Child Abuse & Neglect 95 (2019) 104028

Contents lists available at ScienceDirect

Child Abuse & Neglect

journal homepage: www.elsevier.com/locate/chiabuneg

Research article

Characteristics of effective collaboration: A study of Nurse-Family Partnership and child welfare

Gregory J. Tung[a,b,*], Venice N. Williams[b], Roman Ayele[a,c], Suzuho Shimasaki[a], David Olds[b]

[a] Colorado School of Public Health, University of Colorado—Anschutz Medical Campus, Aurora, CO, United States
[b] Prevention Research Center for Family and Child Health, University of Colorado—Anschutz Medical Campus, Aurora, CO, United States
[c] Denver-Seattle Center of Innovation for Veteran-Centered & Value-Driven Care, VA Eastern Colorado Health Care System, Aurora, CO, United States

ARTICLE INFO

Keywords:
Care coordination
Systems integration
Home visiting
Child abuse

ABSTRACT

Background: In February 2018, President Trump signed into law the Family First Prevention Act, legislation in the United States aimed at providing prevention services for families at risk of entering the child welfare system. The effectiveness of these prevention efforts is dependent on the formation of collaborative relationships between prevention-programs and child welfare.
Objective: To identify factors that influence the ability of the Nurse-Family Partnership (NFP) and Child Protective Services (CPS) to collaborate in serving high-risk mothers and their children.
Participants: 123 NFP, CPS workers, and community partners.
Setting: Seven sites in the U.S. state of Colorado selected to include an array of community sizes, geographies, apparent levels of collaboration, and variations in internal structures and practices.
Methods: Using an adapted grounded theory approach, we conducted semi-structured interviews with frontline NFP and CPS workers and supervisors. Interviews were recorded, transcribed, validated, and coded in NVivo 10.
Results: Alignment of core organizational mission and methods was key in determining collaboration levels between NFP and CPS. Only when workers perceived there to be alignment in organizational mission, did other factors such as program eligibility, communication channels, and risk and safety assessment practices influence the perceived benefits and efforts undertaken to enhance collaboration.
Conclusions: High-risk families frequently require services that go beyond the scope of any one organization. As programs that serve high-risk families refine their efforts to serve them effectively, collaborative efforts should focus on examining opportunities and challenges involved in creating greater mission alignment.

1. Introduction

Child maltreatment is a significant problem that undermines the well-being of children throughout the life course, and its prevention is a major national public health priority (Gilbert et al., 2009; Krug, Mercy, Dahlberg, & Zwi, 2002; MacMillan et al., 2009). In February 2018, President Trump signed into law the Family First Prevention Act (Family First Prevention Services Act, 2017),

* Corresponding author at: Department of Health Systems, Management and Policy, Colorado School of Public Health, 13001 E. 17th Place, 3rd Floor, Aurora CO, 80045, United States.
E-mail address: gregory.tung@ucdenver.edu (G.J. Tung).

https://doi.org/10.1016/j.chiabu.2019.104028
Received 29 November 2018; Received in revised form 20 May 2019; Accepted 31 May 2019
Available online 21 June 2019
0145-2134/

legislation in the United States aimed at providing prevention services for families at risk of entering the child welfare system. A component of this legislation is intended to support evidence-based in-home parenting programing to prevent child abuse. The effectiveness of these prevention efforts is dependent on the formation of collaborative relationships between child welfare and prevention programs (Altshuler, 2003; Chuang & Wells, 2010; Drabble, 2007; Ehrle, Scarcella, & Geen, 2004; Green, Rockhill, & Burns, 2008; Schechter & Edleson, 1994; Smith & Mogro-Wilson, 2007).

