a significant improvement, with the SMD dropping from 0.31 to 0.006, achieving excellent balance. Similarly, SNAP status decreased from 0.24 to 0.052, indicating acceptable balance. All adjusted SMDs were below the 0.2 threshold, confirming the adjustment process effectively minimized potential confounding.

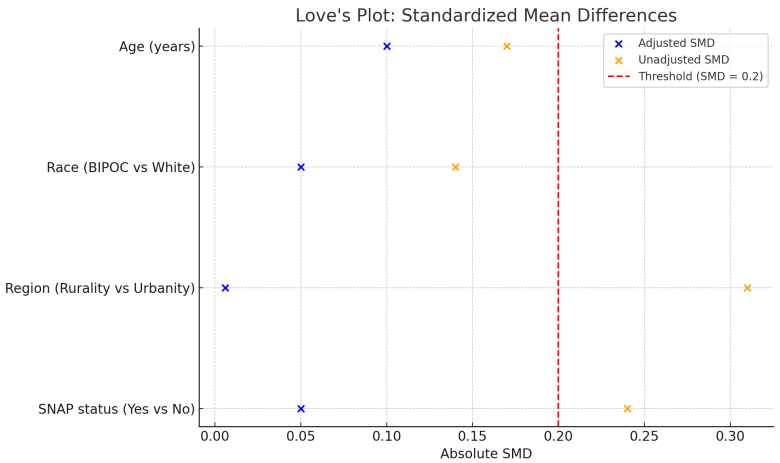

Figure 3.4 Love's plot for the adjustment covariates

6.2. Potential Outcomes 6 Months after Case Closure

Table 3.2 displays the outcomes of the two groups six months after case closure. Following the intervention of kinship navigation, informal kinship caregivers in both groups exhibited significant differences in some areas of service utilization, caregiver well-being, and stress reduction.

Service Utilization. The intervention group showed notable differences compared to the comparison group in several aspects of service utilization. Specifically, the intervention group demonstrated significantly higher access to *professional behavioral/mental health services for the caregiver* (OR = 7.93, 95% CI: 1.73–36.34, p = .005), indicating a larger effect size. Similarly, access to *language services* was significantly more frequent in the intervention group (OR = 8.84, 95% CI: 1.07–73.12, p =.040). On the other hand, while the intervention group reported higher utilization of *in-home family services and training for kin caregivers*, these differences did not reach statistical significance (p =.131 and p = 1.000, respectively). Overall, these findings suggest that the intervention positively influenced access to specific supports for kinship caregivers.

Caregiver Well-Being. Regarding caregiver well-being, the intervention group reported significantly better outcomes in the following domains: "Not feel as stressed out as before" (mean = 5.99, SD = 1.11 vs. 5.26, SD = 1.57; $p < 0.01$, larger effect size of 0.62). “I feel enjoying my life more now” (mean = 5.86, SD= 0.95 vs. 4.95, SD = 1.39; $p < 0.0001$, moderate to larger effect size of 0.76) And, overall well-being total score (mean = 23.79, SD = 3.58 vs. 20.83, SD = 4.85; $p < 0.0001$, moderate to larger effect size of 0.70). These results indicate a substantial positive impact of the intervention on caregivers’ ability to cope with stress and their overall well-being. Notably, the larger effect sizes highlight meaningful improvements in both subjective and objective measures of caregiver support.

Stress Reduction. The intervention group demonstrated significantly increased levels of feeling less stressed out (mean = 5.99, SD = 1.11) compared to the comparison group (mean = 5.26, SD = 1.57; $p < 0.01$, larger effect size of 0.62). This finding reinforces the intervention's efficacy in alleviating stress among caregivers.

Table 3.2
Outcomes

Variable	**Intervention group (n = 102)**	**Comparison group (n = 121)**	**Total (N = 223)**	**p value**	**Effect Size Odds Ratio [95% CI]**
Service utilization, n (%)					
Financial support for necessities	16 (15.69)	23 (19.01)	39 (17.49)	0.636	0.79 [0.39-1.60]
Financial education support	2 (1.96)	1 (0.83)	3 (1.35)	0.881	2.40 [0.21-26.86]
Support in housing stability	3 (2.94)	7 (5.79)	10 (4.48)	0.485	0.49 [0.12-1.96]
Obtaining durable goods	32 (31.37)	36 (29.75)	68 (30.49)	0.908	1.08 [0.61-1.91]
Food security	31 (30.39)	32 (26.45)	63 (28.25)	0.615	1.21 [0.68-2.18]
Getting Public assistance	9 (8.82)	6 (4.96)	15 (6.73)	0.379	1.85 [0.64-5.40]
Help with transportation	4 (3.92)	2 (1.65)	6 (2.69)	0.530	2.43 [0.44-13.54]
School related support	13 (12.75)	10 (8.26)	23 (10.31)	0.382	1.62 [0.68-3.87]
Accessing medical care for caregiver	1 (0.98)	0 (0.00)	1 (0.45)	0.932	inf
Accessing medical care for kin child	1 (0.98)	0 (0.00)	1 (0.45)	0.932	inf
Accessing dental care for caregiver	2 (1.96)	1 (0.83)	3 (1.35)	0.881	2.40 [0.21-26.86]
Accessing dental care for kin child	3 (2.94)	1 (0.83)	4 (1.79)	0.497	3.64 [0.37-35.51]
Child care support	5 (4.90)	4 (3.31)	9 (4.04)	0.793	1.51 [0.39-5.77]
Respite care	6 (5.88)	4 (3.31)	10 (4.48)	0.548	1.83 [0.50-6.67]
Referral to Aging or Disability Services	0 (0.00)	8 (6.61)	8 (3.59)	0.022*	0.00
Emotional support for caregiver	20 (19.61)	23 (19.01)	43 (19.28)	1.000	1.04 [0.53-2.03]
Someone to talk to about the kin child	23 (22.55)	23 (19.01)	46 (20.63)	0.628	1.24 [0.65-2.38]
Professional behavioral/mental health for the kin child	19 (18.63)	17 (14.05)	36 (16.14)	0.458	1.40 [0.68-2.86]
Professional behavioral/mental health for the caregiver	10 (9.80)	3 (2.48)	13 (5.83)	0.041*	4.28 [1.14-15.98]
Kinship care support groups	12 (11.76)	2 (1.65)	14 (6.28)	0.005**	7.93 [1.73-36.34]
Training for kin caregivers	3 (2.94)	4 (3.31)	7 (3.14)	1.000	0.89 [0.19-4.06]
Language services	7 (6.86)	1 (0.83)	8 (3.59)	0.040*	8.84 [1.07-73.12]
Access to legal services and information	16 (15.69)	10 (8.26)	26 (11.66)	0.131	2.07 [0.89-4.78]
In-home family services	3 (2.94)	2 (1.65)	5 (2.24)	0.847	1.80 [0.30-11.01]
Caregiver stress reduction, average (SD)	5.99 (1.11)	5.26 (1.57)	5.60 (1.43)	<0.01**	0.62 (moderate)
Caregiver well-being, average (SD)					
…feel better able to cope with caring for the child…	6.10 (0.96)	5.50 (1.47)	5.78 (1.30)	0.12	0.60 (moderate)
…not feel as stressed out as before…	5.99 (1.11)	5.26 (1.57)	5.60 (1.43)	<0.01**	0.62 (moderate)
…overall health and sense of well-being have improved…	5.72 (1.23)	4.97 (1.50)	5.35 (1.44)	0.62	0.55 (moderate)
…feel enjoying my life more now…	5.86 (0.95)	4.95 (1.39)	5.46 (1.28)	<0.0001****	0.76 (moderate to large)
Overall well-being, total score (SD)	23.79 (3.58)	20.83 (4.85)	22.18 (4.56)	< .000001****	0.70 (moderate to large)

*p ≤ .05, **p ≤ .01, ***p ≤ .001; ****p ≤ .0001

6.3. Exposure/Treatment Effect

The DAG-informed regression analysis and mediation analysis demonstrated the causal effect of the kinship navigation intervention and its underlying mechanism. In the main effect model (See Table 3.3), kinship navigation intervention increased informal kinship caregiver's well-being by an average of 3.20 points ($p < 0.001$) across all age and region groups. The average treatment effect (ATE) is 3.209. Among those who actually received the intervention, caregiver well-being increased by an average of 3.46 points ($p < 0.001$). The average treatment effect on the treated (ATT) is 3.46. This highlights the direct causal impact of the intervention on the treated population. The ATT Model explains a greater level of variance in caregiver well-being of 14.82% ($p < 0.0001$) than the ATE Model of 13.06% ($p < 0.0001$), adjusted for age and region. The slightly larger ATT estimate indicates a better model fit for those who actually received it.

Given that the solution-focused case management model is highly dependent on service accessibility and availability within the residential region of informal kinship caregivers, we investigated whether regional disparities in service access and availability influence the causality between kinship navigation and caregiver well-being (see Table 3.4). At baseline, rural caregivers exhibited caregiver well-being scores that were 1.94 points higher than those of urban caregivers ($p < 0.05$), independent of intervention participation. However, analysis of the interaction term suggests that the intervention may be slightly less effective in rural regions ($4.54 - 1.87 = 2.67$) compared to urban regions (4.54). Specifically, the intervention's effect on caregiver well-being was 1.87 points lower for rural caregivers compared to urban caregivers, though this difference was not statistically significant ($p = 0.149$). These findings imply that while the intervention's effectiveness may vary by region, there is insufficient evidence to confirm a statistically significant regional disparity in its impact.

