Risk & Protective Factors for Discontinuity in Public Adoption and Guardianship

A review of the literature | January 2017

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Executive Summary

The National Quality Improvement Center for Adoption & Guardianship Support and Preservation (QIC-AG) is a national project designed to promote permanence when reunification is no longer a goal, and to improve adoption and guardianship stability, preservation, and support. The QIC-AG is working with eight states over 5 years to implement and test interventions to achieve long-term stable permanence in adoptive and guardianship homes.

To understand existing information on adoption discontinuity, QIC-AG completed a literature review to provide information to its partnering sites and the general public. The purpose of this literature review was to understand the risk factors that lead to post-permanency instability, also termed discontinuity, in adoption and guardianship to guide current and future interventions for families formed by adoption and guardianship.

Following the steps recommended by Gough, Oliver, and James (2012), a literature review was conducted following a six-step process. The research questions were determined and search terms were developed based on the research questions. A total of 77 combinations of the search terms were searched across four social science databases. Additionally, QIC-AG Professional Consortium members shared articles, books, and reports from their own collections. A total of 1,093 resources were compiled. Multiple steps were followed to screen out articles that were not within the scope of the literature review. Ultimately, 27 articles were identified that specifically identified risk and/or protective factors for discontinuity.

A number of well-known child characteristics observed before permanency have been shown to be risk factors for discontinuity, including the age of child at adoption, multiple prior placements, emotional/behavior problems, and a history of maltreatment. However, evidence also exists that these individual-level risk can be mitigated by protective factors such as the child’s placement with relatives and the development of a positive attachment and relationship with the caregiver. At the family level, evidence shows risk factors for discontinuity include caregivers who have unrealistic expectations, lack parenting skills, lack commitment, and lack parental sensitivity. Although several studies have looked at agency factors that contribute to discontinuity, the available evidence is not sufficient to identify any one factor as a clear and convincing risk. The factors contributing to discontinuity should be examined individually as well as in combination because much more research is needed in this area to better understand how to promote stable permanent placements.

The current research findings have provided preliminary information to help understand risk and protective factors for discontinuity. However, the majority of the existing research has focused on disruption or included inconsistent terms and samples; thus, limiting the conclusions that can be drawn specific to discontinuity risks. Additionally, some factors are not well researched or the findings have been mixed, leaving it unclear whether the factor is a risk or protective factor for discontinuity.
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Introduction

Over the past several decades, the U.S. child welfare system has focused on the safe movement of children out of foster care. When reunification of a child with his or her family-of-origin is no longer an option, the preferred permanency options are adoption or guardianship. Once adoption or guardianship has been finalized, there is an assumption that these families will live “happily ever after” (Hanna, Tokarski, Matera, & Fong, 2011). However, research has shown that the commitments made at the time an adoption or guardianship was finalized can become strained over time, resulting in instability, or discontinuity in care, for some children (Rolock, 2015; Rolock & White, 2016; Testa, Snyder, Wu, Rolock, & Liao, 2015). Although the majority of children do not experience discontinuity (Child Welfare Information Gateway, 2012; Festinger, 2002; McDonald, Propp, & Murphy, 2001; Rolock, 2015), for those who do, discontinuity can have significant consequences for children who have already experienced the trauma of maltreatment and separation from primary caregivers. To provide more information on the issue of adoption and guardianship, this literature review sought to provide a better understanding of both the risk factors related to discontinuity and the protective factors that might decrease the likelihood of discontinuity.

Post-Permanency Discontinuity Defined

This review uses the term discontinuity to describe instability that occurs after an adoption or guardianship has been finalized (Rolock, 2015; Rolock & White, 2016; Testa et al., 2015). Although this definition of discontinuity is relatively new to the child welfare field, it is important to understand the distinction between discontinuity and other terms used in the literature. The literature has used terminology inconsistently, and much of the early research on adoption breakdowns did not distinguish between pre- and post-finalization breakdowns. The terms used to describe adoption breakdowns include disruption, dissolution, post-adoption placement displacement—and more recently—discontinuity and unregulated custody transfers. In short, disruption refers to situations where a child is placed or matched with an adoptive parent or guardian but the placement ends before being legally finalized. In contrast, the situation in which an adoption or guardianship ends after being legal finalized has been variously referred to as dissolution, post-adoption placement displacement, discontinuity and unregulated custody transfers (for additional information, see Rolock, 2015; Rolock & White, 2016; U.S. Department of Health and Human Services, n.d.).
Although discontinuity refers to situations post-permanence, we acknowledge that events before legal permanence impact the long-term trajectories and experiences of children and families. For instance, research has clearly established that placement instability is harmful to the well-being of children in foster care; when children change placements, they might experience rejection by a caregiver and suffer the loss of a familiar social environment and their relationships within that environment. In turn, these experiences can lead to poor outcomes, including low educational achievement, mental health issues, and behavior problems (D’Andrade, 2005). The impact of these experiences does not disappear when an adoption or guardianship is finalized. Many factors that impact post-permanency instability are related to a child’s experiences prior to legal permanence. For example, the risk of discontinuity is influenced by pre- and post- permanence factors such as the number of placements a child had before legal permanence and whether the child was placed with biological siblings after legal permanence (Rolock & White, 2016). Understanding the nuances of these risk factors is important in designing programs and policies that prevent discontinuity and promote family stability. Finally, more of the research efforts have focused on the goal of achieving legal permanence than on sustaining legal permanence. Therefore, although the primary focus of this review is post-permanency discontinuity, the discussion in this paper also addresses the pre-finalization correlates of instability because these factors are likely to have long-lasting effects on families.

**METHODS OVERVIEW**

Given the scant research that has examined post-permanency stability, this review includes studies in which the legal status of the adoption is unclear and/or studies in which the researchers used the term *adoption disruption/dissolution*. The goal of this review was to examine the research on risk and protective factors that contribute to discontinuity; as such, including this broader range of articles seemed prudent even though the studies might not have included a direct measurement of discontinuity.

A thorough search of the literature published between 1990 and March 2016, yielded the final sample of 27 articles included in this review. These articles are mapped to specific risk and protective factors (see chart located in Appendix A) and categorized as occurring before or after permanence. A detailed overview of our review methods is presented in Appendix B. The child welfare literature contains many articles that identify risk factors for child well-being, examine long-term outcomes for children in the foster care system, or the outcomes of children in permanent placements achieved through adoption or guardianship. Although these articles discussed pertinent issues, the majority did not include direct empirical research regarding risk to placement discontinuity, and therefore, these articles were excluded from our review. These non-empirical articles were also excluded from the chart in Appendix A because that chart was intended to highlight the research conducted over the last 26 years that has focused solely on risk and protective factors for discontinuity. In addition to the 27 articles that met the criterion of primary research, this review cites other studies and sources that either support the research evidence for certain factors or elucidates the impact of risk or protective factors. These non-empirical but important sources are included in the References section.
Child Factors

A substantial amount of research has examined numerous child factors as risk factors for disruption (i.e., a placement ends before being legally finalized), but only recently have researchers begun to examine how these same factors impact discontinuity (i.e., an adoption or guardianship ends after being legal finalized). Given that the literature on discontinuity specifically is just emerging, we discuss these factors in terms of their potential impact on post-permanency stability using research that also uses terms disruption and dissolution.

