Mapping the inter-organizational landscape of child maltreatment prevention and service delivery: A network analysis☆

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ABSTRACT

Network analysis is uniquely suited to inform the complex interactions in contemporary child welfare practice. This study examined the community-wide interconnectivity of child welfare efforts that exist across organizations in a county system. Structural properties were measured for 11 activities, including sending/receiving referrals, case coordination, shared resources, education/awareness, fundraising, and evaluation. The sample was bounded to match the county-level implementation of local child welfare services and to emphasize the complex context in which organizations implement social interventions. Eighty organizations participated in a network survey and findings systematically quantify the breadth and degree of their interdependence, thus making a distinct contribution to the field's understanding of multidisciplinary participation and collective action. Differences in network cohesion across types of activities, including a dominance of referrals and a relative absence of fundraising and evaluation relationships, are discussed for policy and practice relevance, as are directions for future systematic network research in child welfare settings.

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1. Introduction

Issues of child maltreatment are entrenched in society, and their complexity, cost, and ambiguity require a dispersed response across organizations and professional disciplines. Trends in privatization of public services and a devolution of policy to local domains (Diulio & Kettl, 1995) contribute further to the presence of cross-sector, networked environments in child welfare practice. Understanding, then, how varying professions and organizations collectively navigate the multifaceted needs of children and families is a cornerstone of practice. Yet, advocates, practitioners, and administrators operate with little guidance on how inter-organizational networks function in child welfare contexts, how they can be improved, their influence on practice outcomes, or the inherent costs and benefits involved.

Indeed, the field of child welfare has alternatively had a consistent and cross-national history of poor integrative success, one in which communication failures and accounts of inadequate case coordination across different intervening systems are widely noted (Kamerman & Kahn, 1990; New York City Department of Investigation, 2007; Rabin, 2011; Reder & Duncan, 2003; Zetlin, Weinberg, & Kimm, 2003). Research at the network-level of analysis has the potential to help counter this fragmentation. While "whole" network research is notably limited

in human service settings (Provan, Fish, & Sydow, 2007), applications have increasingly emerged in health and mental health fields that demonstrate its value for informing policy and practice (Harris, Luke, Burke, & Mueller, 2008; Provan, Leischow, Keagy, & Nodora, 2010; Provan & Huang, 2012; Retrum, Chapman, & Varda, 2013). Rich child welfare scholarship examining interagency collaboration also offers a strong foundation, yet studies primarily focus on a single relationship (e.g., collaboration between child protection case managers and substance abuse treatment providers) and typically address only two or a handful of organizations instead of the system as a whole (Ayasse, Donahue, & Berrick, 2007; Chen, 2008; Chuang & Wells, 2010; Ehrle, Scarcell, & Green, 2004; Green, Rockhill, & Burrus, 2008; Weinberg, Zetlin, & Shea, 2009; Wells, Chuang, Haynes, Lee, & Bai, 2011). These studies emphasize the need for integration across organizations, professions, and sectors, and some have extended the scope to include larger collaboratives (e.g., early childhood-child collaboratives) (Brown, Klein, & McCrae, 2014); yet, the field is missing a holistic network perspective and the heralded potential of collaboration remains unhoned and largely uncertain. Admittedly, the complexity of child maltreatment and complex response across organizations does not lend itself to empirical measurement. However, the same logic that propels a focus on collaborative practice in the field suggests that such an understanding could be transformative.

Network analysis methods are poised to fill this gap. Network analysis has the distinctive utility to measure, visualize, and understand inter-organizational relationships (Wasserman & Faust, 1994) and, likewise, complements the complex systems theoretical lens called for by

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child welfare scholars (Stevens & Cox, 2008; Stevens & Hassett, 2007). By examining relational data and contributing analytic concepts to express and assess the structural properties formed by relations (e.g., breadth, density, and centralization), network analysis makes "the abstractions used by complexity theory concrete" (Mischen & Jackson, 2008, p. 323) and the examination of interwoven organizational connections an empirical reality. It, thus, gives specific traction to Wulczyn et al.'s (2010) call for "clarity regarding a shared understanding of the boundary (i.e., the structural relationship or embeddedness) between a child protection system and other formal systems (e.g., education, health, mental health)" – a step they noted to be fundamental for informing functioning, governance, and accountability in the field (p. 26).

Contributing to this clarity was an essential goal of the present study, as was the preliminary step of identifying entities that should be included in the boundary. In other words, what is the child welfare "system"? What organizations play an active role? In this study, a community-wide orientation was applied to this question, whereby the full range of sectors and professional disciplines that interact on activities related to child maltreatment were systematically identified. The structural properties of their interactions were then analyzed to reveal the full landscape of inter-organizational prevention and service delivery efforts in a county system. In doing so, this study sought to (a) identify the breadth and structure of a holistic inter-organizational network preventing and responding to child maltreatment, (b) compare a comprehensive range of 11 embedded activities to reveal the explicit manner in which organizations interact and do not interact, (c) inform network development at the research site to strengthen community capacity for serving children and families, and (c) advance the use of network analysis as a means to empirically apply complexity theory in ways to gain knowledge of the complicated practice and policy implementation systems that are paramount in the social work profession.