Nurse-Family Partnership (NFP), a program of prenatal and infant/toddler home visiting by nurses for vulnerable mothers bearing first children, is one of only two interventions considered to have strong evidence in randomized clinical trials in preventing and reducing the incidence of child abuse (Cicchetti, Rogosch, & Toth, 2006; Duggan et al., 2004; Eckenrode et al., 2000; Fergusson, Grant, Horwood, & Ridder, 2005; MacMillan et al., 2009; Mejdoubi et al., 2015; Olds et al., 1997; Olds, Henderson, Chamberlin, & Tatelbaum, 1986; Olds, Henderson, Chamberlin et al., 1986; Prinz, Sanders, Shapiro, Whitaker, & Lutzker, 2009; Rodrigo, Máiquez, Correa, Martín, & Rodríguez, 2006). NFP has been tested in a series of randomized clinical trials in the United States and internationally and found to produce replicated, enduring effects on maternal and child health when focused on families with overlapping sociodemographic and psychosocial risks (Eckenrode et al., 2000; Kitzman et al., 1997, 2000; Mejdoubi et al., 2014, 2015; Olds et al., 2013, 1998; Olds et al., 1997; Olds, Henderson, Chamberlin et al., 1986; Olds, Henderson, & Kitzman, 1994; Olds, Henderson, Tatelbaum, & Chamberlin, 1986; Olds et al., 2014, 2004; Olds et al., 2007, 2010; Olds et al., 2002).

The effect of NFP on child maltreatment in the United States should be understood in light of nurses' legal mandate to report suspected abuse and neglect to Child Protective Services (CPS). In the first trial of NFP, conducted in a county with the highest rates of reported and substantiated cases of child abuse and neglect in New York State, NFP nurses formed a working relationship with local child welfare workers to fulfill their responsibilities to protect vulnerable children (Eckenrode et al., 2000; Olds et al., 1994; Olds, Henderson, Tatelbaum et al., 1986).

In the initial trial of NFP, nurse-visited at-risk families had fewer indicated cases of abuse and neglect over a 15-year follow up period (Kitzman et al., 1997; Olds, Henderson, Tatelbaum et al., 1986), and were identified as maltreating at lower thresholds of severity than their counterparts in the control group (Olds, Henderson, Kitzman, & Cole, 1995). This pattern of effects was likely due to the intensive involvement of nurses with families in the home-visited group, leading to the early identification of maltreatment before it became more serious.

Today, NFP is operating in over 350 communities in the United States, as well as seven other countries (Prevention Research Center for Family and Child Health, 2019). As the program is replicated in these settings, the degree to which NFP nurses collaborate with child welfare workers is much more variable. Understanding this variation in collaboration, and the impact of collaboration on child welfare agencies' and NFP's collective ability to detect and prevent child maltreatment, is critical to serving high-risk families and to our knowledge, no research has been done in this area.

There has been a significant amount of research done on the collaborative practices of child welfare and other organizations such as behavioral health providers, early care and education, schools, and primary care providers (Altshuler, 2003; Chuang & Wells, 2010; Drabble, 2007; Ehrle et al., 2004; Green et al., 2008; He, Lim, Lecklitner, Olson, & Traube, 2015; Lee, Benson, Klein, & Franke, 2015; Schechter & Edleson, 1994; Smith & Mogro-Wilson, 2007; Zlotnik, Wilson, Scribano, Wood, & Noonan, 2015). Much of this work has been conducted with the recognition that stronger collaborative relationships are needed between child welfare and a range of other institutions in order to better meet the needs of high-risk children and families and that current collaborative practices need improvement. A better understanding of collaboration dynamics between NFP and CPS and the factors that facilitate more effective collaboration will inform CPS's broader collaboration needs. In addition, exploring NFP-CPS collaboration dynamics provides an opportunity to identify key factors that affect inter-organizational collaboration more broadly. This has far reaching implications for enhancing collaborative efforts to reduce other health problems that rely on care coordination to address social determinants of health.

Effective care coordination is an essential element of providing competent care to children and families with overlapping health and social needs. Care coordination and family-centered care lie at the heart of the medical home model, the standard for health care delivery to children and their families (Medical Home Initiatives for Children With Special Needs Project Advisory Committee, 2002; McAllister, Presler, & Cooley, 2007). While there is broad recognition that addressing social needs and determinants of health is a key component of care coordination and family-centered care, the medical-home model adopts a provider centered approach. Collaboration among health and social services providers is critical in the provision of family-centered care to address family-based social stressors (Antonelli, Stille, & Antonelli, 2008). While some work has found a range of improved outcomes associated with family-centered care (Turchi et al., 2009), the provision of effective collaborative care needs to be understood more completely. Our aims in this project were to better understand the factors that influence collaboration between NFP and CPS and health and social service providers more broadly.