AGE

The child’s age at the time of placement is the most-studied child characteristic, with research documenting its impact beginning in the 1980s (Smith, Howard, Garnier, & Ryan, 2006). In Barth and Berry’s (1988) well-known study conducted in the late 80s, they found adoption rates for children younger than 5 years old started at 5% and progressively increased to 26% for youth up to 18 years old. However, Barth and Berry found the average rate of adoption disruption for adolescents was almost doubled that of the younger children.

A more recent study of child age as a risk factor was carried out in the United Kingdom. In 2005, Dance and Rushton published the results of a longitudinal prospective study on older children placed with unrelated adoptive families. At the time of placement, the children in the study were between ages 5 and 11 years. The study findings showed one of the significant predictors of discontinuity for these children was child age at placement, with the likelihood of post-permanency instability increasing with older age of the child at placement (Dance & Rushton, 2005). This finding was supported by a very recent study from the United Kingdom that reported the risk of discontinuity increases as the child ages (Selwyn, Wijedasa, & Meakings, 2014). In Selwyn and colleagues’ study, the child age risk factor for discontinuity was shown to impact very young children. Specifically, this research showed a child aged 1 to 2 years at time of placement had a threefold risk of discontinuity as compared with children younger than 1 year; for children aged 2 to 4 years at time of placement, the risk was twofold as compared with children younger than 1 year; and for children older than 4 years, the risk for discontinuity was 13 times greater than children younger than 1 year (Selwyn et al., 2014).
Interestingly, research on child age as a risk factor has given more attention to the child’s age at entry into foster care and placement than the child’s age when discontinuity occurs. However, the research has suggested that based on current age, older children, particularly teenagers, have higher rates of discontinuity compared with younger children. For instance, Rolock and White (2016) examined a sample of more than 50,000 children and found that for the 13% that experienced discontinuity, their average age was 13 years old. Likewise, Selwyn and her team in the UK reported similar findings in their sample, with nearly two-thirds of discontinuity occurring for children in the teenage years (Selwyn et al., 2014).

**Behavioral issues**

Although age is historically the most researched risk factor, child behavioral issues has garnered increasing research attention and more support in the literature as an important risk factor for discontinuity. Behavioral issues have been shown to be a risk factor for both pre-permanency disruption and post-permanency discontinuity, as well as emerging as a risk factor in kinship and guardianship placements (Dance & Rushton, 2005; Hall Grossett, 2005; Liao & White, 2014; Randall, 2013; Rosenthal & Groze, 1990; Smith et al., 2006; Terling-Watt, 2001). Research evidence has also shown that the greater the number and severity of child behavioral problems, the higher the risk of discontinuity (Smith et al., 2006).

Quite recently, a U.K. researcher took an in-depth look at 10 years of placement instability that occurred before or after legal permanence (Randall, 2013), and found that for either group, the reasons for discontinuity often included behavioral issues, including aggression and sexualized behavior (Randall, 2013). This research correlates with other studies that identify externalizing behavior problems such sexual acting out and physical aggression as risk factors for adoption disruption (Smith et al., 2006). Other behaviors such as hyperactivity have also been identified as risk factors for discontinuity (Dance & Rushton, 2005).

Behavioral problems are also significant risk factors for guardianship discontinuity (Liao & White, 2014; Smith et al., 2006; Testa et al., 2015). In one of the few post-permanency studies of disruption risks in kinship families, researchers rated behavior issues on the Behavior Problem Index, and found that behavioral issues were so strongly associated with discontinuity that for every one-point increase on the Behavior Problem Index score, the risk for discontinuity increased by 11.4% (Liao & White, 2014). Similarly, Testa and colleagues (2015) recently examined the risks associated with adoption and guardianship post-permanency discontinuity, and found children with multiple behavior problems were more likely to experience discontinuity, and the presence of such behavioral problems increased the likelihood of discontinuity if the caregiver had already thought about ending the adoption or guardianship.

Research seems to agree that behavior issues are not only a significant and sometimes primary risk factor for discontinuity but also can considerably impact children and family adjustment (Rosenthal & Groze, 1990; Smith et al., 2006). Moreover, the risk factor of child emotional issues appears to parallel child behavioral issues. It is more common to see emotional and behavioral problems go hand-in-hand with older children and disruption before adoption or
guardianship (Berry & Barth, 1990). Co-occurring emotional and behavioral problems are not surprising because many children in the child welfare system have a history of trauma, and the longer they remain in the system, the higher their risk for emotional problems. However, older children are not always in care for long periods of time and thus, older age and length of time in care are not necessarily interchangeable when looking at risk factors.

Additional research looked at family functioning among two groups of adopted families: those who had adopted children with histories of neglect and those who adopted children with histories of physical and sexual abuse. This research found that the families whose adopted children had histories of physical and sexual abuse reported lower levels of family functioning, (Erich & Leung, 2002).

Other child behavioral issues that increase the risk for discontinuity include substance use and criminal/delinquent behavior. A child with substance abuse issues and adolescent criminal behavior has a much higher risk of his/her permanent placement dissolving (Dickson, Heffron, & Parker, 1990; Hartinger-Saunders, Trouteaud, & Matos Johnson, 2015). The increased risk for discontinuity is also true for children who have a history of psychiatric hospitalization or those that have to be hospitalized after adoption or guardianship is finalized (Dickson et al., 1990; Festinger, 2002; Rosenthal & Groze, 1990).

NUMBER OF PRIOR PLACEMENTS
The number of pre-adoptive placements a child has experienced has been linked to poor outcomes for that child, including a higher risk of discontinuity (Brodzinsky, 1993; Rosenthal & Groze, 1990). This risk factor has been consistently studied in the literature, including two recent studies that looked specifically at risk factors for post-permanency discontinuity. In both studies, the number of prior placements was found directly related to higher risk of discontinuity (Rolock & White, 2016; Selwyn et al., 2014). This risk factor might be connected to age of child as well given that a young child who is adopted has usually experienced fewer foster care placements, and thus, usually displays fewer adjustment issues. In contrast, children adopted at older ages who have been through multiple foster homes will bring these experiences with them as they enter a new adopted family. These prior placement (frequently negative) experiences influence the way these children see the world, family, and themselves (Haugaard & Hazan, 2003). As such, these multiple placements negatively impact children’s attachment and increase the likelihood of developmental and behavioral problems (Groze, 1992).