Table 3.3

Main Effect Models for Kinship Navigation Intervention on Caregiver Well-Being

Model		Estimate	Std. Error	t value	p-value
Average Treatment Effect Model (ATE)	Intercept	20.593	0.415	49.620	< 0.001***
	Kinship Navigation Intervention (Intervention vs Control)	3.209	0.589	5.449	< 0.001***
	Age	-0.027	0.029	-0.918	0.360
	Region (Rural vs. Urban) Reference: Rural	1.006	0.652	1.542	0.124
	Model Fit	R^2= 0.1306	Adj. R^2= 0.1187	F = 10.92	< 0.0001****
Average Treatment Effect for on the Treated Model (ATT)	Intercept	21.934	1.771	12.384	< 0.001***
	Kinship Navigation Intervention	3.464	0.599	5.780	< 0.001***
	Age	-0.039	0.030	-1.309	0.192
	Region (Rural vs. Urban) Reference: Rural	1.134	0.613	1.851	0.066
	Model Fit	R^2= 0.1481	Adj. R^2= 0.1364	F = 12.63	< 0.0001****

Note. 1. The ATE model estimates the Average Treatment Effect for the entire population (N = 223), while the ATT model estimates the Average Treatment Effect on the Treated. Weights were derived using propensity scores adjusted for Age and Region.
2. p* < 0.05, p** < 0.01, p*** < 0.001, p**** < 0.0001

Table 3.4

Main Effect Model for Kinship Navigation Intervention on Caregiver Well-Being with Interaction Term

	Estimate	Std. Error	t value	p-value
Intercept	20.72	1.80	11.48	< 0.001***
Kinship Navigation Intervention	4.54	1.09	4.17	< 0.001***
Region (Rural vs. Urban) Reference: Rural	1.94	0.91	2.12	0.035*
Age	-0.026	0.029	-0.90	0.371

Intervention * Region Interaction	-1.87	1.29	-1.45	0.149
Model Fit	R^2= 0.1389	Adj. R^2= 0.1231	F = 6.17	< 0.0001****

Note. p* < 0.05, p** < 0.01, p*** < 0.001, p**** < 0.0001

6.4. Mediation Analysis of the Causal Effect of Kinship Navigation on Caregiver Well-Being

Following our analyses of treatment effects, we then investigated the mechanisms underlying the causal effect of the kinship navigation intervention on caregiver well-being. Mediation analyses provided strong evidence for both direct and indirect pathways contributing to this effect. Two mediating pathways were examined: one involving kinship service utilization alone and the other involving kinship service utilization combined with caregiver stress reduction. The analyses revealed that kinship service utilization alone is not a significant pathway. However, when kinship service utilization was combined with caregiver stress reduction as sequential mediators (accounting for the residual effect of kinship service utilization), the combined pathway significantly mediated the causal effect of the kinship navigation intervention on caregiver well-being.

Table 3.5 presents the causal mechanisms of the kinship navigation intervention on caregiver well-being, with a focus on the pathway through kinship service utilization. The mediation analysis revealed that kinship service utilization did not demonstrate a significant indirect effect on caregiver well-being (ACME = 0.0319, p = 0.556). This finding indicates that the intervention's impact on caregiver well-being was not mediated through increased service utilization alone. In contrast, the direct effect of the kinship navigation intervention (Average Direct Effect [ADE] = 1.547, p = 0.004) and the total effect combining the intervention and kinship service utilization (Total Effect = 1.5795, p = 0.002) had significant positive impacts on caregiver well-being. Notably, only 2.02% of the total effect was

insignificantly mediated through kinship service utilization, underscoring that the direct effect of the kinship navigation intervention primarily drove the observed improvements in caregiver well-being. However, sensitivity analysis (See Appendix 3.5) on this mediating pathway showed that the ACME was not robust to unmeasured confounding, as a small correlation between residuals ($\rho = 0.1$) could nullify the mediation effect. This suggests that the insignificant mediation pathway may be influenced by unmeasured confounders.

Table 3.5
Mediation Modeling 1: Direct and Indirect Effects of Kinship Navigation Intervention via Kinship Service Utilization on Caregiver Well-Being

Parameter	Estimate [95% CI]	p-value
Average Causal Mediation Effect (ACME): Kinship Service Utilization	0.0319 [-0.0588-0.16]	0.556
Average Direct Effect (ADE): Kinship Navigation Intervention	1.5476 [0.5993-2.52]	0.004**
Total Effect: Kinship Navigation Intervention + Kinship Service Utilization	1.5795 [0.6356 -2.56]	0.002**
Portion Mediated by Kinship Service Utilization	2.02% [-3.61%-13.0%]	0.558

Note. 1. Mediation Modeling 1(Mediating Pathway 1: Kinship Navigation Intervention → Kinship Service Utilization → Caregiver Wellbeing) : Total direct effect of kinship navigation intervention on caregiver well-being and the indirect effect of kinship service utilization alone.
2. p* < 0.05, p** < 0.01, p*** < 0.001, p**** < 0.0001.

Table 3.6 presents the causal mechanisms of the kinship navigation intervention on caregiver well-being, emphasizing the pathway through kinship service utilization and caregiver stress reduction. The mediation analysis demonstrated that the indirect pathway—Kinship Navigation Intervention → Kinship Service Utilization → Caregiver Stress Reduction → Caregiver Well-being—had a statistically significant Average Causal Mediation Effect (ACME = 1.600, $p < 0.001$). This indicates that the intervention's effect on caregiver well-being was substantially mediated through this pathway. The direct effect of the kinship navigation intervention (Average Direct Effect [ADE] = 1.548, $p < 0.001$) and the

total effect (Total Effect = 3.148, $p < 0.001$) both showed significant positive impacts on caregiver well-being. Notably, 50.8% of the total effect ($p < 0.001$) was mediated through kinship service utilization and caregiver stress reduction pathway, highlighting the importance of this dual-pathway mechanism in driving improvements in caregiver well-being. Further sensitivity analysis on this mediating pathway supports its robustness (See Appendix 3.5). The ACME was more robust, with a moderate level of confounding (ρ=0.6) needed to nullify the mediation effect. This indicates a stable mediating pathway with a reasonable level of sensitivity to potential unmeasured confounding.

Table 3.6
Mediation Modeling 2: Direct and Indirect Effects of Kinship Navigation Intervention via Service Utilization and Stress Reduction on Caregiver Well-Being

Parameter	Estimate [95% CI]	p-value
Average Causal Mediation Effect (ACME): Kinship Service Utilization + Caregiver Stress Reduction	1.600 [0.818-2.52]	<0.001***
Average Direct Effect (ADE): Kinship Navigation Intervention	1.548[0.548-2.49]	<0.001***
Total Effect: Kinship Navigation Intervention + Kinship Service Utilization + Caregiver Stress Reduction	3.148 [2.019-4.36]	<0.001***
Portion Mediated by Kinship Service Utilization + Caregiver Stress Reduction	50.8% [30.7%-77%]	<0.001***

Note. 1. *Mediation Modeling 2(Mediating Pathway 2: Kinship Navigation Intervention → Kinship Service Utilization → Caregiver Stress Reduction → Caregiver Wellbeing) : Total direct effect of kinship navigation intervention on caregiver well-being, and the indirect effect of kinship service utilization and caregiver stress reduction combined.*
2. p* < 0.05, p** < 0.01, p*** < 0.001, p**** < 0.0001.

Unmeasured confounders, such as child externalizing behaviors, may also influence the mediator pathway of service utilization alone. Sensitivity analysis revealed that a mild level of unmeasured confounding (1%, $R_m^2 * R_Y^2 = 0.01$) could nullify the mediation effect. Future

studies should prioritize collecting data on variables that may simultaneously influence both the mediator and the outcome within the causal framework (Austin et al., 2019; Digitale et al., 2021), such as child externalizing behaviors. These additional data will provide a more comprehensive understanding of the complex mechanisms underlying the kinship navigation intervention's impact on caregiver well-being.

Overall, the intervention demonstrated both direct effects—independent of mediators—and indirect effects through the combined pathway of kinship service utilization and reduced caregiver stress, contributing to its overall efficacy. The primary mechanism driving improvements in caregiver well-being is the sequential pathway of service utilization followed by stress reduction. In contrast, while the intervention may increase kinship service utilization, this pathway alone does not directly translate into improved well-being. These findings underscore the multifaceted nature of the intervention’s impact and highlight the critical role of targeting caregiver stress reduction to maximize its effectiveness.

7. Discussion

This intervention study is the first to investigate the mechanisms underlying kinship caregiver well-being using a DAGs approach to causal inference with a focus on informal kinship caregivers. The findings provide valuable insights into the efficacy of solution-focused kinship navigation case management in enhancing the well-being of informal kinship caregivers. Overall, the intervention demonstrated a positive causal effect on improving caregivers' well-being six months after case closure, with reduced caregiver stress serving as a significant mediator. However, the amount of service utilizations did not play a significant role in the causal mechanism. Notably, resource disparities between rural and urban counties emerged as a potential factor in the effect of kinship navigation intervention on caregiver well-being, suggesting that resource availability may influence the relationships

between the intervention, service utilization, and caregiver well-being. Overall, these results underscore the potential of targeted interventions to enhance informal kinship caregiver well-being, particularly by improving access to specific services and reducing caregiver stress.

Enhanced kinship navigation is a family needs-based approach that facilitates increasing the family resources in kinship care families through solution-focused case management. This type of supportive service is particularly vital for informal kinship caregivers, as formal child welfare service systems are child-centered and often not designed to accommodate their unique circumstances or provide direct access to their benefits and services. Instead, these caregivers primarily rely on indirect service provision through Kinship Navigator Programs. Additionally, many informal kinship caregivers are older adults with weaker support networks and limited welfare knowledge, shaped by a self-sufficiency mindset prevalent during their upbringing. This makes addressing their needs accessible and available in their aging environment increasingly important.

Both mediation pathways examined in this study were significant. However, further analysis of the indirect effects and sensitivity analyses indicated that caregiver stress reduction was the key mechanism through which the kinship navigation intervention influenced caregiver well-being, rather than kinship service utilization alone. Due to the limitations of secondary data analysis, the current study utilized the amount of service utilization as a proxy for this mediator. The findings suggest that service utilization alone was not a significant mediator driving the intervention's impact on caregiver well-being.

Informal kinship caregivers in the intervention group utilized professional mental and behavioral health services, caregiver support groups, and language services more frequently than those in the comparison group. The enhanced case management model fostered rapport-building with caregivers, potentially facilitating greater engagement with mental

health-related services. Additionally, the presence of group facilitators and navigators with lived experience in kinship care may have incentivized caregivers in the intervention group to participate more actively in support groups. In contrast, caregivers in the comparison group primarily received one-time information and referral interventions, typically facilitated by navigators within Area Agencies on Aging (AAA), who provided access to aging and disability services. This finding of difference in service utilization aligns with previous research on the importance of kinship caregivers' trust and rapport with peer providers with lived experience in promoting service engagement and satisfaction (Denby, 2011). Furthermore, intervention sites serving larger Latinx immigrant communities (e.g., Yakima, Franklin) observed increased utilization of language services to support kinship caregivers.

The Family Stress Framework supports the association between increased family resource, reduced family burden, and better stress management in both formal and mixed formal-informal kinship caregivers (Gleeson et al., 2016; Lee, Clarkson-Hendrix, et al., 2016). The mediation pathway incorporating multiple mediators—joint service utilization and caregiver stress reduction—was significant, with caregiver stress reduction making the primary contribution to the causal mediation effect. Future research should expand the scope of service utilization measurement to include dimensions such as type, frequency, service match, satisfaction, accessibility, and availability to better understand these mechanisms. In addition, findings from Dissertation Paper 2 underscored the longitudinal effect (e.g. resilience) of longitudinal peer support provided through caregiver support groups, which also contributed to caregiver stress reduction. However, as these data were not quantitatively measured, they could not be included in this analysis.