In order to explore factors that influence effective collaborative relationships between agencies serving the health and social needs of children and their families, we conducted a qualitative study in the state of Colorado that examined relationships between NFP and child welfare agencies from the perspective of front-line workers.

2. Methods

We used an adapted grounded theory approach to explore relationships between NFP and CPS in local communities (Strauss & Corbin, 1994, 1997). We selected a grounded theory approach because we wanted contextualized and in-depth knowledge of collaboration dynamics as well as the key factors that influence those dynamics. While we had some conceptualization of the phenomenon, we wanted our research approach to allow us to explore new aspects of the phenomenon grounded in the data and real-life

Table 1
Number of Participants and Interviews.

	Initial Interviews No. (%)	Follow-Up Interviews No. (%)	Total Interviews
NFP Nurses	42 (95)	2 (5)	44
NFP Nurse Supervisors	8 (80)	2 (20)	10
CPS Caseworkers	32 (97)	1 (3)	33
CPS Supervisors	30 (94)	2 (6)	32
Community Partners	11 (100)	0 (0)	11
TOTAL	123 (95)	7 (5)	130

experience of front-line NFP and CPS workers. Our approach was adapted from a classic grounded theory approach by explicitly incorporating previous knowledge and program experience into our conceptualization and exploration of collaboration between NFP and CPS (Thomas & James, 2006). This informed our initial codebook, thematic interview guide, and site selection and was integrated into the iterative data gathering and analysis cycles that are inherent in grounded theory (Strauss & Corbin, 1994).

We purposely and theoretically selected seven NFP sites to participate based on feedback from NFP program experts and the data. Initial sites were selected based on guidance from program experts to ensure an array of community sizes, geographies, apparent levels of collaboration with CPS (as defined by NFP program experts), and variations in internal structures and practices among the participating sites. Subsequent sites were then theoretically selected for targeted data gathering to enhance our understanding of collaboration dynamics.

Between October 2013 and June 2014, we conducted 130 interviews (Table 1). Interviews were conducted primarily in-person and via phone; several through Skype audio. Interviews typically lasted between thirty minutes to one hour. For each site, recruitment and interviews were initially conducted with NFP nurses and supervisors. CPS workers as well as other community partners were identified through snowball and theoretical sampling until theoretical saturation was achieved. While the focus of our inquiry centered on the perspectives of NFP and CPS workers our study participant inclusion/exclusion criteria allowed us to interview any professionals that existing study participants identified as having valuable information or perspective to share on NFP and CPS collaboration dynamics.

We sent emails and phone calls to recruit study participants and explained both the purpose of the study and who identified them as a potential study participant and why, when applicable. We consented our study participants with our IRB-approved consent. Our original research protocol did not de-identify study participants. We took this approach because we only asked study participants about their professional and work activities. Soon after initiating interviews for this project it became apparent that interviewees where concerned about their statements being attributed to them. After consulting our oversight board and institutional IRB, we amended our IRB to anonymize data provided by individual study participants.

A totally of 123 individuals participated in 130 interviews. A small number of individuals participated in more than one interview. This typically happened when follow-up on an issue or perspective was deemed beneficial by the research team. The participation rate among NFP nurses and nurse supervisors was 98% (50/51). The participation rate among CPS workers was 86% (62/72). Those who declined participation provided reasons such as being too busy or being on parental leave.

2.1. Data analysis

Transcripts were coded and validated through an iterative, data-driven process of code development. We assessed coding consistency across the four coders using percent agreement and kappa statistics (> 0.6) as a benchmark for congruent coding. We characterized themes through coding and writing memos. Memos were validated within the research team and underwent expert validation by a team of NFP nurse consultants and educators. We conducted our analysis using NVivo 10. The study was approved by our IRB.