LENGTH OF TIME IN OUT-OF-HOME CARE
Along with prior placements, a number of studies support longer times in out-of-home care as a risk factor for both disruption and discontinuity (Dance & Rushton, 2005; Henry, 1999; McDonald, Lieberman, Partridge & Hornby, 1991; Rosenthal & Groze, 1990; Selwyn et al., 2014). However, contradictory findings were reported by Smith and colleagues (2006) based on their study with a sample of more than 15,000 children that showed disruption risk was decreased if the child had been in foster care a longer period. In fact, the disruption rate was highest for the children who had been in care for less than one year before adoption (Smith et al., 2006).
Similarly, findings for positive aspects of time in foster care were reported in Rolock and White’s (2016) study of post-permanency discontinuity, in which the researchers tracked more than 51,000 children in Illinois who exited foster care to adoptive and guardianship placements. Their data indicated that longer times in foster care actually served as a protective factor against discontinuity. Specifically, children who spent 3 or more years in foster care had a 14% lower risk of discontinuity as compared with children who spent less than 3 years in care (Rolock & White, 2016). The authors suggested that this finding might reflect the added time pre-adoptive families were afforded for support and guidance, and that this additional time pre-permanence might have resulted in a stronger level of attachment and bonding between child and family members (Rolock & White, 2016).

**PRIOR MALTREATMENT**

Sexual and emotional abuse have been the most thoroughly researched types of maltreatment, and found to be associated with the highest risk of discontinuity (Hall Grossett, 2005; Rosenthal & Groze, 1990; Smith et al., 2006). In one such study, Nalavany and her team (2008) collected data from the parents of 117 adopted children, who were receiving post-adoptive services in Illinois (2008). They discovered that pre-adoptive child sexual abuse significantly increased a child’s risk of discontinuity by a factor of four, as well as increased the chances of having four or more moves in care by a factor of 10 (Nalavany, Ryan, Howard, & Smith, 2008). These researchers also found that adopted children with a history of child sexual abuse were 3 times more likely to have an adoptive parent whose commitment to permanence was inconsistent (Nalavany et al., 2008). However, Nalavany et al.’s study included only parents who actively sought help, and thus, has limited generalizability.

In another study, when compared with other types of maltreatment, adopted children who had experienced sexual and emotional abuse prior to legal permanence had the highest rates of discontinuity (Smith et al., 2006). A U.K. team that looked at children adopted in middle childhood discovered that emotional abuse, specifically preferential rejection, significantly increased a child’s risk of adoption disruption (Dance & Rushton, 2005). Research has suggested that parents who adopt children with histories of sexual and emotional abuse should be given more support, specifically additional pre- and post-adoption support tailored to dealing with the behaviors and emotional issues that children who have experienced these types of trauma might display (Nalavany et al., 2008).

**ATTACHMENT**

Maltreatment prior to legal permanence can also contribute to attachment issues, which is recognized as a distinct risk factor for discontinuity (Dance & Rushton, 2005; Hall Grossett, 2005; Rushton, Dance, & Quinton, 2000). It is hypothesized that pre-adoptive placement history affects children’s ability to form attachments to others and these attachment issues might be responsible for discontinuity (Hall Grossett, 2005). This notion regarding the importance of attachment is a relatively new area of investigation, which is gaining ground in the research literature. In one study carried out in Chicago, researchers examined predictors of reunification, adoption, and guardianship for adolescents in the foster care system (Leathers, Falconnier, &
Spielfogel, 2010). Although the researchers had expected to find that behavior problems predicted whether a child achieved permanence, they were surprised to instead find a significant association between permanency outcomes and the strength of the adolescents’ relationships with their caregiver. For example, a strong relationship between an adolescent and his or her mother was found to be a strong predictor for both reunification and guardianship (Leathers et al., 2010). The researchers concluded their findings supported the notion that older youth, regardless of their behavior problems, who have the ability to form strong relationships or attachments with new caregiver should be considered as more viable adoption candidates (Leathers et al., 2010).

Given such evidence, attachment can be seen as both a risk and protective factor for discontinuity. Attachment starts at birth and children’s experiences with their first caregivers create an internal template for relationships, influencing how the person interacts with and interprets the behaviors and feelings of self and others (Groze, 1992). Needless to say, foster children’s early attachment experiences influence how they attach to new caregivers, including their adoptive family. The research that has been conducted with foster children indicates children in foster care are most likely to have higher incidence of insecure attachment than children in the general population. Moreover, although only a small body of research, the available evidence suggests that a child’s insecure attachment is linked to poor outcomes, including emotional, behavioral, and social difficulties (Dozier, Stovall, Albus, & Bates, 2001). Children cannot go back and change their initial attachment experiences, but research has given caregivers hope by showing evidence of older children’s ability to securely attach to adoptive parents, and the possibility of moving from insecure to secure attachment with the help of sensitive caregiving (Steele, Hodges, Kaniuk, Hillman, & Henderson, 2003). Sensitive caregiving (i.e., being able to attune and respond to children’s emotional states/needs) has been established as a primary component in secure attachment (Beijersbergen, Juffer, Bakermans-Kranenburg & van Ijzendoorn, 2012). Maltreated children who are placed with insensitive foster parents have an increased risk of placement breakdown (Dozier et al., 2001; Steele et al., 2003). Other studies support the notion that the parents themselves influence their child’s attachment status. For instance, adolescent adoptees attachment has been shown to be related to parents’ level of satisfaction with both the relationship and their own lives (Erich, Kanenberg, Case, Allen, & Bogdanos, 2009).