Informal kinship caregivers experienced significant stress reduction six months after case closure. The average treatment effect on the treated (ATT) model (see Table 3.3) suggested that regional disparities in service utilization might influence the mediation model, though

this effect was not statistically significant ($p = 0.66$). Additionally, the main effects model incorporating the interaction between region and service utilization (see Table 3.5) showed slight improvements over the model without the interaction term; however, regional disparities in service utilization remained non-significant.

The DAG-informed findings align with existing literature on parenting stress, identifying reduced caregiver stress as a critical mediator of the kinship navigation intervention's positive impact on caregiver well-being. These results support prior research linking material hardship, unmet needs, and limited resources to elevated parenting stress, while emphasizing the role of social support in mitigating stress and enhancing family competence (Gleeson et al., 2016). However, the findings also highlight that regional disparities in resources significantly influence these mechanisms, aligning with mixed evidence regarding the role of social support in buffering the effects of parenting stress on well-being (Hayslip & Kaminski, 2005; Sharda et al., 2019).

The study underscores the importance of future research in examining specific types of social support—such as instrumental, emotional and informational support, social engagement, volunteering, peer support groups led by individuals with lived experience, and child care—on the relationship between kinship service utilization and caregiver stress reduction, and their sustained effects within informal kinship caregiving contexts. Incorporating measures of social support into future studies could also enable alternative mediation analyses to further evaluate the robustness of mediation pathways and deepen our understanding of the mechanisms underlying the intervention's impact.

8. Limitation

This study has several limitations that should be acknowledged. First, while Directed Acyclic Graphs (DAGs) were employed to identify confounders and provide a robust

framework for causal inference, the relatively small sample size (N = 223) limits the statistical power and generalizability of the findings. The small sample size reflects the challenges in recruiting and retaining older informal kinship caregivers, who often face significant caregiving responsibilities and barriers to participation. Future studies should prioritize strategies to improve recruitment and retention to ensure larger, more representative samples, as well as ethnic subpopulations to facilitate generalization of intervention impact to subgroups.

Second, as a community-engaged research effort, this study incorporated input from lived experience experts (LEE) across all research stages, which led to the removal of certain measures, such as the parenting stress scale and socioeconomic status, due to community partners' concerns about negative rhetoric. While this engagement enriched the evaluation process, it also constrained the ability to fully align the DAG approach with predefined variables of interest. This aligns with prior discussions emphasizing the utility of engaging domain experts to construct DAGs when limited published information exists about the intervention under study especially among hard-to-reach populations (Rodrigues et al., 2022). Such an approach ensures findings are more robust and relevant to service users, program implementers, and policymakers, ultimately fostering evaluations that are both scientifically rigorous and responsive to community priorities. Future studies should explore strategies to balance data collection, data sovereignty, and research rigor with meaningful community engagement to enhance the relevance and impact of the findings.

9. Conclusion

Using the DAG approach to causal inference, the findings reveal that the kinship navigation intervention significantly enhances caregiver well-being, primarily through direct effects and the reduction of caregiver stress associated with service utilization, rather than

through the amount of service utilization alone. While regional disparities in resource and service availability may moderate the intervention's impact—where caregivers in resource-rich areas experience greater benefits—unmeasured confounders influencing both service utilization and caregiver well-being should be addressed to more accurately capture the underlying mechanisms. These results underscore the importance of addressing structural inequities to reduce caregiver stress and improve the effectiveness of interventions for informal kinship caregivers.

To advance care justice, Kinship Navigator Programs (KNPs) could be strengthened by connecting caregivers—particularly those who are marginalized—to more targeted and concrete supports that systematically alleviate caregiver stress. These supports may include guaranteed basic income (GBI), stable housing, and access to legal assistance. While navigators play a vital role in linking families to available services, their effectiveness is often limited by the broader availability of structural supports. Expanding the range of benefits and services would enable KNPs to more effectively address the root causes of caregiver stress and support long-term caregiver well-being.

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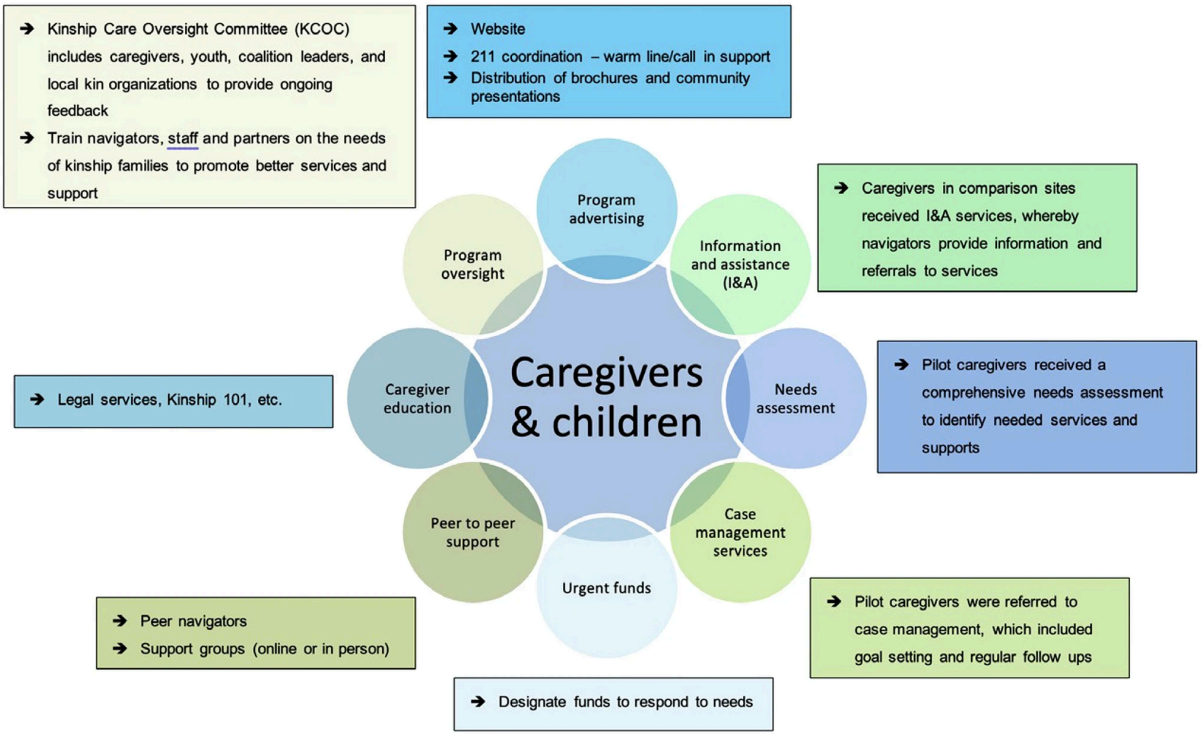
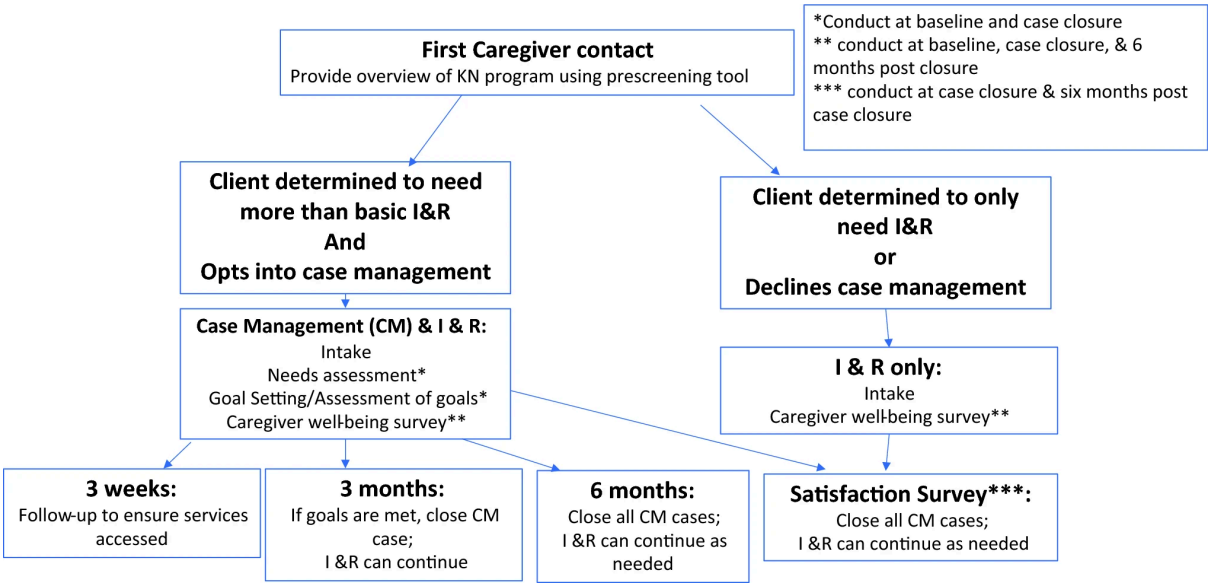
PAPER 3 APPENDIX

Appendix 3.1. Essential components of the Washington State Enhanced Kinship Navigator Program



Note. Reprinted from "Kinship navigator pilot program: Program manual," by University of Washington, School of Social Work-Partners for Our Children, Washington State Department of Children, Youth, & Families, & Washington State Department of Social and Health Services Aging & Long-Term Support Administration, 2023, p14, Seattle, WA/United States: University of Washington, School of Social Work-Partners for Our Children, Washington State Department of Children, Youth, & Families, & Washington State Department of Social and Health Services Aging & Long-Term Support Administration.

Appendix 3.2. Fidelity Process Used for Intervention & Control Groups



Note. Reprinted from "Kinship Navigator: An Assessment of Service Utilization, Satisfaction and Caregiver Wellbeing in Washington State," by A. Day, J, Fowler, S. Wollen, D. Perlmutter, G. Delaplane, R. Alber. and A. Krotke, 2024, *Clinical Social Work Journal*, p. 6. Copyright 2024 by Springer Nature.

Appendix 3.3. Kinship Navigator Program Satisfaction Survey

Kinship Navigator Program Satisfaction Survey

In order to maintain confidentiality and keep the survey anonymous, please do not type/write any names, including the names of your kinship child(ren) in your responses. **Taking this survey is voluntary and you can choose not to take the survey**. You can skip any questions you don't want to answer. If you choose not to take the survey, or don't answer all the questions**, there will not be any penalties.** Choosing not to take the survey or not answering all the questions will not affect any services you may be receiving or affect access to any services in the future.

