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Research article

The impact of drugs, infants, single mothers, and relatives on reunification: A Decision-Making Ecology approach☆

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ABSTRACT

Using a Decision-Making Ecology (DME) approach and proportional hazards models, the study isolated four case factor profiles that interacted strongly with race and resulted in disparate reunification outcomes for African American children compared with Anglos. The four interrelated factors were drug involvement, a solo infant case, single mothers, and relative placements. A cohort of 21,763 children from the Texas Department of Family and Protective Services who were placed for the first time in care, who were under 13 and either Anglo or African American were followed for 20 months or more post entry into care. Starting with an initial model consisting of main effects only and consistent with other studies, African American children had a 12% lower hazard rate of reunification compared to Anglo children. However, when a set of case profiles involving combinations of single parents, single infants, drug involvements and kinship placements were crossed with race, the magnitude of the effect of race on hazard rates fanned out from no difference to as much as 68% that of Anglo children. The results show that racial disparities in outcomes resulting from complex, contextual decision making cannot be modeled well with simple main effects models.

Introduction

Decisions regarding when and whether to return a child in placement to their home of origin are among the most challenging in child welfare. Such decisions have implications for child safety, child well-being, and for child welfare costs. Given the centrality of the reunification decision, it is important to research how context may influence workers' decision-making processes.

The Decision-Making Ecology (DME) framework (Baumann, Kern, & Fluke, 1997; Baumann, Dalgleish, Fluke, & Kern, 2011; Baumann, Fluke, Dalgleish, & Kern, 2014; Fluke, Baumann, Dalgleish, & Kern, 2014) is one way to theoretically incorporate context into decision-making research. The DME framework suggests the evaluation of how case, organizational, external and

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individual decision-maker factors affect both independently and interactively the decision-making process. In child welfare, the DME has been successfully applied to the substantiation decision (Dettlaff et al., 2011; Fluke et al., 2001), the decision to place children into care (Chabot et al., 2013; Fallon et al., 2013; Fluke, Chabot, Fallon, MacLaurin, & Blackstock, 2010; Graham, Dettlaff, Baumann, & Fluke, in press), maltreatment recurrence (Maguire-Jack & Font, 2014), and burnout and turnover (Baumann, Kern, McFadden, & Law, 1997). This study uses the DME to examine potential sources of disproportionality in the reunification decision.

In 2005, the Texas Department of Family & Protective Services began an initiative to identify and reduce the disproportionality of African American children in the state foster care population. A comprehensive evaluation of the initiative found that African American children exited to reunification more slowly than Caucasian children (Baumann et al., 2010). The present study grew out of the desire to more precisely identify the contexts in which a race differential was occurring with the goal of better targeting remediation efforts. This research focus raises interesting methodological challenges.

Numerous studies, mostly using proportional hazards models, have added race to their models as a main effect and shown that, similarly to Texas, African American children are reunified with their parents from foster care more slowly than Anglo children (Connell, Katz, Saunders, & Tebes, 2006; Courtney & Wong, 1996; Courtney, Piliavin, & Wright, 1997; Courtney, 1994; Goerge & Bilaver, 2005; Harris & Courtney, 2003; Hill, 2005; Lu et al., 2004; McMurtry & Lie, 1992; Wells & Guo, 1999; Wulczyn, Brunner, & Goerge, 2000; Wulczyn, Chen, & Oriebek, 2009). This general finding can be described as being, averaging across all different case types, African Americans will leave care to parents more slowly than Anglo children.

While it is important to know that race is a factor in decision-making, the DME suggests that case, organizational, and external factors might affect the magnitude of the race effect in different ways. In fact studies have crossed race with a single case factor such as child age, parent's marital status or drug problems, or the external factor geography and shown that the race effect is not equal across all covariates (Baumann et al., 2010; Goerge, 1990; Harris & Courtney, 2003; Wells & Guo, 1999). For example, Wells and Guo show that African American children of married parents exit to reunification at similar levels to Anglos, while children of single African American parents exit much more slowly.

This study adds to the literature by attempting to identify how the magnitude of the African American/Anglo race effect can vary based on presence or absence of four interrelated factors: drugs, infants, and single mothers (case characteristics), and relative placements (an organizational characteristic), while holding other case, organizational and external characteristics constant. This is equivalent to adding multiple interaction terms to a model. We believe that the lack of attention in the literature to understanding variability in a race effect is due to the difficulties involved in introducing complex interaction terms into proportional hazards models, as well as to the absence of theoretical models that support the notion of multiple decision-making influences on decisions that produce disparities.

Our analytic approach is as follows: (1) we use a proportional hazards model to identify significant main-effect variables on the rate at which children exit to reunification; (2) we develop a profile variable that allows for the exploration of the five-way interaction between drugs, infants, marital status, relative placements and race; (3) we develop a model with a race interaction term. (This term identifies differential race effects for each of our profile cases.) Our underlying hypothesis is that models that try to unpack complex interactions between factors will serve to better illuminate the underlying dynamics of disproportionality than single factor models.

Prior Research on Reunification

A Methodological Note

For the most part research on reunification has relied on proportional hazards models to identify the factors that are associated with the speed at which children leaving substitute care will be reunified with their parents. Proportional hazards models analyze variables in relation to time to an event. The model hazards ratio describes how individuals with a particular characteristic are more or less likely to experience the event per unit of time compared to a base group. Proportional hazard models make two assumptions that are important to take into account. One is that censored observations are independent of the event of interest, in the current study, the exit to reunification. The second is that the risk of exiting during time (i) for a particular explanatory variable is the same across all time periods. If the hazard ratio is proportional across time those children who are exiting more slowly to reunification will also be the ones who in the end have been less likely to be reunified.

Certain methodological advancements are being made in the field in order to address deviations from these assumptions when modeling exits from foster care. For example, competing risk models have been used to address the dependence of exits from foster care. If a child exits to reunification, s/he is no longer at risk of exiting to adoption or to guardianship during the same foster care episode (Akin, 2011; Connell et al., 2006; Courtney & Hook, 2012; McDonald, Poertner, & Jennings, 2007). Hence, in child welfare exit events are not independent. Discrete time hazards and the inclusion of time interaction variables have been used to model change in hazards across time (Akin, 2011; Wulczyn, Chen, & Courtney, 2010). Multilevel or hierarchical models have been used to give better estimates when there is non-independence of explanatory factors, as occurs when children are nested within counties and county-level indicators are added to the model (Wulczyn et al., 2010). As of yet there has been little attention given to methodological issues associated with possible complex interactions among models' explanatory variables.