**RACE**

Until recently, only two studies had been conducted in the past decade that found race influenced discontinuity; specifically, that being White might be a protective factor against adoption discontinuity, as compared with being African American (Berry, Propp, & Martens, 2007; Smith et al., 2006). Indeed, most studies have not found an association between race and risk of discontinuity (McDonald et al., 1991; Terling-Watt, 2001). However, the race/ethnicity risk factor might warrant further investigation because a recent study that focused solely on post-permanency discontinuity found African American children were at higher risk for discontinuity than children of other race/ethnicities (Rolock & White, 2016). However, the authors noted that their findings were unclear whether a causal link existed given the disproportionate number of African American children in foster care.
SIBLING PLACEMENT
The research literature of the almost past 50 years (as far back as the 1970s) has reported mixed results regarding whether placement with siblings is a risk factor for disruption (Smith et al., 2006). Despite this history of mixed findings, little research exists on sibling placement and discontinuity, and this situation has not changed significantly in recent years. Some of the more recent research has shown that being placed without siblings increases the chances of disruption (Rushton & Dance, 2004; Rushton et al., 2000). However, another study has shown that being placed without siblings could be a protective factor that reduces the risk for disruption (Smith et al., 2006). Additionally, one study provided evidence that being placed with four or more siblings is a risk factor for discontinuity, whereas being placed with fewer than four siblings might be a protective factor (Smith et al., 2006). Only one study has examined sibling placements as a factor affecting discontinuity. Rolock and White (2016) found that being placed with siblings in their permanent adoptive or guardianship home was a protective factor against discontinuity.
Family Factors

Research supports the idea that the *caregiving environment*, that is, the combination of family characteristics and parenting behavior, can be both a risk and protective factor for children in adoptive and guardianship placements. It makes sense that children who have emotional and behavioral problems affect the functioning of their family because the needs of these children and the associated stress can overwhelm a family’s capacity to cope (Crea, Barth, Guo, & Brooks, 2008). Children living with adopted families or with a guardian frequently have histories of trauma and exposure to stressors prior to adoption or guardianship. Foster children have experienced stressors such as prenatal substance exposure, abuse, neglect and multiple placements. All of these factors increase the risks for later emotional and behavioral problems (Ji, Brooks, Barth, & Kim, 2010). However, children’s development and functioning are also influenced by their environment and their family. Successful adoptions and guardianships are most likely the result of a combination of child factors and the caregiving environment.

**CAREGIVER DEMOGRAPHICS**

Several demographic features of adoptive or guardianship caregivers have been identified as both risk and protective factors for discontinuity. Among these, caregiver marital status is one of the most researched factors. Multiple studies have found that married caregivers appear to be a protective factor against discontinuity (Liao & White, 2014; McDonald et al., 1991; Testa et al., 2015; Westhues & Cohen, 1990). In 2015, Testa and colleagues conducted a moderated mediation analysis of predictors of post-permanency discontinuity, which shed light on how marriage might be a protective factor. This team of researchers discovered that lone, unmarried, and distantly related to the child (e.g., cousins) caregivers had the highest likelihood of post-permanency discontinuity (Testa et al., 2015). In other words, the authors suggested that caregivers who are married, closely related to the child (e.g., grandparent, aunt or uncle) might serve as a protective factor against discontinuity. Other demographic factors have shown minor support as a risk factor for discontinuity such as the caregivers’ higher education of caregivers, a primary caregiver who works full-time, and caregivers who are of an older age (Berry & Barth, 1990; Barth et al., 2007; Terling-Watt, 2001). In one study, the researchers noted that being an older caregiver was a protective factor against disruption for adolescents (Berry & Barth, 1990). However, little evidence is available regarding these last few demographic factors, and further investigation is warranted.
CAREGIVER CHARACTERISTICS

A number of caregiver traits, characteristics, and behaviors have been examined as risk or protective factors for discontinuity. One factor with conflicting evidence is whether a “new to the child” caregiver poses a larger risk to discontinuity than a foster parent with whom the child has had a relationship. Early studies found evidence that being a new caregiver to the child increased the risk of adoption disruption (Berry & Barth, 1990; Rosenthal & Groze, 1990). However, research conducted in the United Kingdom has found no significant differences in discontinuity for children who were in foster homes before adoption as compared with those who were not in foster homes prior to adoption (Selwyn et al., 2014). These studies were only looking at adoption disruption before legal permanence; therefore, more research is needed using discontinuity data to truly clarify this risk.

A few studies have found that caregivers who have unrealistic expectations of the child or the adoption experience have an increased risk of discontinuity (Randall, 2013; Rosenthal & Groze, 1990; Terling-Watt, 2001). This finding means that even when child welfare workers inform the prospective parents about the problems, challenges, and difficulties they might encounter with the child or adjusting as a family, these caregivers still harbor an idealized view of the child or have unrealistic expectations about their own abilities (Rosenthal & Groze, 1990). This unrealistic view can be particularly true for relative placements, where the caregiver is sometimes given less information, training, and support than a caregiver without a previous relationship with the child (Terling-Watt, 2001). Rolock and White (2016) report that about 2% of families have experienced discontinuity at 2 years after finalization, 6% at 5 years, and 12% at 10 years post-finalization. This discontinuity trend suggests that a decade or more may have passed between the finalization and when caregivers’ capacity is challenged by the child’s behaviors and needs, and when such challenges arise, the information about resources and help provided to families at the time of finalization is likely to be out of date or might be forgotten. Therefore, the research suggests that perhaps periodic reminders of the services and supports available to families might help provide families with relevant information and access to resources in the time of need. Other factors shown to have some minor support as risks for discontinuity include lack of parenting skills, caregiver with poor mental or physical health, and the death of a caregiver in the home (Randall, 2013; Rolock, 2015; Rosenthal, 1993; Terling-Watt, 2001).

Two caregiver characteristics have garnered new evidence as additional risk factors for discontinuity: a lack of caregiver commitment, and a lack of parental sensitivity. A study of late-placed adopted adolescents (i.e., placed in middle childhood or later) found among the families with disrupted adoptions, 40% of the caregivers had often thought about ending the placement and those thought were always connected to how difficult they perceived the children’s behavioral problems (Rushton & Dance, 2004). Testa and colleagues (2015) confirmed past findings on caregiver commitment and discontinuity, showing that a caregiver’s rating of the severity of a child’s behavioral problems was an important predictor of the risk for discontinuity. However, Testa et al.’s (2015) study found that the risk was mediated by the extent to which the severity of the behaviors was associated with caregivers’ thoughts of ending the permanency relationship.
The second characteristic, parental sensitivity, is connected to attachment theory and is related to a caregiver’s ability to attune and connect emotionally to their child, thus enhancing the attachment (Dance & Rushton, 2005). In a study of children adopted in middle childhood, placement disruption was significantly associated with a lack of parental sensitivity (Dance & Rushton, 2005; Rushton et al., 2000). Rushton’s team found that when caregivers expressed parental sensitivity, they were more likely to be able to manage the child’s difficult behaviors (Rushton et al., 2005). This finding led the team to theorize that perhaps it is not the behaviors themselves that are the risk factors for discontinuity, but how well the parent–child relationship is managed and the quality of the attachment relationship (Rushton et al., 2000). Given the child’s own attachment history and the risk factors associated with that history, which the child brings into the relationship with their new adoptive or guardianship family, this new research underscores that caregivers can exacerbate risk or provide a protective mechanism through parental sensitivity.