2. Method

2.1. Research setting

This study examined the structure of an inter-organizational network in a county in the southeastern United States, population approximately 120,000. It is the most populous of surrounding counties (U.S. Census Bureau, 2014) with a consistent history of high poverty rates (DeNavas-Walt, Proctor, & Smith, 2010)—approximately 82% of school-aged children in the county are eligible for free or reduced lunch programs and 47% rely on public health insurance (Annie E. Casey Foundation, 2014). Given that the implementation of child protective services (CPS) varies across states and countries, it is important to clarify that CPS, foster care, and adoptions in this location are conducted through a state agency for human resources. Under the state umbrella, programs are administered through local county offices. The methodology for this study was reviewed by the Internal Review Board (IRB) and deemed to be nonhuman subjects research, as data were specific to organizations rather than to individual respondents. However, multiple IRB approvals were obtained to meet the internal requirements of participating organizations, as requested.

2.2. Study sample

The process of sampling followed a realist approach (Wasserman & Faust, 1994), whereby organizations were "included or excluded to the extent that the other actors judge[d] them to be relevant" (Knoke & Yang, 2008, p. 15). Purposeful sampling drove the decision to begin with the local county child protective service agency as the first point of contact – the primary public organization designated to intervene in cases of child maltreatment. Agency administrators were invited to participate in the study and asked to initiate the boundary specification process by listing organizations their organization interacted with on one or more of 12 designated service delivery and prevention activities within the past 12 months (e.g., referrals sent, case coordination, shared training, advocacy, fundraising). Each named organization was then contacted, introduced to the study, and likewise invited to identify additional organizations they interacted with, per the same criteria. Described as a snowball sampling procedure, this process continued in iterations, whereby every identified organization was given the opportunity to add additional organizations for inclusion. Although intensive, the intent of these procedures was to achieve a comprehensive sample that reflected the reality of all relevant community organizations.

In total, 112 organizations were identified. Organizations individually named during boundary specification were automatically included in analysis except in instances when (a) they were found to no longer be in operation ($n = 3$); (b) they were not active in the local county ($n = 1$); (c) an individual, rather than organization was identified (e.g., singular attorney) ($n = 2$); and (d) they responded to initial contact requesting to not be included ($n = 1$). Based on these exclusions, the sample was finalized to include 105 singular organizations. As a point of clarity, while the term "organization" is referenced throughout this study and is primarily accurate in describing agents that compose the network, participation did extend to entities that do not represent a traditionally defined organization (e.g., judicial branches), yet were considered functioning entities in this practice context and per the realist approach applied.

2.3. Data collection

A network survey was built to list the 105 organizations identified during boundary specification and a *key informant*—director, coordinator, or other administrative representative— from each organization responded to a traditional network question capturing how their organization interacted with every other organization identified. The categories of interaction included the following 12 activity types: (a) referrals sent, (b) referrals received, (c) case coordination, (d) joint program for service delivery, (e) shared resources for service delivery, (f) shared training, (g) evaluation activities, (h) fundraising, (i) advocacy, (j) community awareness/education, (k) joint programs for prevention, and (l) shared resources for prevention. Key informants checked boxes, as applicable, for each of the 105 listed organization across all 12 activity types. As an example, *case coordination* was defined as, "Does your agency coordinate cases with the agency listed regarding families or children who are also clients with the Department of Family and Children Services?"

The survey was revised from a model provided by Provan, Veazi, Staten, and Teufel-Shone (2005) and altered to align with child welfare services. A draft of the survey was piloted in a web-based distribution with comparable organization representatives in non-participating counties ($n = 3$), and modified for clarity. In the final version, a few organizations were represented in two ways to capture distinctive programs. This was done to promote recognition of programs that may otherwise not be widely understood to belong to an umbrella organization, as well as to allow for greater nuance in the understanding of how community organizations interact with different branches of large organizations. Responses were combined during data management to represent singular organizations for purposes of the present analysis.

Following a 5-week boundary specification process that began in September 2014, data were collected over 4 months—October 2014 through January 2015. Out of the 105 organizations contacted, 80 participated in the network survey (75% response rate). The majority met with the researcher in-person ($n = 65$) or by phone ($n = 2$) and either completed the survey during the meeting ($n = 55$) or on a web-based platform partially during the meeting and/or before or after meeting ($n = 12$). Direct contact with 67 of the 80 participating organizations added confidence that survey questions were interpreted and completed as intended. Thirteen organizations submitted the network survey