3. Results

Both NFP and CPS staff members reported that the needs and benefits of organizational collaboration were strongest when working with families served by both programs and who experienced overlapping psychosocial risks. Such risks included mental health and substance abuse problems, developmental delays, special medical needs, intimate partner violence, young age, environmental health concerns, and histories of child maltreatment.

The majority of CPS and NFP workers expressed a desire to improve collaboration. However, a minority of NFP nurses stated that collaboration between CPS and NFP was not beneficial for the families NFP serves. Nurses who voiced these concerns perceived a significant misalignment of mission and methods between NFP and CPS, and corresponding stigma for families associated with CPS involvement. However, the majority of CPS and NFP workers stated that improved collaboration would benefit the populations served by both programs. Among those who expressed enthusiasm for improved collaboration, the key themes that influenced collaboration included: (1) mission and methods alignment or misalignment between the agencies, (2) program eligibility criteria that limited the potential for serving mutual families, (3) communication channels between the programs, and (4) differing definitions and methods of risk and safety assessment (Table 2).

Table 2
Supporting Quotes for Key Themes.

Mission and methods alignment

NFP nurse: "ours is a very strength-based program, which I really appreciate. And, again, I'm – you know, I'm sounding very negative about Social Services. But they're – I don't… my experience has been they haven't necessarily been that way, maybe in the past. I mean, maybe things are changing, and that would be really good I think. But, you know, we really look for the strengths"

NFP nurse: "when I left I was working with a family and mom was an alcoholic and dad had been on drugs and he had quit drugs through a drug program through the courts. And Social Services – [CPS worker name removed] and I were working well together at that. And [CPS worker name removed] has a really open philosophy and positive outlook towards families, the same as NFP, and we were working together really well, too. But it's just, you know, it just didn't work out for the mom. So, so it is nice to have those success stories because not every case is going to be successful."

NFP programmatic and eligibility criteria

CPS caseworker: "I know that it [NFP] exists and we've had some training on it. I also know that it

is only, is available for first time moms, which is a huge barrier and I think makes it quite ineffective. I have quite a few moms that I think will benefit from it but are now ineligible because they have already had a child… And that's something that we gripe about all the time."

Communication channels between the programs

NFP nurse: "it's really helpful to them to have someone as experienced as [CPS trainer name removed] that they can just dial directly and say, 'Tell me what I should do. Here's the scenario. What should I do?' You know, because they feel more confident in what they're doing after they've had that support. And, mine is pretty good, but I don't work in that area, you know, so her credibility is really high. (laughs) And, between the two of us doing that, you know, or them calling [prevention programs manager name removed] or calling [case manager name removed], they - What I see in them is a higher level of confidence in what they're doing when it comes to looking at whether they need to report or not."

Risk and risk assessment

NFP nurse: "it would be interesting to know what the process is when… From the time they get a referral on somebody - Like, they get a phone call, you know, that they think that this child's been, you know, being beaten. And then, what do they - What is the process? What do they do? Because I - I honestly don't know. I mean, I know what ends up happening, but I don't know what they do and how quickly they respond, and I know some things would probably - Like, I've heard them talk about a RED something or RED Zone, or RED some - (laughs) Anyway, so I mean, I know there's things that are more- Make it more of a priority than others, I'm sure."

CPS caseworker: "And so, and I guess, what they figured out is that's really what's kind of best for families. I think sometimes as Assessment workers, we're okay with a certain amount of risk. We're okay… Because we understand the difference between risk and safety. I think Ongoing workers, they get bogged down in risk. And, 'I can't return a kid because there's so much risk.' … 'Well, can we mitigate the risk because there's always going to be risk with our families.' … But, so I think our job is to kind of help them, you know, maybe with some of our expertise and following a case, maybe we can get kids home quicker and faster because, 'Yeah, there is a risk, but those safety reasons of why I removed the kid, they're not there anymore, so why isn't this kid at home?'