**PLACEMENT WITH RELATIVES**

Over the past decade, there has been a dramatic increase in placements of foster children with kin, and in turn, a rapid increase in research designed to explore whether placement with relatives is a risk factor for discontinuity. A number of recent studies have shown no differences in discontinuity risk for adoption or guardianship placements between kin versus non-kin caregivers (Howard, Livingston-Smith, Zosky, & Woodman, 2006; Liao & White, 2014). In fact, most of the studies on relative placements have added to the literature supporting relative placements as protective against both disruption and discontinuity (Selwyn et al., 2014; Smith et al., 2006; Terling-Watt, 2001; Testa, 2001). Much of the research suggests that the closer the biological tie between caregiver and child, the better the chance for a long-lasting stable placement, with placement with grandparents appearing the most protective against discontinuity (Lutman, Hunt, & Waterhouse, 2009; Testa, 2001; Testa et al., 2015).

**OTHER FAMILY FACTORS**

Although a few other family factors have been considered in only limited research, these factors provide interesting information and insight into risk and protective factors for discontinuity. For instance, some research has indicated the amount and quality of the adoptive father’s involvement with his children serves as a protective factor against discontinuity (Rosenthal & Groze, 1990; Westhues & Cohen, 1990). Other research has suggested that for relative permanent placements, contact with the biological family can be a risk factor for discontinuity (Terling-Watt, 2001). Finally, although limited, some research has shown having other children in the home is a risk for discontinuity. However, more research is needed to truly understand the impact of other children on the family dynamics of an adoptive family and how the roles of other children might affect risk of discontinuity. For example, having another biological or adopted child in the home with the newly adopted child has been found to be a risk factor for disruption and discontinuity (Berry & Barth, 1990; McDonald et al., 1991; Rushton & Dance, 2004). On the other hand, having a foster child in the home has been shown to be protective factor against discontinuity (Berry & Barth, 1990). These nuances need additional
research to confirm and explain the dynamics at play between discontinuity and other children in the family.

A few family factors have not been researched with regards to risk for discontinuity, but have been studied with regards to post-adoptive adjustment. Given these interesting findings, it would be useful for future discontinuity research to consider such factors, especially given the importance of attachment and quality of the parent–child relationship in preventing discontinuity. One of these factors was recently highlighted by Ji and colleagues (2010), who examined data from a sample of 385 adoptive families in California. Because the family itself has the greatest impact on children’s health and well-being, these researchers examined the adoptive family’s score on the Family Sense of Coherence (FSOC) measure, which assesses a family’s ability to understand their experiences and use resources available to facilitate healthy interactions and family growth. In some ways, the FSOC appears to measure family resilience and the ability to overcome stress. Although results indicated a significant relationship between adopted child characteristics (e.g., behavior problems, maltreatment history) and adoptees psychosocial adjustment and functioning, the FSOC had a greater impact on both current child behavior and depressive symptoms than the pre-adoptive risk factors (Ji et al., 2010). This study provides evidence that a family’s ability to respond to stress can moderate the effects of a child’s history of maltreatment. Additionally, Ji et al.’s study points to the importance of helping families build their capacity to cope with such stresses to prevent discontinuity.

Given the weight placed on risk of child behavior problems, it is important to note that a growing body of evidence shows the most consistent predictor of children’s behavior problems is the parent–child relationship (Groze & Ryan, 2002). In one longitudinal study of 672 adopted adolescents, Klahr, McGue, Iacono, and Burt (2011) discovered that parent–child conflict predicted the development of conduct disorder, but the presence of conduct problems did not predict parent–child conflict. This finding provides more evidence that, despite child risk factors, the parent–child relationship has a critical impact on children’s emotional and behavioral development. Clearly a number of family protective factors have not yet been fully explored in the discontinuity research and further examination of these factors is warranted.
Agency Factors

Overall, only limited research is available regarding the effectiveness of post-adoptive services (Berry et al., 2007; Dhami, Mandel, & Sothmann, 2007). Indeed, the need for post-adoptive services has come to light only within the past decade or so, recognition that emerged as increasing numbers of children were adopted out of foster care. Although well recognized that the trauma these children have experienced does not vanish once the child is adopted, many families are just starting to reach out more for help. Post-adoptive and guardianship services are meant to promote permanence and improve family functioning (Berry et al., 2007). What research has been conducted on post-permanency services indicates that most families did not even seek such services until 5 to 7 years post-adoption; and when families do seek services, they are seeking help because of child behavior problems or parent–child conflict (Avery, 2004). Results from a few studies suggest services modeled after intensive family preservation services or in-home services are the most successful at preventing adoption disruption; however, these findings are based on small samples and nonexperimental studies (Berry et al., 2007).

INADEQUATE SUBSIDY

Over the years, the most researched agency factor has been the risk of discontinuity due to inadequate subsidy for the adoptive or guardianship placement (Berry & Barth, 1990; Festinger, 2002; Terling-Watt, 2001; Testa, et al., 2015). Although most of the research provides support that inadequate subsidy is indeed a risk factor, Testa and colleagues (2015) offered a more nuanced explanation that warrants further examination. In their study of discontinuity, Testa’s team found that a caregiver’s perception of the adequacy of the subsidy amount moderated the effect of their thoughts of ending the permanency relationship (Testa et al., 2015).

OTHER FACTORS

A handful of other agency factors have been examined and have some evidence showing they are risk factors for discontinuity. These factors include caregivers receiving inadequate child information before placement, inadequate preparation and training both before and after legal finalization of adoption or guardianship, and inadequate support in general (Festinger, 2002; Randall, 2013; Terling-Watt, 2001). In addition, some evidence exists for other protective factors against discontinuity, including having a caseworker with more years of experience, and availability of pre-adoption support services and some post-adoption support services (Berry et
al., 2007; Hartinger-Saunders et al., 2015; Houston & Kramer, 2008; McDonald et al., 1991). However, as previously mentioned, our understanding of discontinuity is hampered by the overall lack of research regarding agency factors and how they contribute to discontinuity risk. It is these factors, in particular, that need to be more thoroughly explored before drawing any conclusions as to which agency factors reliably function as risk or protective factors.
Discussion

LIMITATIONS
This literature review provides a summary of risk and protective factors for discontinuity that exist before and after legal permanence. However, certain limitations are inherent in the methods and must be considered when interpreting the findings of this review. Although we were thorough in our literature search, it might be that our combination of search terms did not yield all potential articles. However, we are confident that this research identified the vast majority of relevant literature because our search of databases was supplemented with articles, documents, and reports identified by the members of the QIC-AG Professional Consortium and the QIC-AG Partners.