Participant ID: *(first name initial, last name initial, city, month and year of birth)*	*Ex: AM-SEATTLE-04-1991* _____
Date survey was completed:	____/____/_____ *(MM / DD / YYYY)*
In what county do you receive kinship navigator services?	☐ Thurston ☐ Pierce ☐ Cowlitz ☐ Snohomish ☐ Skagit ☐ Spokane ☐ Yakima ☐ Clark ☐ Wahkiakum ☐ Whatcom ☐ San Juan ☐ Other: _____
Below is a list of services and resources. Please tell us whether you used any of these services or resources within the last 90 days (3 months) and, if so, please indicate whether you were satisfied with the services you received and if the kinship navigator was helpful in gaining access to or using this service.	

	Did you use this service? *(in the last 3 months)*				If so, were you satisfied with the services?		Was the kinship navigator helpful in getting access and/or using this service?	
	Yes	No	Service not available	Not applicable (N/A)	Yes	No	Yes	No
1. Financial support for necessities (i.e. rent, utilities, phone, car insurance/repairs, etc.)								
2. Financial education support (i.e. taxes, budgeting, retirement, etc.)								
3. Support in finding/maintaining housing (i.e. section 8, tribal housing, eviction prevention, etc.)								
4. Support obtaining durable goods (i.e. bedding, furniture, clothing, etc.)								
5. Help getting enough food daily for your family (i.e. food bank, WIC, Basic Food (“food stamps”) SNAP, etc.)								
6. Getting and keeping public assistance (i.e. Medicaid, Medicare, SSI, TANF, ABD, etc.)								
7. Help with transportation (i.e. bus/taxi fare, gas, rides, etc.)								
8. School related supports (i.e. enrollment, IEP/504, special education services, etc.)								
9. Help accessing primary or other medical care (**for self**)								

	Did you use this service? *(in the last 3 months)*				If so, were you satisfied with the services?		Was the kinship navigator helpful in getting access and/or using this service?	
	Yes	No	Service not available	Not applicable (N/A)	Yes	No	Yes	No
10. Help accessing primary or other medical care (**for kinship child**)								
11. Respite: temporary, time-limited break for caregivers (i.e. camps, retreat, youth activities, temporary help, etc.)								
12. Referral to Aging and Disability Resource Center (ADRC) or Area Agency on Aging (AAA) or Information or Assistance.								
13. Personal and emotional support for **yourself**: someone to talk to (i.e. family, friend, neighbor, community-based groups, etc.).								
14. Someone to talk to regarding **your kinship child** (i.e. family, friend, neighbor, community-based groups, etc.)								
15. Professional behavioral health/counseling for **kinship child** (i.e. therapy, holistic healing, substance recovery, etc.)								
	Did you use this service? *(in the last 3 months)*				If so, were you satisfied with the services?		Was the kinship navigator helpful in getting access and/or using this service?	

	Yes	No	Service not available	Not applicable (N/A)	Yes	No	Yes	No
16. Professional behavioral health/counseling **for self** (i.e. therapy, psychiatry, holistic healing, substance recovery, etc.)								
17. Kinship care support groups								
18. Training for kinship caregivers (i.e. parenting classes, trainings, etc.)								
19. Language services (i.e. language classes (ESL), interpreter, translation services.)								
20. Access to legal services and information (legal representation, custody, estate planning/end of life, child support, etc.)								
21. In-home family services (i.e. visiting nurses, family preservation, home health aide, etc.)								
22. Other services (please specify): _____								
23. Other services (please specify): _____								
As a result of participating in kinship care programs or services, please tell us whether you agree or disagree with each of the following statements:								

	Strongly disagree	Disagree	Somewhat disagree	Neither agree nor disagree	Somewhat agree	Agree	Strongly agree
24. I now feel that I am better able to cope with caring for the child I am raising than before I became involved in kinship care services and activities.	☐	☐	☐	☐	☐	☐	☐
25. I do not feel as stressed out as I was before participating in kinship care services and activities.	☐	☐	☐	☐	☐	☐	☐
26. I feel as if my overall health and sense of well-being have improved since participating in kinship care services and activities.	☐	☐	☐	☐	☐	☐	☐
27. I am enjoying life more now since participating in kinship care services and activities.	☐	☐	☐	☐	☐	☐	☐
28. I plan to continue to participate in kinship care activities/services.	☐	☐	☐	☐	☐	☐	☐
29. My Kinship Navigator was very supportive.	☐	☐	☐	☐	☐	☐	☐
30. My Kinship Navigator listened to my needs.	☐	☐	☐	☐	☐	☐	☐
31. My Kinship Navigator was very knowledgeable of available resources and services.	☐	☐	☐	☐	☐	☐	☐
32. My Kinship Navigator linked me to the services that I need.	☐	☐	☐	☐	☐	☐	☐
33. I would recommend the Kinship Navigator program to others kinship caregivers.	☐	☐	☐	☐	☐	☐	☐

	Strongly disagree	Disagree	Somewhat disagree	Neither agree nor disagree	Somewhat agree	Agree	Strongly agree
34. Where do you think your kinship child will be living one year (12 months) from now?	☐ With me			☐ Parent/guardian			

	☐ Foster parent	☐ Another relative
	☐ Other, please specify: _____	

35. If you had any difficulty accessing any service, or were not satisfied with the service, please tell us about your experience:

_____

_____

_____

_____

_____

_____

36. What resources and/or services have been the most helpful to you as a kinship caregiver raising a child?

_____

_____

_____

_____

_____

_____

37. What were the helpful things that the kinship navigator did for you?

_____

_____

_____

_____

_____

_____

38. What could the kinship navigator have done differently that would have been more helpful?

_____

_____

_____

_____

_____

_____

39. Are there any service or services that you have or currently need but have not been able to get?

☐ Yes

☐ No

If yes, please describe what service(s): _____

_____

_____

Appendix 3.4. Open Confounding Pathways in Figure 3.2.

Table 1

Open confounding pathways in Figure 3.2.

Open confounding pathway	Variables to condition on to close confounding pathway*
1 kinship navigation intervention ← age → caregiver well-being	Age
2 kinship navigation intervention ← age → kinship service utilization → caregiver well-being	Age
3 kinship navigation intervention ← age → kinship service utilization ← residential region → longitudinal peer support → caregiver well-being	Age; Residential region
4 kinship navigation intervention ← age → kinship service utilization ← residential region → caregiver well-being	Age; Residential region
5 kinship navigation intervention ← age → kinship service utilization ← social support network → caregiver stress → caregiver well-being	Age; Social support network
6 kinship navigation intervention ← age → kinship service utilization ← social support network → caregiver stress ← caregiver education → caregiver well-being	Age; Social support network; Caregiver education
7 kinship navigation intervention ← age → kinship service utilization ← social support network → caregiver stress → caregiver general health → caregiver well-being	Age; Social support network; Caregiver general health
8 kinship navigation intervention ← age → kinship service utilization ← social support network → caregiver stress ← child externalizing behaviors→ caregiver well-being	Age; Social support network; Child externalizing behaviors
9 kinship navigation intervention ← age → kinship service utilization ← social support network → caregiver stress ← longitudinal peer support → caregiver well-being	Age; Social support network; Longitudinal peer support
10 kinship navigation intervention ← age → kinship service utilization → caregiver stress → caregiver well-being	Age; Caregiver stress
11 kinship navigation intervention ← age → kinship service utilization → caregiver stress ← caregiver education → caregiver well-being	Age; Caregiver education; Caregiver stress
12 kinship navigation intervention ← age → kinship service utilization → caregiver stress → caregiver general health → caregiver well-being	Age; Caregiver stress; Caregiver general health

13 kinship navigation intervention ← age → kinship service utilization → caregiver stress ← child externalizing behaviors → caregiver well-being	Age; Child externalizing behaviors; Caregiver stress
14 kinship navigation intervention ← age → kinship service utilization → caregiver stress ← longitudinal peer support → caregiver well-being	Age; Longitudinal peer support; Caregiver stress
15 kinship navigation intervention ← age → kinship service utilization ← caregiver education → caregiver well-being	Age; Caregiver education
16 kinship navigation intervention ← age → kinship service utilization → longitudinal peer support → caregiver well-being	Age; Longitudinal peer support
17 kinship navigation intervention ← age → kinship service utilization ← child externalizing behaviors → caregiver well-being	Age; Child externalizing behaviors
18 kinship navigation intervention ← residential region → caregiver well-being	Residential region
19 kinship navigation intervention ← residential region ← race → kinship service utilization → caregiver well-being	Race; Kinship service utilization
20 kinship navigation intervention ← residential region → kinship service utilization → caregiver well-being	Residential region; Kinship service utilization
21 kinship navigation intervention ← residential region → kinship service utilization ←social support network → caregiver stress → caregiver well-being	Residential region; Social support network; Caregiver stress
22 kinship navigation intervention ← residential region → kinship service utilization ←social support network → caregiver stress ← caregiver education → caregiver well-being	Residential region; Social support network; Caregiver education; Caregiver stress
23 kinship navigation intervention ← residential region → kinship service utilization ←social support network → caregiver stress ← longitudinal peer support → caregiver well-being	Residential region; Social support network; Longitudinal peer support; Caregiver stress
24 kinship navigation intervention ← residential region → kinship service utilization ←social support network → caregiver stress → caregiver general health → caregiver well-being	Residential region; Social support network; Caregiver stress; Caregiver general health
25 kinship navigation intervention ← residential region → kinship service utilization ←social support network → caregiver stress ← child externalizing behaviors → caregiver	Residential region; Social support network; Child externalizing

well-being	behaviors; Caregiver stress
26 kinship navigation intervention ← residential region → longitudinal peer support → caregiver well-being	Residential region; Longitudinal peer support
27 kinship navigation intervention ← residential region → longitudinal peer support ← kinship service utilization → caregiver well-being	Residential region; Kinship service utilization; Longitudinal peer support
28 kinship navigation intervention ← residential region → longitudinal peer support ← kinship service utilization ← child externalizing behaviors → caregiver well-being	Residential region; Kinship service utilization; Child externalizing behaviors; Longitudinal peer support
29 kinship navigation intervention ← residential region → longitudinal peer support → caregiver stress → caregiver well-being	Residential region; Longitudinal peer support; Caregiver stress
30 kinship navigation intervention ← residential region → longitudinal peer support → caregiver stress → caregiver education → caregiver well-being	Residential region; Longitudinal peer support; Caregiver stress; Caregiver education
31 kinship navigation intervention ← residential region → longitudinal peer support → caregiver stress ← caregiver education → kinship service utilization → caregiver well-being	Residential region; Longitudinal peer support; Caregiver stress; Caregiver education; Kinship service utilization
32 kinship navigation intervention ← residential region → longitudinal peer support → caregiver stress ← social support network → kinship service utilization → caregiver well-being	Residential region; Longitudinal peer support; Caregiver stress; Social support network; Kinship service utilization
33 kinship navigation intervention ← residential region → longitudinal peer support → caregiver stress ← age → caregiver well-being	Residential region; Longitudinal peer support; Caregiver stress; Age
34 kinship navigation intervention ← residential region → longitudinal peer support → caregiver stress ← age → kinship service utilization → caregiver well-being	Residential region; Longitudinal peer support; Caregiver stress; Age; Kinship service utilization
35 kinship navigation intervention ← residential region → longitudinal peer support → caregiver stress ← age → kinship service utilization ← child externalizing behaviors	Residential region; Longitudinal peer support; Caregiver stress;

→ caregiver well-being	Age; Kinship service utilization; Child externalizing behaviors

* Conditioning on at least one node on an open confounding pathway is sufficient to close or block the pathway (Austin et al., 2019; Shrier & Platt, 2008).