3.1. Mission and methods misalignment and stigma associated with CPS

An overarching theme that emerged in the interviews with both NFP and CPS workers centered on a core misalignment between the mission and methods of NFP and CPS, and stigma associated with CPS. This misalignment and stigma were characterized by nurses as CPS's reputation for being adversarial, removing children from their homes without adequate assessment, and being punitive in their approach with families. Some NFP nurses perceived CPS as not being strengths-based, that is, building upon those aspects of caregivers' lives that they were managing well; they noted that this was a core feature of NFP practice. Some CPS workers noted this stigma and misperception of their organization, citing changes to adopting more strength-oriented practices. CPS workers also emphasized that NFP nurses were able to spend much more time with parents and their children and were not constrained by the need to make decisions about child abuse and neglect within the tight timeframes to which CPS was subjected.

Some NFP nurses also perceived inconsistencies in how CPS caseworkers investigated cases and determined whether a child should be removed from the home, which they believed reinforced a perception in the community that CPS removed children arbitrarily. NFP nurses who were pessimistic toward collaboration tended to see the mission and methods misalignment and stigma associated with CPS as insurmountable and a justification for NFP not to collaborate.

While the majority of NFP nurses saw value in increasing collaboration with CPS, they too frequently discussed the misalignment of missions, methods, and stigma associated with CPS as barriers, but indicated that these issues could be managed and overcome. These nurses frequently noted changes over time in how CPS functioned, with CPS becoming more strengths-based and family-focused. This change, which was presented as creating opportunities for more collaboration, coincided with CPS being more aligned with and responsive to NFP, such as providing more follow-up after nurses made mandatory reports of suspected child maltreatment. These changes were sometimes described in the context of a particular CPS agency's adopting "differential response", a term for recent innovations in CPS practice in which CPS has shifted from adversarial investigations toward strengths-based and family-focused engagement (Schene, 2005).

Those nurses that were optimistic about collaboration with CPS, described situations in which CPS involvement with their families was positive and had resulted in a better outcome for both the mother and child. Again, in these situations, the CPS caseworkers usually followed an approach more similar to NFP, and were more strengths-based and open with families. For example, CPS workers in one site helped families have guard rails or window screens installed in their homes through CPS. In another situation, an NFP nurse and CPS caseworker worked together with a mother to relinquish her parental rights due to severe mental health issues. The nurse and CPS caseworker were able to successfully guide the mother through this difficult decision.

3.2. NFP programmatic and eligibility criteria

Many CPS caseworkers stated that a major barrier to collaborating with NFP was its serving only first-time mothers. These program and eligibility criteria were acknowledged by NFP nurses. CPS caseworkers noted that they worked primarily with mothers

with multiple children and that NFP's focus on women with no previous live births limited opportunities to collaborate more frequently. NFP's requirement that women be registered during pregnancy (or within 30 days postpartum in Colorado) also limited opportunities for CPS to refer families to NFP. CPS caseworkers stated that they typically did not become involved with first-time pregnant women and infrequently became involved with infants within 30 days following birth. CPS workers noted that opportunities for collaboration with NFP would be much greater if NFP served multiparous women and/or expanded the enrollment period beyond 30 days after birth.

3.3. Communication channels between the programs

Both CPS workers and NFP nurses noted that having open communication channels in the forms of a consistent contact person at each agency and through structured educational opportunities to learn about each other's organizations were important for collaboration. CPS workers expressed desires to have a point person to gain clarity about the NFP program and to make referrals, while NFP nurses noted the importance of having a CPS contact to ask about mandatory reporting protocols and to facilitate communication if they had a family involved with CPS.

NFP nurses and CPS caseworkers also emphasized the importance of having opportunities to learn more deeply about each other's program goals, objectives, and eligibility (for NFP), organizational structure and processes, scope of work, and general practices. This knowledge of the other program and having open communication with a contact at the other program was described as especially important when the programs served the same families.

3.4. Risk and risk assessment

Variations in how NFP and CPS defined risk and how risk assessments were conducted between the agencies had significant implications for collaboration. Workers from both agencies took part in risk assessments of families within their scope of their practice. However, they used different definitions, tools, and assessment skills. Here we report and adopt the definitions and conceptualizations of risk and safety as used and defined by NFP and CPS workers that we interviewed.