CONCLUSION
The purpose of this review of the literature was to examine risk factors for discontinuity as well as factors that ameliorate risk and prevent discontinuity. Our findings suggest that some information is available to help understand risk and protective factors for discontinuity. However, the majority of prior research has focused on disruption or uses terms and samples in a way that limit conclusions specific to discontinuity. Moreover, some factors have not been well researched or the existing research has yielded mixed findings and unclear evidence, making it premature to conclude whether the factor is a risk or protective factor for discontinuity.

We found a number of well-known child characteristics observed before permanence show clear evidence as risk factors for discontinuity. These characteristics include the age of child at adoption, the presence or severity of emotional and/or behavioral problems, history of maltreatment, and history of multiple placements. Protective factors that appear to mitigate these risks include placement with relatives and having a positive attachment and relationship to the caregiver. A number of other child characteristics have unclear status as a risk factor given the contradictory research regarding their risk. These characteristics include the amount of time a child has been in out-of-home care, race/ethnicity, and placement with siblings. These
factors should not automatically be assumed to be risk factors for discontinuity because more research is needed to fully understand the effects and direction of these characteristics.

Our review found a number of family factors that also have convincing evidence of being risk factors for discontinuity, including caregivers who have unrealistic expectations of the child or themselves, caregivers’ lack of parenting skills, caregivers’ lack of commitment, and caregivers’ lack of parental sensitivity. Although a fair amount of research has examined the risk of being a “new parent” to an adopted or guardianship child, the research is generally contradictory. Therefore, more research is needed before drawing any conclusion about how new parent status might affect discontinuity. Finally, a few family factors appear to be protective factors against discontinuity, including caregivers who are married and caregivers who are a relative of the child (and the closer the biological tie to the child, the better).

Although a number of studies have examined agency factors for discontinuity, the existing evidence is insufficient to recommend any one factor as a clear and convincing risk. These factors should be examined individually as much more research in this area is needed.

Perhaps one way to use this information on risk factors is to aid in the development of strategies to help protect against discontinuity. Overall, many opportunities exist to build resilience and promote protective factors by providing adoptive and guardianship caregivers with training and support related to better understanding traumatized children, having realistic expectations, and helping children and their adoptive and guardianship caregivers problem-solve challenging behaviors and build successful relationships and attachments.
The matrix in Appendix A includes only the list of articles that met our inclusion criteria; however, there were additional contextual pieces that were used to supplement ideas articulated in the text. This reference list contains all sources cited in this text. References with a ‘*’ next to them denotes that they were included in the 27 articles found in Appendix A.


# Table 1. Risk and Protective Factors for Discontinuity Identified in 27 Research Studies

<table>
<thead>
<tr>
<th>Child Factors</th>
<th>Factors prior to permanence*</th>
<th>Factors that occur after permanence*</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Number of placements</strong></td>
<td>Risk factor 3, 4, 7, 14, 18, 19, 22</td>
<td></td>
</tr>
<tr>
<td><strong>Older age</strong></td>
<td>Risk factor 2, 3, 4, 9, 13, 14, 19, 22, 23</td>
<td>18, 22</td>
</tr>
<tr>
<td><strong>Race</strong></td>
<td>Risk factor 2, 18, 23</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Not significant 22, 14</td>
<td></td>
</tr>
<tr>
<td><strong>Placement with no siblings</strong></td>
<td>Risk factor 20, 21</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Protective factor 23</td>
<td></td>
</tr>
<tr>
<td><strong>Placement w/siblings</strong></td>
<td>Risk factor 23</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Protective factor 18</td>
<td></td>
</tr>
<tr>
<td><strong>Children placed in group/res care</strong></td>
<td>Protective factor 23</td>
<td></td>
</tr>
<tr>
<td><strong>Substance abuse issues</strong></td>
<td>Risk factor 5, 7, 8</td>
<td></td>
</tr>
<tr>
<td><strong>Emotional issues</strong></td>
<td>Risk factor 7, 14, 23</td>
<td>1, 19, 24</td>
</tr>
<tr>
<td><strong>Behavioral issues</strong></td>
<td>Risk factor 7, 14, 23</td>
<td>2, 4, 5, 9, 12, 16, 19, 20, 21, 24, 26</td>
</tr>
<tr>
<td><strong>Juvenile Delinquency</strong></td>
<td>Risk factor 7, 17</td>
<td></td>
</tr>
<tr>
<td><strong>Attachment issues</strong></td>
<td>Risk factor 4, 20</td>
<td></td>
</tr>
<tr>
<td><strong>Physical abuse</strong></td>
<td>Risk factor 7, 14, 19</td>
<td></td>
</tr>
<tr>
<td><strong>Sexual abuse</strong></td>
<td>Risk factor 15, 19</td>
<td></td>
</tr>
<tr>
<td><strong>Emotional abuse</strong></td>
<td>Risk factor 4, 14, 20</td>
<td>14, 23</td>
</tr>
<tr>
<td><strong>History of abuse and/or neglect</strong></td>
<td>Risk factor 2, 3</td>
<td></td>
</tr>
<tr>
<td>Physical disabilities</td>
<td>Risk factor</td>
<td>23</td>
</tr>
<tr>
<td>---------------------------------------------</td>
<td>-------------</td>
<td>----</td>
</tr>
<tr>
<td>Entered care due to Neglect</td>
<td>Risk factor</td>
<td>23</td>
</tr>
<tr>
<td>Length of time in out-of-home care</td>
<td>Risk factor</td>
<td>4, 9, 14, 19, 22</td>
</tr>
<tr>
<td></td>
<td>Protective factor</td>
<td>18</td>
</tr>
<tr>
<td>Psychiatric hospitalization</td>
<td>Risk factor</td>
<td>6, 19</td>
</tr>
<tr>
<td></td>
<td>Protective factor</td>
<td>5</td>
</tr>
<tr>
<td><strong>Family Factors</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>New parent (vs foster parent)</td>
<td>Risk factor</td>
<td>1, 19</td>
</tr>
<tr>
<td></td>
<td>Protective factor</td>
<td>22</td>
</tr>
<tr>
<td>Quality of relationship to child</td>
<td>Risk factor</td>
<td>20, 21</td>
</tr>
<tr>
<td>Lack of social support from friends/relatives</td>
<td>Risk factor</td>
<td>16, 19</td>
</tr>
<tr>
<td>Unrealistic expectations</td>
<td>Risk factor</td>
<td>16, 19, 24</td>
</tr>
<tr>
<td>Higher education of caregivers</td>
<td>Risk factor</td>
<td>1</td>
</tr>
<tr>
<td>Married caregivers</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Protective factor</td>
<td>12, 14, 26, 27</td>
</tr>
<tr>
<td>Primary caregiver works full-time</td>
<td>Risk factor</td>
<td>2</td>
</tr>
<tr>
<td>Parenting skills</td>
<td>Risk factor</td>
<td>2, 16, 19</td>
</tr>
<tr>
<td>Caregiver sensitivity</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Protective factor</td>
<td>4, 20</td>
</tr>
<tr>
<td>Caregiver commitment</td>
<td>Risk factor</td>
<td>20, 26</td>
</tr>
<tr>
<td>Caregiver physical/mental health</td>
<td>Risk factor</td>
<td>24</td>
</tr>
<tr>
<td>Placement with relatives</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Protective factor</td>
<td>22, 23</td>
</tr>
<tr>
<td></td>
<td>Non-significant findings</td>
<td>24, 25</td>
</tr>
<tr>
<td></td>
<td>Protective factor</td>
<td>22, 23</td>
</tr>
<tr>
<td></td>
<td>Non-significant findings</td>
<td>24, 25</td>
</tr>
<tr>
<td></td>
<td>Protective factor</td>
<td>9, 11, 12</td>
</tr>
<tr>
<td>Closer biological relationship</td>
<td></td>
<td></td>
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<tr>
<td></td>
<td>Protective factor</td>
<td>13, 26</td>
</tr>
<tr>
<td>Placement with grandparent</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Protective factor</td>
<td>13, 25</td>
</tr>
<tr>
<td>Other bio/adopted children in home</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Risk factor</td>
<td>1, 14, 20</td>
<td></td>
</tr>
<tr>
<td>--------------------------------------------------------</td>
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<td></td>
</tr>
<tr>
<td><strong>Other foster children in home</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Protective factor</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td><strong>Adoptive father involvement</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Protective factor</td>
<td>19, 27</td>
<td></td>
</tr>
<tr>
<td><strong>Older age of caregivers</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Risk factor</td>
<td>24</td>
<td></td>
</tr>
<tr>
<td>Protective factor</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td><strong>Contact with bio parents</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Risk factor</td>
<td>24</td>
<td></td>
</tr>
<tr>
<td><strong>Death of caregiver</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Risk factor</td>
<td>17</td>
<td></td>
</tr>
<tr>
<td><strong>Agency Factors</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Inadequate child info/history</td>
<td>16</td>
<td></td>
</tr>
<tr>
<td><strong>Inadequate parent prep/training</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Risk factor</td>
<td>16, 24</td>
<td></td>
</tr>
<tr>
<td>Inadequate support</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Risk factor</td>
<td>6</td>
<td></td>
</tr>
<tr>
<td>Inadequate subsidy</td>
<td>1, 6, 24, 26</td>
<td></td>
</tr>
<tr>
<td><strong>Years of case manager experience</strong></td>
<td>23</td>
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<tr>
<td><strong>Post-adoption support services</strong></td>
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<td></td>
</tr>
<tr>
<td>Protective factor</td>
<td>2, 8, 14</td>
<td></td>
</tr>
<tr>
<td>Non-significant findings</td>
<td>14</td>
<td></td>
</tr>
<tr>
<td><strong>Pre-adoption support services</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Protective factor</td>
<td>10</td>
<td></td>
</tr>
</tbody>
</table>