Appendix 3.5. Mediation Sensitivity Analysis Results

3.5.1. Sensitivity Analysis for Pathway 1: Kinship Navigation Intervention → Kinship Service Utilization → Caregiver Wellbeing

Mediation Sensitivity Analysis for Average Causal Mediation Effect

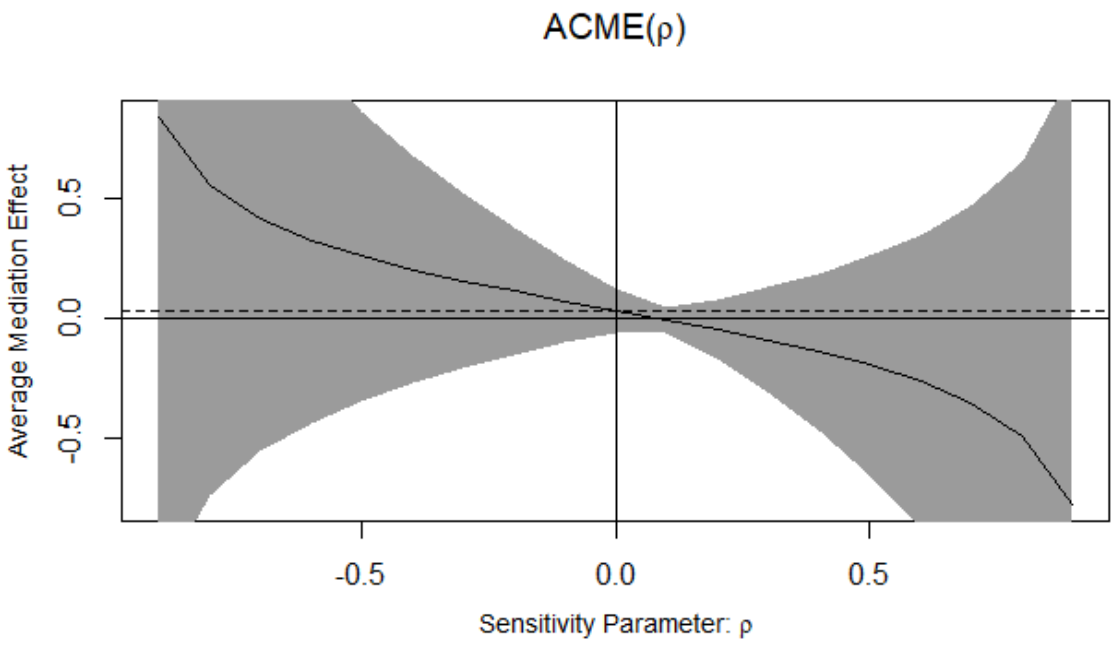
Sensitivity Region

	Rho	ACME	95% CI Lower	95% CI Upper	R^2_M*R^2_Y*	R^2_M~R^2_Y~
[1,]	-0.9	0.8395	-1.1143	2.7934	0.81	0.4057
[2,]	-0.8	0.5534	-0.7352	1.8421	0.64	0.3206
[3,]	-0.7	0.4153	-0.5523	1.3829	0.49	0.2454
[4,]	-0.6	0.3253	-0.4332	1.0838	0.36	0.1803
[5,]	-0.5	0.2577	-0.3441	0.8596	0.25	0.1252
[6,]	-0.4	0.2026	-0.2716	0.6768	0.16	0.0801
[7,]	-0.3	0.1549	-0.2092	0.5190	0.09	0.0451
[8,]	-0.2	0.1117	-0.1533	0.3768	0.04	0.0200
[9,]	-0.1	0.0712	-0.1023	0.2448	0.01	0.0050
[10,]	**0.0**	**0.0319**	**-0.0586**	**0.1224**	**0.00**	**0.0000**
[11,]	0.1	-0.0074	-0.0620	0.0471	0.01	0.0050
[12,]	0.2	-0.0480	-0.1709	0.0750	0.04	0.0200
[13,]	0.3	-0.0911	-0.3094	0.1271	0.09	0.0451
[14,]	0.4	-0.1388	-0.4659	0.1883	0.16	0.0801
[15,]	0.5	-0.1940	-0.6481	0.2602	0.25	0.1252
[16,]	0.6	-0.2615	-0.8720	0.3491	0.36	0.1803
[17,]	0.7	-0.3515	-1.1710	0.4679	0.49	0.2454
[18,]	0.8	-0.4897	-1.6300	0.6507	0.64	0.3206
[19,]	0.9	-0.7757	-2.5812	1.0298	0.81	0.4057

Rho at which ACME = 0: 0.1

R^2_M*R^2_Y* at which ACME = 0: 0.01

R^2_M~R^2_Y~ at which ACME = 0: 0.005


ACME(ρ)
Average Mediation Effect
0.5
0.0
-0.5
-0.5
0.0
0.5
Sensitivity Parameter: ρ

Appendix 3.5.2. Mediation Analysis for Pathway 2: Kinship Navigation Intervention → Kinship Service Utilization → Caregiver Stress Reduction → Caregiver Wellbeing

Mediation Sensitivity Analysis for Average Causal Mediation Effect

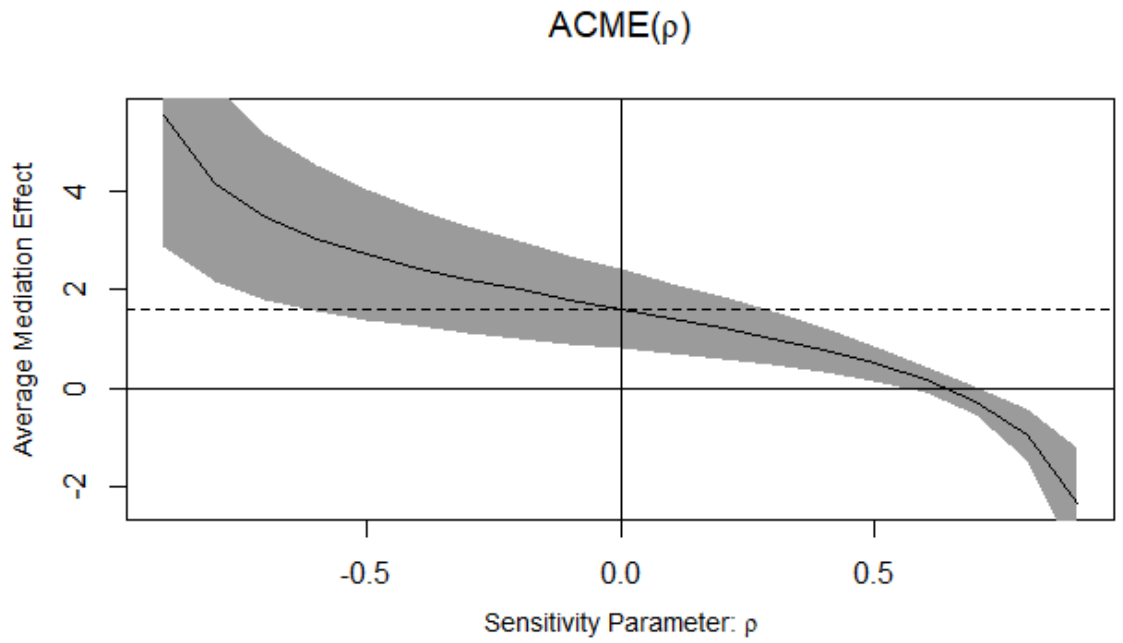
Sensitivity Region

	Rho	ACME	95% CI Lower	95% CI Upper	R^2_M*R^2_Y*	R^2_M~R^2_Y~
[1,]	**0.6**	**0.1700**	**-0.0942**	**0.4342**	**0.36**	**0.1734**
[2,]	0.7	-0.2689	-0.5512	0.0135	0.49	0.2360

Rho at which ACME = 0: 0.6

R^2_M*R^2_Y* at which ACME = 0: 0.36

R^2_M~R^2_Y~ at which ACME = 0: 0.1734



CONCLUSION

This sequential, three-paper mixed-methods dissertation is based on data from a five-year community-engaged research project conducted in collaboration with informal kinship caregivers and community partners with lived experience expertise (LEE). Stakeholders engaged in every research stage, including study design, measurement development, data collection, enhanced program implementation, fidelity tracking and program adaptation, program evaluation, and research dissemination.

Specially, the dissertation examines patterned caregiving challenges, Kinship Navigator Program (KNP) implementation, and intervention impacts, aligning with the broader policy goal of the Family First Prevention Services Act (FFPSA) to prioritize kinship care as a preventive, evidence-informed measure in child welfare systems. Across the three papers, the research addresses distinct but interconnected dimensions of informal kinship caregiving. Paper 1 addressed the environment scan on the informal kinship placement, paper 2 program adaptations and paper 3 outcome evaluation of the enhanced intervention impact. Together, these studies provide a nuanced understanding of how to enhance kinship-centered support for this underserved population.

Paper 1 identifies distinct patterns of caregiving challenges among informal kinship caregivers and examines how multilevel factors—including age, race, sex, and access to Kinship Navigator Programs (KNPs)—shape these experiences. By analyzing the associations between caregiving challenge subgroups, sociodemographic determinants, and KNP engagement, the findings reveal critical vulnerabilities, particularly for older, female, and BIPOC caregivers. This study underscores the need to address prevention-related needs in this subpopulation, offering insights into the connections and gaps between challenges and

KNP engagement. These relationships provide a foundation for targeted interventions to promote service utilization in the context of kin-first child welfare practices.