CPS caseworkers tended to differentiate risk from safety while NFP nurses focused on risk and engaged in continuous assessment and used the nursing process, the systematic method to ensure quality care at the core of nursing, in their ongoing assessment of risks and strengths (Yura & Walsh, 1978). CPS caseworkers noted that the child welfare system responds to concrete actions and safety concerns, not risks. Safety concerns were described as specific events and actions or inactions affecting a child that could be considered abuse or neglect. Risk was described by CPS workers as insufficient for assignment for further investigation.

NFP nurses did not differentiate safety and risk but spoke about the factors that contributed to their assessment of whether a family was considered high-risk. When NFP nurses did not have knowledge about the CPS process and did not have an open channel of communication with CPS to navigate uncertainty, the difference in definition and approach towards risk contributed to negative outcomes. For example, NFP nurses would consider a family very high-risk and make a report to CPS only to have the CPS worker determine that the safety concerns were not sufficient to open an investigation. NFP nurses noted that this dynamic harmed relationships between the nurses and the family and sometimes resulted in situations where a high-risk mother would drop out of NFP with no alternative access to services or support.

4. Discussion

Consistent with literature and leading organizational agendas that suggest the importance of community organizations all having a stake to prevent child abuse and neglect (Mulroy & Shay, 1997; Rosanbalm et al., 2010), we found that the majority of NFP nurses stated that enhanced collaboration with CPS was beneficial, especially with high-risk families. However, a minority of NFP nurses felt that collaboration between the two agencies was not beneficial for the families they served. Perceived mission and methods misalignment between the two agencies was the primary factor referenced by both NFP nurses and CPS workers as the reason for limited collaboration. This is consistent with existing collaboration literature that highlights shared values or a common mission or purpose among key partners as essential aspects of collaborative partnerships (Corbin, Jones, & Barry, 2016; Roussos & Fawcett, 2000; Woulfe, Oliver, Siemering, & Zahner, 2010). We found that mission alignment is not sufficient but a necessary element for collaboration. Only when NFP nurses and CPS workers reported some level of mission alignment did the potential for meaningful collaboration emerge.

4.1. Differential response

Many NFP nurses noted that their local county CPS had "changed over time" and become more strengths-based and family-focused, and that this change increased the potential for collaboration. This change was frequently discussed within the context of CPS adopting "differential response" again, a term for recent shifts in CPS practice where CPS has moved from adversarial investigations toward strengths-based, family-focused, and prevention-oriented engagement with families when the severity of CPS reports are lower (Schene, 2005).

Further adoption of differential response by CPS agencies may create opportunities for NFP and CPS collaboration. Driven in part by widespread dissatisfaction with traditional adversarial and investigation-based CPS practices, differential response has been adopted rapidly across the United States (Kaplan & Merkel-Holguin, 2008; Merkel-Holguín, Kaplan, & Kwak, 2006). While there is

widespread enthusiasm for the expansion of differential response in child welfare, some have questioned the speed of its adoption, given limited evidence of its effects (Bartholet, 2014). It will be important to clarify the operationalization of differential response on local levels and rigorously evaluate and research its effectiveness when delivered in collaboration with NFP.

4.2. Multiparous mothers

CPS workers frequently stated that there were few opportunities for collaboration with NFP because the program serves only women with no previous live births. NFP would be more relevant to CPS's service population if it also served multiparous women, given the majority of the families CPS interacts with are mothers with multiple children.

In 2017, the Prevention Research Center for Family and Child Health at the University of Colorado embarked on a large-scale pilot to explore the potential of the program to serve high-risk multiparous mothers. At the time of this report, the pilot was in progress and it remains to be seen if program impacts observed with primiparous mothers and their children can be replicated with multiparous mothers and their children.

If NFP expands its eligibility criteria to include multiparous women, it would provide an opportunity for increased collaboration between NFP and CPS. Additionally, enhanced collaboration between NFP and CPS may be needed to effectively serve multiparous women and their children. In the current study, the perceived benefits of collaboration were greatest when the families served were at highest risk. While the focus of the current study was on NFP and CPS collaboration, NFP nurses noted the general need to deepen their collaboration with other community resources (e.g. organizations working in education, housing, food security, etc.) when serving mothers and children with multiple needs. As NFP explores serving multiparous mothers, it is likely that enhanced collaboration with CPS and other institutional partners, such as primary care providers, will be crucial in order to effectively serve this broadened population.