*Note. The numbers in these columns correspond to the numbered citations below.*

2. Berry et al. (2007).
22. Selwyn et al. (2014).
Appendix B

Methods

This literature review was conducted following the procedure and steps developed by Gough, Oliver, and James (2012). The first steps of their framework involve understanding the utility of the review and developing research questions. Next, the research team defines the scope of studies that will be included for review and then develops a search strategy. Studies are then screened and coded. Coding is used to map and appraise the relevance of studies to the research questions. Last, a synthesis of studies is completed and communicated to stakeholders. This section presents details of the application of these steps to this literature review.

Table 2. Literature Review Framework

<table>
<thead>
<tr>
<th>Steps</th>
<th>Purpose</th>
<th>This systemic review</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Need</td>
<td>Understand utility of the review</td>
<td>Review purpose is to understand the impact of various risk and protective factors on discontinuity.</td>
</tr>
<tr>
<td>2. Review question</td>
<td>Identify underlying assumptions, define research question</td>
<td>What are the risk factors and protective factors impacting discontinuity?</td>
</tr>
<tr>
<td>3. Scope</td>
<td>Criteria to select studies</td>
<td>Must have foster/adopt/guardianship focus No conceptual or opinion pieces</td>
</tr>
<tr>
<td>4. Search</td>
<td>Design search strategy</td>
<td>77 combinations of search terms used across 4 databases</td>
</tr>
<tr>
<td>5. Screen</td>
<td>Assess utility of studies</td>
<td>Initial screen based on abstracts Secondary screen based on methods</td>
</tr>
<tr>
<td>6. Code</td>
<td>Collect information</td>
<td>Coding based on type of research study, further screening</td>
</tr>
<tr>
<td>7. Synthesize</td>
<td>Use information to answer question</td>
<td>Report of risk and protective factors based on the final sample of 27 articles</td>
</tr>
</tbody>
</table>

**STEP 1: NEED**

QIC-AG identified a need to synthesize literature on adoption and guardianship to provide a foundation for its work with sites and to expand the knowledge base available for sites working with the project. Additionally, this review was intended to serve a broader audience interested in risk and protective factors associated with discontinuity.
**STEP 2: RESEARCH QUESTION**

The QIC-AG partners identified underlying assumptions guiding this literature review. The first assumption was that children who have experienced maltreatment have behavioral or emotional problems resulting from that maltreatment. To effectively care for children who have experienced maltreatment, the caregivers of these children need support and guidance aimed at regulating the child’s behaviors. Finally, an assumption exists that when caregivers receive services, the risk of discontinuity increases.

Based on these assumptions, the research question guiding this study was defined as follows: What risk factors impact the likelihood of discontinuity for children in adoptive and guardianship placements?

**STEP 3: SCOPE**

To obtain articles that would answer the research question, inclusion and exclusion criteria for articles were established to create necessary boundaries for the scope of this project. The first inclusion criterion was that articles had to be published after 1990 and through March 2016, which was the date the searches of the literature databases ended. Next, studies in which adoption or guardianship was considered as only a demographic variable were not included if the focus of the study was not youth who were in care, adopted, or in guardianship placements. Articles had to be a descriptive/correlational piece or an experimental design. Thus, conceptual pieces and opinions or editorials were not included. Finally, because this study focused on public adoption and guardianship, studies examining families formed by international, intercountry, or private domestic adoptions were not included. However, studies conducted in other countries of interventions or risk factors for discontinuity in public adoptions and guardianships were included.