Paper 2 examines the street-level implementation of Kinship Navigator Programs (KNPs) from the perspectives of informal kinship caregivers and navigators with lived experience expertise. The structural and funding disparities that have long hindered informal kinship caregivers' access to equitable support, compared to formal foster and kinship care, remain deeply inequitable. Despite the recognition of kinship care as a preferred placement for maltreated children, persistent disparities in program funding and benefits hinder the implementation of evidence-based services, uptake and scale-up. This study provides insights into the local implementation of KNPs, highlighting key facilitators and barriers to their reach, efficacy, implementation, and maintenance. The findings advocate for more flexible funding requirements under FFPSA to address these inequities and promote care justice. Additionally, the study underscores the importance of culturally tailored outreach and implementation strategies in KNPs to ensure equitable and sustained support, particularly for racially and culturally diverse caregivers.

Paper 3 employs a Directed Acyclic Graph (DAG) approach of causal inference to evaluate the impact of enhanced kinship navigation interventions on caregiver well-being six months post-case closure. The findings demonstrate that the intervention significantly improves well-being primarily through direct effects and the joint indirect effect of kinship service utilization and reduction of caregiver stress, with limited influence from service utilization alone. However, regional disparities in resource accessibility, availability and other primary confounders (e.g. child externalizing behaviors) might moderate the intervention’s causal impact. These results underscore the need to address these inequities to maximize the efficacy of interventions associated with caregiver stress reduction for informal kinship caregivers.

Collectively, these studies provide an integrated perspective on the multifaceted challenges, systemic inequities, and intervention impacts within informal kinship caregiving. The findings inform actionable strategies for optimizing service delivery, addressing structural disparities, and promoting equitable support for informal kinship caregivers as part of FFPSA's kin-first prevention framework.

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Yoshida, K., Hernández-Díaz, S., Solomon, D. H., Jackson, J. W., Gagne, J. J., Glynn, R. J., & Franklin, J. M. (2017). Matching weights to simultaneously compare three treatment groups: Comparison to three-way matching. Epidemiology, 28(3), 387–395.

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EDUCATION

PhD	**University of Washington, School of Social Work**	June 2025
	Statistics Concentration, Center for Statistics and the Social Sciences	May 2024
MSW	**National Taiwan University, Department of Social Work**	June 2012
BA	**National Taipei University, Department of Social Work**	June 2009

RESEARCH GRANTS

National Science and Technology Council Taiwanese Overseas Pioneers Grants (TOP Grants), "Co-Creating and Evaluating Community-Based Kinship Navigator Programs for Our Use: Partnering with Lived Experience Experts of Informal Kinship Caregivers and Navigators to Profile Caregiving Challenges, Address Program Implementation, and Identify Mechanisms of Change in Caregiver Well-Being in Washington State" Role: *Principal Investigator* ($30,000) 2024-2025

Taiwan Ministry of Education Doctoral Study Grant, "The Association between Adverse Childhood Experience, Social Connectivity, and Suicidal Ideation among Unaccompanied Houseless Youth in Seattle" Role: *Principal Investigator* ($32,000) 2022-2024

AWARDS, HONORS, & FELLOWSHIPS

Distinguished Dissertation Award Nomination, UW Graduate School	04/2025
Center for Statistics and the Social Sciences (CSSS) Travel Award ($500)	11/2024
Carolina Population Center the 2024 Add Health Users Conference Travel Award, University of North Carolina at Chapel Hill ($950)	06/2024
Graduate School Fund for Excellence and Innovation Travel Award ($500)	06/2024
Columbia Population Research Center Future of Families Summer Data Workshop, Columbia University in the City of New York ($1,000)	06/2023
University of Washington CSA Scholar ($500)	02/2023

Graduate School Fund for Excellence and Innovation Travel Award ($800)	01/2023
Demetriatis Fellowship (tuition + stipend $2,863/month)	03/2022
Graduate School Fund for Excellence and Innovation Travel Award ($800)	02/2022
Graduate School Fund for Excellence and Innovation Travel Award ($800)	11/2020
Marsha S. Glazer Endowed Fellowship (tuition + stipend $2,863/month)	01/2020
University of Washington Top Scholar Award for Excellence and Innovation ($3,000)	09/2019
Taiwan Ministry of Education Scholarship for Overseas Study (tuition + stipend $22,000/yr, withdrawn)	2018-21
Commendation for Outstanding Performance in Crisis Intervention in a Child Abuse Fatality Case, Taichung City Government, Taiwan	2016
Distinguished Draftee Award; Excellence on Alternative Military Service (Highest Honor), Ministry of the Interior, Taiwan	2014
Taiwanese Council on Social Work Education Outstanding Social Work Dissertation and Thesis Award	06/2013

RESEARCH INTERESTS & EXPERIENCE

Interests

- Child maltreatment prevention; comparative child welfare systems; evidence-based prevention of system involvement
- Adverse childhood experiences (ACEs) and life-course health disparities (with a focus on social determinants of health); social determinants of health and health inequities; vicarious resilience and natural support; intergenerational post-traumatic growth; trauma-informed telehealth technology
- Participatory intervention/implementation research; community-engaged research (CEnR); program evaluation
- Causal inference with observational data for intervention research with a focus on the application of Directed Acyclic Graphs (DAGs)
- Identifying forms of epistemic violence/injustice and promoting epistemic humility, empowerment, and diversity

Experience

Preventing the Risk of Child Sexual Abuse in Child Welfare and Juvenile Justice Systems, *Predoctoral Research Assistant* — 07/2024-09/2024, 12/2024- present

Conducted a systematic literature review on the connection between child sexual abuse and involvement in the child welfare systems. Focused on

evidence-informed policies and interventions, particularly concerning the commercial sexual exploitation of children, survival sex, dual-system involvement (juvenile justice and child welfare), and runaway/houseless foster care youth, to develop preventive best practices for the Joshua Foundation.

Co-Creating and Evaluating Community-Based Kinship Navigator Programs for Our Use: Partnering with Lived Experience Experts of Informal Kinship Caregivers and Navigators to Profile Caregiving Challenges, Address Program Implementation, and Identify Mechanisms of Change in Caregiver Well-Being in Washington State, *Principal Investigator* 09/2022-03/2025

This mixed-methods study examines parenting challenges among informal kinship caregivers, explores street-level program implementation from the lived experience expert perspectives of caregivers and navigators, and assesses caregiver well-being outcomes associated with service utilization through local kinship navigator programs in Washington State. The findings will inform kinship-centered, culturally tailored, and equitable program implementation, serving as a preventive strategy to reduce child entry into foster care.

Kinship Navigator Program Evaluation; Child Welfare Training and Advancement Program (CWTAP) Evaluation, *Predoctoral Research Assistant* 09/2021-01/2022

Data cleaning and analysis of the Kinship Navigator Program in Washington State. The study aims to address kinship caregivers' unmet needs and match them with timely support through solution-focused case management. The data analysis on the CWTAP program was to evaluate the training satisfaction and child welfare competencies among program alumni.

The Association between Adverse Childhood Experience, Social Connectivity, and Suicidal Ideation among Unaccompanied Houseless Youth, *Research Practicum & Principal Investigator (Advisor: Dr. Jon Conte)* 01/2021-present

Developed a complete research proposal. The proposal aims to test the Interpersonal Theory of Suicide as it relates to the association between adverse childhood experiences, social network characteristic, and suicidal ideation/attempts among unaccompanied houseless young adults.

National Training and Development Curriculum (NTDC) for Foster and Adoptive Parents; Critical On-going Resource Family Education (CORE-Teen), *Predoctoral Research Assistant* 03/2020-06/2021

Conducted an experimental evaluation of trauma-informed interventions for resource parents, designed to enhance placement stability, well-being, and permanency for youth in foster care. Authored outcome evaluation reports. Prepared manuscripts for submission to a peer-reviewed journal and a book chapter.

Developing Relational Permanency Planning Program for Aging-Out Youth, *Graduate Research Assistant* 11/2017-11/2018

Led an action research project with social workers to explore issues related to permanency for aging-out youth (16 cases) in state custody and residential care. Developed an intervention protocol to enhance youths' relational permanence. Presented findings at a national conference.

Creating Protocols for the Prevention of Institutional Sexual Abuse in Residential Care, *Graduate Research Assistant* 07/2017-06/2018

Synthesized existing literature on international case studies of institutional abuse in out-of-home care, with a focus on peer-perpetrated sexual abuse and professional perpetrators. Examined etiological factors, triggering contexts, poly-victimization, outcomes, early detection, and multi-level interventions. Drafted manuscripts based on the findings.

Model Shift from Paternalistic to Family Engagement in the Service Delivery of Child Protection Service, *Project Director* 01/2015-06/2017

Conducted focus group interviews with front-line CPS practitioners and supervisors on their experiences with risk and safety assessments, service delivery, consumer service use behaviors in out-of-home care, and group decision-making. Coded and analyzed qualitative data, and developed a culturally relevant, team-based decision-making model: Family Team Meeting (FTM). Managed meeting records, conducted content analysis and data mining for model adaptation and fidelity, and briefed stakeholders on the model. Presented findings at an academic conference and co-authored two published research paper.

Mixed-Methods Outcome Research on the Effectiveness of Group Music Intervention for Older Adults with Dementia, *Co-Principal Investigator (with Dr Chang-Hao Kao)* 06/2014-06/2015

Co-led an 18-week percussion music intervention for older adults with dementia. Recruited participants and designed a one-sample repeated measures study to evaluate the intervention's impact on emotional and behavioral health outcomes, including depression, anxiety, agitation, and loneliness. Collected qualitative data to explore participants’ perspectives on participation, subjective well-being, and intervention efficacy.

Analyzed both quantitative and qualitative data. Presented research findings and authored technical reports.

School Readiness and Parenting, *Graduate Research Assistant* 06/2013-12/2013
Conducted in-depth interviews with Chinese-speaking Taiwanese parents of preschool children, focusing on father engagement and school readiness. Assessed children's language, cognitive, and social development.

Settled or Uprooted? The meaning of home and place attachment for minoritized older men within an independent-living community, 09/2011-07/2012
Principal Investigator
Conducted an independent qualitative inquiry under the supervision of Dr. Hon-Yei Yu. Completed a year-long ethnographic study exploring the meaning of home and place attachment among minoritized older men in independent living. Conducted in-depth interviews with eight ethnically minoritized older men from an intersectional life-course perspective, analyzed data using grounded theory, and successfully defended the master's thesis. Presented findings at an academic conference.

Surviving Social Support: Healthcare Challenges Facing Taiwanese Centenarians, *Graduate Research Assistant* 09/2009-06/2010
Conducted a literature review on international centenarian studies, focusing on living arrangements, social support, well-being, quality of life, and life satisfaction of centenarians. Coded and analyzed both quantitative and qualitative data.