**STEP 4: SEARCH**

The search for articles included two distinct steps. First, members of the Professional Consortium & QIC-AG Leadership sent the bibliographic information for all articles of which they were aware of related to adoption or guardianship. Second, a comprehensive literature search was completed.

**Professional expertise.** The QIC-AG partners are Spaulding for Children, The University of Texas at Austin, The University of Wisconsin–Milwaukee, and The University of North Carolina at Chapel Hill. The QIC-AG Professional Consortium consists of 31 subject matter experts, adults and youth consumers, and consultant experts who provide overall guidance related to project implementation. The QIC-AG partners and Professional Consortium provided citations, or copies of articles, technical reports, and books on adoption and guardianship. A total of 727 unduplicated articles were identified and uploaded to the EPPI-Reviewer database (an online tool for systematic literature reviews).

**Comprehensive literature search.** To ensure that the information obtained from the QIC-AG partners and Professional Consortium members was complete, a comprehensive literature
search was conducted. A team of five master-level and PhD-level research assistants were supervised by a PhD-level researcher. The team developed a total of 77 different combinations of search terms that included adoption, caregiver, case management, child behavior, child history, child maltreatment, discontinuity, disruption, guardianship, intervention, mental health, outreach, parent, permanency, stress subsidies and support. Combinations of these search terms were used to search four electronic databases: American Psychological Association PsycARTICLES, ProQuest Social Services Abstracts, ProQuest Sociological Abstracts, and EbscoHost Social Work Abstracts.

Team members recorded their findings and noted the number of duplicate articles found at each step. After all search combinations were exhausted, all articles were uploaded into the EPPI-Reviewer database if they did not duplicate articles provided by the professional consortium members. The final search yielded 1,093 sources.

**STEP 5: SCREEN**

The 1,093 sources were initially screened for relevancy based on the exclusion/inclusion criteria by reviewing titles and abstracts. Of these, 686 sources were screened out of the sample. Of the excluded articles, 432 were opinions, editorials, and reports; 206 were not related to foster care or adoption from the U.S. child welfare system; 27 articles were focused on providing services to families-of-origin to prevent maltreatment and/or encourage reunification; 19 were excluded because the studies were completed before 1990, and one article was excluded because it was a duplicate article.

After this first screen of articles, 407 articles remained. These articles were sorted into articles where some intervention was tested and articles that were purely descriptive, provided correlational or cross-sectional data. Of the 407, 91 were determined to be testing interventions and 316 were descriptive.

A secondary screen of each set of articles was conducted through a more in-depth review of information about each article, including reviewing the methods to ensure the study fit the inclusion/exclusion criteria. Intervention studies were narrowed down to 42 studies by eliminating those where an intervention was simply discussed or described but not actually tested. Descriptive articles were narrowed down to 212 articles by eliminating articles that did not focus on foster or adoption populations related to the U.S. child welfare system.

**STEP 6: CODE**

The 407 articles were coded based on a coding scheme developed by the research team (see Table 3). Due to the complexity of the articles, it was not possible to develop a coding scheme that allowed for mutually exclusive or exhaustive variables. The coding team compiled a short summary for each article reviewed during the first step of coding.
Table 3

**Codes Based on Type of Study**

<table>
<thead>
<tr>
<th>Dataset: Name of source of data, original or secondary</th>
<th>Descriptive</th>
<th>Correlation /Cross-sectional</th>
<th>RCT &amp; Quasi experimental</th>
<th>Non-experimental</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sample size</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Sample description</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Variables: Names of variables or measures used</td>
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<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Intervention description</td>
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<td></td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Classify overall design: RCT, Quasi, Pre/Posttest, Non-experimental</td>
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<td></td>
<td>✓</td>
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</tr>
<tr>
<td>Type of analysis used</td>
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<td>✓</td>
</tr>
<tr>
<td>Mean of intervention/ control/ comparison</td>
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<td></td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>SD of intervention/ control/ comparison</td>
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<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Findings reported- crosstabs</td>
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<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Findings reported - percentages</td>
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<td>✓</td>
<td>✓</td>
<td>✓</td>
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<tr>
<td>Findings reported - correlations</td>
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<tr>
<td>Findings reported - effect size</td>
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<td></td>
<td>✓</td>
<td>✓</td>
</tr>
</tbody>
</table>

*Note.* RCT = randomized controlled trial. SD=standard definition

In the second step of coding, the intervention studies (randomized controlled trials [RCT] and quasi-experimental designs) were assigned to one researcher for review and the descriptive studies (correlation/cross-sectional/descriptive) were assigned to another researcher. Each researcher reviewed the initial coding and further screened articles to ensure they fit the inclusion/exclusion criteria. This additional screen provided a quality assessment to ensure that both coding and articles fit the scope of the review. This screening excluded an additional 91 articles that tested interventions.
STEP 7: SYNTHESIZE

To synthesize information that specifically addresses the research question, additional articles were eliminated after coding. A deeper reading of the codes and the articles allowed for 256 descriptive studies to be excluded given these articles did not have information pertaining to the scope of our study. Articles were excluded that focused on (a) factors that influence foster children being adopted or finding a permanent placement (68 articles); (b) factors that influence child well-being outcomes for foster/adopted children (108 articles); (c) interventions for children/caregivers in child welfare (37 articles); (d) pre/post adoptive services use and satisfaction (21 articles); (e) information about caregivers such as perceptions, attitudes, strengths (18 articles); (f) costs/policy analyses of permanence (3 articles); and (g) summary/derivative only (1 article).

Of the 60 remaining articles, an additional reading of the articles determined that only 27 ultimately addressed our research question. The other 33 articles addressed factors that influenced whether children would be adopted and/or whether pre-adoption placements would disrupt. Thus, this final group of excluded articles did not focus on post-permanence and did not meet our definition of discontinuity.
Figure 1. Article exclusion chart

1,093 articles identified by QIC-AG Leadership Team and Professional Consortium and literature search

686 articles excluded during first screen

432 opinions, editorials, reports
28 focused on birth families or prevention
1 duplicate

206 not related to US child welfare system
19 before 1990

N=407

91 articles excluded that tested interventions

N=316

256 articles excluded

68 focus on foster children adoption factors
37 interventions for children & caregivers
18 caregiver perceptions

108 focus on child well-being outcomes generally
21 interventions satisfaction & utilization
3 cost analyses
1 summary

N=60

33 articles excluded that did not focus on post permanence

N=27 articles included in literature review

N=27