PUBLICATIONS & PRESENTATIONS

Revised & Resubmitted / Under Review

1. **Lin, H-P.**, Day, A., Tajima, E., Huh, D., & Delaplane, G. (R&R). Bridging gaps in grandparenting: Kinship Navigator Programs mitigate sociodemographic disparities in caregiving challenges of informal kinship placement- A Latent Class Analysis. *Gerontological Social Work.*

Peer-Reviewed Publications

6. **Lin, H.-P.**, Tajima, E., Walters, K., & Sherry, M. (2025). “Erased in Translation”: Decoding Settler Colonialism Embedded in Cultural Adaptations to Family Group Conferencing (FGC). Social Sciences, 14(5), 259. (IF: 1.7; Q2- General Social Sciences; Scopus).

5. Fowler, J., Day, A. G., **Lin, H-P.**, Tompkins, C., Vanderwill, L., & Cohick, S.

(2023). National Training and Development Curriculum: Does having access to training at the "Right-Time" Positively Impact Foster Parenting? *Children and Youth Services Review*, 155, 107305. (IF: 2.4; Q1- Social Work, Education, Sociology and Political Science; Q2- Developmental and Educational Psychology; SSCI; Scopus).

4. Lin, C-H., & **Lin, H-P**. (2023). A systematic review of the program implementation of kinship navigator programs in the United States. *Community Development Quarterly*, 183, 269-282. [in Mandarin]

3. **Lin, H-P.**, Lin, F. Y., Chang, B. C., Huang, J. S., & Hou, S. J. (2018). Connectedness program: Developing relational permanency planning for aging-out youth. *Community Development Quarterly*, 164, 106-115. [in Mandarin]

2. **Lin, H-P.,** & Kao, C. H. (2018). Outcome evaluation of a group music intervention for older adults with dementia. *Taiwan Journal of Gerontological Health Research*, 14, 83-99. [in Mandarin] (THCI)

1. Huang, J. S., **Lin, H-P.**, Hsu, M. H., & Hou, S. J. (2017). Family Team Meeting (FTM): A collaborative practice model engaging family and the public sector in child welfare. *Community Development Quarterly*, 153, 286-301. [in Mandarin]

Book Chapters

1. **Lin, H-P.,** Day, A. G., Wollen, S., Tompkins, C., & Vanderwill, L. (2023). Characteristics of resource parent trainers and their identified needs for racially, ethnically, and culturally relevant training material. In R.W. Denby & C. Ingram (Eds.). *Child and Family Serving Systems: A Compendium of Policy and Practice (Volume III, Part 1).* Child Welfare League of America.

Manuscript In Progress

Lin, H-P. , Verdugo, J., Tajima, E & Conte, J. (in progress). Predictors of gambling participation in young adult survivors of child sexual abuse: Evidence from the National Longitudinal Study of Adolescent to Adult Health (Add Health).

Lin, H-P., Day, A., Tajima, E., Huh, D., Pittman, L., Wollen, S. & Delaplane, G. (in progress). Who is missing? A 2-Step Cluster Analysis and Latent Class Analysis of kinship caregiving circumstances among informal kinship caregivers not attending the Kinship Navigator Program in Washington State.

Lin, H-P., Lee, H. & Hale, L. (in preparation). Maternal work schedules and child sleep quality.

Lin, H-P., Day, A., Tajima, E., Huh, D., Pittman, L., Wollen, S. & Delaplane, G. (in preparation). Service engagement, retention and attrition in kinship caregivers attending the Kinship Navigator Program in Washington State: A survival analysis.

Lin, H-P., Day, A.,Tajima, E., Huh, D., Pittman, L., Wollen, S. & Delaplane, G. (in preparation). Decentralizing or strengthening natural support? Social network, peer support, and vicarious resilience in informal kinship caregivers attending the Kinship Navigator Program in Washington State.

Lin, H-P. (in preparation). Association between adverse childhood experiences and sleep disturbances in young adulthood: A systematic review & meta-analysis.

Lin, H-P. & Zhang, L. (in preparation). Association between adverse childhood experiences and future orientation in young adulthood: A systematic review & meta-analysis.

Lin, H-P. (in preparation). Predicting early disclosure of child sexual abuse: A Classification and Regression Tree Analysis (CART).

Reports and Evidence-based Modules

7. **Lin, H-P.**, Woo, C., Rankin, L., & Brennan, K. (2021). CWTAP graduation report. Partners for Our Children & Washington State Department of Children, Youth, and Families, U.S.

6. **Lin H. P.**, Fowler J., Day A. (2021). Evaluation of the NTDC Right-Time Training. National Training and Development Curriculum for Foster and Adoptive Parents. Retrieved from https://ntdcportal.org/wp-content/uploads/2021/08/FInal-Right-time-evaluation-full-report_JF_v4.pdf

5. Day, A. G., **Lin, H-P.,** & Vanderwill, L. (2020). A Follow-Up Evaluation of the CORE-Teen Curriculum: A Cross-Site Report. Children's Bureau, U.S.

4. Day, A. G., **Lin, H-P.,** Wollen, S., & Vanderwill, L. (2020). Train the Trainer Satisfaction Analysis: An Outcome Evaluation of the NTDC Train the Trainer Training. Children's Bureau, U.S.

3. Day, A. G., & **Lin, H-P.** (2020). WA Kinship Navigation: Program Advertising. Washington State Department of Social and Health Services, U.S.

2. **Lin, H-P.** (2016). The theoretical underpinning and practice of Family Team Meeting (FTM). Center for the Prevention of Domestic Violence and Sexual Assault, Taichung City Government, Taiwan.

1. **Lin, H-P.** (2014). Mixed-methods outcome research on the effectiveness of group music intervention for older adults with dementia. Senior Independent Living, Bureau of Social Welfare, Taipei City Government, Taiwan.

Peer-Reviewed Conference Presentations

12. **Lin, H-P.**, Day, A., Tajima, E., Huh, D. & Pittman, L. (2025, January). *Reaching and Serving Informal Kinship Caregivers in Washington State: An Implementation Analysis on the Lived Experiences of Informal Kinship Caregivers and Kinship Navigators*. Oral Presentation at the 29th Annual Conference of the Society for Social Work and Research (SSWR), Seattle, Washington.

11. **Lin, H-P.**, Day, A., Tajima, E., Huh, D. & Pittman, L. (2024, June). *Patterns of Living Arrangement in Informal Kinship Placement and Their Associated Contextual Determinants in Washington State: A Latent Class Analysis*. Poster presented at Envision 24: The Future of Prevention, the Moore Center for the Prevention of Child Sexual Abuse, the Johns Hopkins University Bloomberg School of Public Health, Washington D.C.

10. **Lin, H-P.**, Verdugo, J. & Conte, J. (2024, June). *Gender difference in gambling participation in young adult survivors of child sexual abuse: Evidence from the National Longitudinal Study of Adolescent to Adult Health (Add Health).* Oral presentation at the 2024 Add Health Users Conference, Chapel Hill, North Carolina.

9. **Lin, H-P.** (2024, May). *Logistic regression models fitting the predictors of gambling participation in young adult survivors of child sexual abuse: Model selection and data visualization.* Poster presentation at the Center for Statistics and the Social Sciences 25th Anniversary Celebration, Seattle, Washington.

8. **Lin, H-P.** (2023, January). *Predictors of gambling participation in young adult survivors of child sexual abuse: Evidence from the National Longitudinal Study of Adolescent to Adult Health (Add Health).* Poster Presentation at the 27th Annual Conference of the Society for Social Work and Research (SSWR), Phoenix, Arizona.

7. Lara, M., Bomberry, Y., **Lin, H-P.**, Dove, B., & Au K. M. (2022, October). *Examining the roots of harm(s) in child welfare to unlock possibilities for healing and restoration*. Panelist at the 2022 Kempe Center International Virtual Conference: A Call to Action to Change Child Welfare, Aurora, Colorado.

6. Salazar, A., Day, A. G., Haggerty, K., Vanderwill, L., **Lin, H-P.**, Tompkins, C., & Barkan, S. (2022, January). *Assessing foster and adoptive parent training strengths and challenges: An evaluation of the National Training and Development Curriculum.* Poster Presentation at the Society for Social Work and Research the 26th Annual Conference, Washington, D. C.

5. **Lin, H-P.,** Day, A. G., Wollen, S., Tompkins, C., & Vanderwill, L. (2021, November). *Characteristics of resource parent trainers and their identified needs for training*. Poster Presentation at the Council on Social Work and Education the 67th Annual Program Meeting, Orlando, FL. (Accepted & Withdrawn due to COVID)

4. **Lin, H-P.** (2020, November). *Model Shift or Model Drift? Implementing Family Engagement in Taiwanese Child Welfare.* Poster Presentation at the Council on Social Work and Education the 66th Annual Program Meeting, Denver, CO.

3. **Lin, H-P.** (2017, May). *Action research on the development of Family Team Meeting (FTM) in Taichung, Taiwan*. Poster presentation at the International Conference on Practice Research, Hong Kong.

2. **Lin, H-P.** (2014, April). *Settled or Uprooted? The meaning of home and attachment to place for male minority retirees within an independent-living community*. Oral presentation at the 2014 Outstanding Social Work Dissertation and Thesis Presentation Conference, Taichung, Taiwan.

1. **Lin, H-P.** (2012, March). *The meaning of home to minority men in congregate housing.* Poster presentation at the American Men's Studies Association 20th Annual Conference, Minneapolis, MN, US.

Community Presentations

16. Lin, H-P. (2025, March). *Reaching and Serving Informal Kinship Caregivers in Washington State: An Implementation Analysis on the Lived Experiences of Informal Kinship Caregivers and Kinship Navigators*. Washington State Department of Children, Youth, and Families, WA.

15. Lin, H-P. (2025, February). *How Does It Work? Enhanced Solution-focused Kinship Navigation Case Management, Service Utilization, and the Well-being of Informal Kinship Caregivers in Washington State: A Cohort Study Using Causal Directed Acyclic Graphs (DAGs)*. Washington State Department of Children, Youth, and Families, WA.

14. **Lin, H-P.** (2024, August). *Engagement in Kinship Navigator Programs Attenuates the Sociodemographic Disparities in Patterns of Caregiving Challenges in Informal Kinship Placement in Washington State: A Latent Class Analysis*. Washington State Department of Children, Youth, and Families, WA.

13. Culquichicon, C., Issema, R, **Lin, H-P.**, & Ziemek, J. (2024, June). *Causal Mediation Effect of Escorting Peer Clients on the Effectiveness of a PrEP Delivery Intervention on PrEP Initiation*. Center for Statistics and the Social Sciences, Seattle, Washington.

12. **Lin, H-P.** (2024, May). *Finding Home: How Ethnically Diverse Older Adults Connect with Their Communities in Retirement Living: An Intersectional Life-Course Approach.* The Goldsen Institute, Seattle, Washington.

11. **Lin, H-P.** (2021, December). *Adverse Childhood Experiences of Child Maltreatment Perpetrators: Implications for Intergenerational, Trauma-Informed Interventions in the Child Welfare System.* Center for the Prevention of Domestic Violence and Sexual Assault, Taichung City Government, Taichung, Taiwan.

10. **Lin, H-P.** (2018, June). *Developing Emotional Permanency Program for aging-out youth*. Oral presentation at the National Conference on the 20th Anniversary of the Domestic Violence Prevention Act, Taichung, Taiwan.

9. **Lin, H-P.** (2018, May). *The Working Process of Family Team Meeting (FTM) and Its Cultural Underpinnings*. Center for the Prevention of Domestic Violence and Sexual Assault, Taipei City Government, Taipei, Taiwan.

8. **Lin, H-P.** (2017, October). *Service Needs and Program Development for Foster Youth in Permanency Planning.* Center for the Prevention of Domestic Violence and Sexual Assault, Taichung City Government, Taichung, Taiwan.

7. **Lin, H-P.,** & Huang, J. S. (2017, September). *The Workings and Practice Considerations of the Family Team Meeting (FTM)*. Training Course for Child-Protection Social Workers. Hsinchu City Government, Bureau of Social Welfare, Hsinchu, Taiwan.

6. **Lin, H-P.,** & Huang, J. S. (2017, August). *The Workings and Practice Considerations of the Family Team Meeting (FTM)*. Continuing Education for Child-Protection Social Workers. Yunlin County Government, Bureau of Social Welfare, Yunlin, Taiwan.

5. **Lin, H-P.** (2017, April). *The Applicability of the Family Team Meeting (FTM) to Alternative Family Dispute Resolution.* Taichung District Court, Taichung, Taiwan.

4. **Lin, H-P.** (2017, February). *The Workings of a Practice Model Fostering Kinship Care: Family Team Meeting (FTM)*. Demo Conference on Risk Assessment and Decision Making in Child Welfare. Ministry of Health and Welfare, Department of Protective Services, Taipei, Taiwan.

3. **Lin, H-P.** (2016, April). *Strategies of Family Engagement in Child Welfare*. Training Workshops for First-Year Child Protection Social Worker, Nantou, Taiwan.

2. **Lin, H-P.** (2016, March). *The Development and Workings of the Family Team Meeting (FTM) from a Cultural Perspective.* Center for the Prevention of Domestic Violence and Sexual Assault, Taichung City Government, Taichung, Taiwan.

1. **Lin, H-P.** (2015, September). *The Selection, Assessment, and Retention of Kinship Foster Caregivers.* Taiwan Fund for Children and Family. Taichung, Taiwan.

OP-ED

1. **Lin, H-P.** (2011, March). Ethnography on the Local Environmental Movement against the Kuo Kuang Petrochemical Industry Project. *Taiwan Watch Magazine, 13*(1), 35-38. https://zh.scribd.com/document/55779488/Taiwan-Watch-Magazine-V13N1

TEACHING INTERESTS & EXPERIENCE

Interests

- Core and substantive areas: Comparative Child Welfare Policy and Practice; Forensic Social Work; Human Behavior and Social Environment (HBSE); Introduction to Social Welfare Policy & Policy Practice.
- Methods/Practice: Evidence-Based Practice (EBP) and Practice-Based Evidence (PBE) for Social Work; Implementation Science in Social Work; Intervention Research; Program Development and Evaluation; Social Work Research Methods.

Experience

University of Washington

SOC WF 405A Fieldwork Seminar (BSW course), *Graduate Teaching Assistant*	09/2024-12/2024
SOC WL 573 Research Career Seminar (PhD course), *Guest Lecturer* "Lived Experience Wavering through the Qualifying Paper"	2024, February
SOC WF 410 Evidence-Based Practices for Social Welfare (BSW course), *Graduate Teaching Assistant*	01/2024-03/2024
SOC WL 599 Theory Development for Social Research (PhD course), *Guest Lecturer* "Settler Colonialism & Social Work Practice"	2023, November
SOC WL 402 Human Behavior and Social Environment (BSW course), *Graduate Teaching Assistant*	09/2023-12/2023
SOC WF 410 Evidence-Based Practices for Social Welfare (BSW course), *Graduate Teaching Assistant*	01/2023-03/2023
SOC WL 402 Human Behavior and Social Environment (BSW course), *Graduate Teaching Assistant*	09/2022-12/2022

SOC WL 599 Theory Development for Social Research (Ph.D. course), *Teaching Practicum* 03/2022-06/2022

SOC WF 410 Evidence-Based Practices for Social Welfare (BSW course), *Graduate Teaching Assistant* 01/2022-03/2022

SOC WF 320 Social Welfare Policy (MSW course), *Graduate Teaching Assistant* 03/2021-06/2021

National Taiwan University

Intervention Research Methods (PhD course), *Graduate Teaching Assistant* 02/2012-06/2012

Working with Children in Crisis (MSW course by UIUC Fulbright scholar), *Graduate Teaching Assistant* 02/2011-06/2011

Social Casework (BSW course), *Graduate Teaching Assistant* 02/2011-06/2011

Evidence-Based Social Work Interventions with Children and Adolescents (MSW course by UIUC Fulbright scholar), *Graduate Teaching Assistant* 09/2010-02/2011

Corporate Social Responsibility, Creativity and Entrepreneurship Program (Honors Program), *Graduate Teaching Assistant* 02/2010-06/2010

International Leadership Development, Creativity and Entrepreneurship Program (Honors Program), *Graduate Teaching Assistant* 09/2009-02/2010

Chinese Culture University

Introduction to Social Welfare Policy (BSW course), *Sole Instructor* 09/2016-02/2017

ADDITIONAL PROFESSIONAL EXPERIENCE

Forensic Interviewer 05/2018- present

Conduct forensic interviews in police stations or courts with suspected child victims of sexual abuse, primarily under age six, using adapted NICHD-supported protocols to elicit detailed accounts of the CSA incidents.

Center for the Prevention of Domestic Violence and Sexual Assault, Taichung City Government, Taiwan, *Project Manager* 03/2017-08/2019
Developed and led the implementation of the Family Team Meeting Model for decision-making in child placement, and the Relational Permanency Program for aging-out youth. Supervised the In-home Parenting Education Program. Organized an international training workshop on Family Group Conferencing (FGC) led by AIAN and allied supervisors. Partnered with the Industrial Technology Research Center to develop AI-driven predictive models for child placement matching.

Center for the Prevention of Domestic Violence and Sexual Assault, Taichung City Government, Taiwan, *Child Protective Services Worker* 05/2014-02/2017
Conducted child maltreatment investigations and safety assessments using the Structured Decision Making (SDM) protocol. Provided case management for ongoing services to substantiated cases and handled court-referred custody and access assessments. Received a commendation for Outstanding Performance in Crisis Intervention, with specific recognition for efforts in a missing child abuse fatality case.

Senior Independent-Living Community, Taipei City Government, Taipei, Taiwan, *Behavioral Health Specialist (Alternative Military Service)* 04/2013-04/2014
Developed and led an evidence-based music group intervention for tenants with mild dementia. Designed a quasi-experimental study to evaluate group participants' emotional and behavioral outcomes.

Taipei Veterans General Hospital, Guandu Branch, Taipei, Taiwan, *Psychiatric Social Worker (part-time)* 02/2012-11/2012
Assessed the emotional and behavioral functioning of preschoolers with ADHD as part of an early intervention team, focusing on socio-cultural and familial factors influencing symptoms. Advocated for non-pharmacologic management strategies.

Jewish Home Lifecare, the Bronx, New York City, *Social Work Intern* 06/2010-08/2010
Shadowed the Continuum of Care Model for older adults across the health status spectrum, from independent to dependent living settings.

World Vision, Taipei, Taiwan, *Social Work Intern* 02/2010-06/2010
Participated in a community sustainable development program in an Indigenous tribe. Conducted a community needs and asset assessment through oral history interviews with community stakeholders. Took field notes, created memos, and coded and analyzed qualitative data.

Taipei Veterans General Hospital, Chest Division, Taipei, *Social* 06/2008-08/2008

Work Intern
Conducted bio-psycho-social-spiritual assessments of patients in inpatient wards. Facilitated patient-provider communication and provided crisis intervention, bereavement, and grief counseling to suicidal patients and bereaved families. Conducted financial assessments and provided support services.

Lourdes Association, Taipei, Taiwan, *Social Work Intern* 02/2008-06/2008
Co-led a weekly self-help group for HIV-positive injection drug users (IDUs), conducted participant observations, and identified key themes for harm-reduction group discussions. Shadowed public health outreach efforts to prison inmates, focusing on HIV infection risks and protective measures. Managed an anonymous online consultation board, offering emotional and informational support to individuals with HIV-related concerns.

ADVANCED RESEARCH METHODOLOGY TRAINING

Causal Inference with Observational Data: Common Designs and Statistical Methods (Drs. Richard Guo & Ting Ye, UW Biostatistics, 2024)

PROFESSIONAL AND COMMUNITY SERVICE

Ad-Hoc Peer Review

Society for Research in the Child Development Biennial Meeting 2024

Society for Social Work and Research Annual Conference 2023, 2024

The British Journal of Social Work 2021, 2022, 2024 (2)

Service to the Community and Profession

Tackling Grand Challenges for Social Work: Bridging Campus and Community: A UW Social Work Approach to Supporting Our Neighbors without Housing, *Coordinator* 02/2025-05/2025

UW School of Social Work PhD Program, Doctoral Awards Committee, *Member* 09/2021-06/2022

PROFESSIONAL AFFILIATIONS & LICENSE

Affiliations

The Society for Causal Inference 2024–present

American Psychological Association	2024-present
Society for Research in Child Development (SRCD)	2024-present
The American Professional Society on the Abuse of Children (APSAC)	2021-present
Society for Social Work and Research (SSWR)	2020-present
Council on Social Work Education (CSWE)	2019-present

License

Forensic Interviewer (NICHD protocol), Taiwan	05/2018-present
Licensed Social Worker, Taiwan	12/2009-present

LANGUAGES

Taiwanese Hokkien (Native), Mandarin Chinese (Native), English (Professional)

REFERENCES

Jon Conte, PhD

Professor Emeritus, UW School of Social Work

Editor, Journal of Interpersonal Violence, and Trauma, Violence and Abuse

Consulting Editor, Journal of Forensic Social Work

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