4.3. Limitations

There are limitations to our approach, which are important to take into consideration when assessing the validity, generalizability, and implications of our findings. The results reported here draw upon a limited number of sites exclusively within the state of Colorado, which may limit the generalizability of our findings. The strength of this study, on the other hand, is that our grounded-theory methodology has contributed to a detailed, nuanced, and contextualized understanding of NFP and CPS collaboration.

5. Conclusion

As NFP, CPS, and other providers and programs continue to refine their efforts to effectively serve high-risk children and families, organizational collaboration will be critical. Effective organizational collaboration will play a key role in shaping services funded under the Family First Prevention Act to prevent child abuse. Even more broadly, effective organizational collaboration will be an important factor in ongoing efforts to address social determinants of health through enhanced provider coordination.

Our results suggest mission, methods, and service-population alignment (i.e. serving the same individuals) are foundational in order to achieve effective collaboration. Once these elements are in alignment, other factors such as communication and operational compatibility are likely to influence the success of such efforts. Adoption of differential response by CPS and expanding NFP to multiparous women are likely to bring the two programs into greater alignment and create more need and opportunities for collaboration, which will need to be rigorously evaluated to assess their effects on children's safety and development.

Funding

This project was funded as part of "Keeping Kids Safe and Families Health 2.0" the enhanced Child Welfare Plan through the Colorado Department of Human Services.

References

Altshuler, S. J. (2003). From barriers to successful collaboration: Public schools and child welfare working together. *Social Work, 48*(1), 52–63.

Antonelli, R. C., Stille, C. J., & Antonelli, D. M. (2008). Care coordination for children and youth with special health care needs: A descriptive, multisite study of activities, personnel costs, and outcomes. *Pediatrics, 122*(1), e209–e216.

Bartholet, E. (2014). Differential response: A dangerous experiment in child welfare. *Florida State University Law Review, 42*, 573.

Prevention Research Center for Family and Child Health (2019). *Nurse-family partnership international program.* Retrieved from: http://www.ucdenver.edu/academics/colleges/medicalschool/departments/pediatrics/research/programs/prc/research/international/Pages/international.aspx.

Chuang, E., & Wells, R. (2010). The role of inter-agency collaboration in facilitating receipt of behavioral health services for youth involved with child welfare and juvenile justice. *Children and Youth Services Review, 32*(12), 1814–1822.

Cicchetti, D., Rogosch, F. A., & Toth, S. L. (2006). Fostering secure attachment in infants in maltreating families through preventive interventions. *Development and Psychopathology, 18*(3), 623–649.

Medical Home Initiatives for Children With Special Needs Project Advisory Committee (2002). The medical home. *Pediatrics, 110*(1), 184–186.

Corbin, J. H., Jones, J., & Barry, M. M. (2016). What makes intersectoral partnerships for health promotion work? A review of the international literature. *Health Promotion International, 33*(1), 4–26.

Drabble, L. (2007). Pathways to collaboration: Exploring values and collaborative practice between child welfare and substance abuse treatment fields. *Child Maltreatment, 12*(1), 31–42.

Duggan, A., Fuddy, L., Burrell, L., Higman, S. M., McFarlane, E., Windham, A., ... Sia, C. (2004). Randomized trial of a statewide home visiting program to prevent child abuse: Impact in reducing parental risk factors. *Child Abuse & Neglect, 28*(6), 623–643.

Eckenrode, J., Ganzel, B., Henderson, C. R., Jr, Smith, E., Olds, D. L., Powers, J., ... Sidora, K. (2000). Preventing child abuse and neglect with a program of nurse home visitation: The limiting effects of domestic violence. *JAMA, 284*(11), 1385–1391.
Ehrle, J., Scarcella, C. A., & Geen, R. (2004). Teaming up: Collaboration between welfare and child welfare agencies since welfare reform. *Children and Youth Services Review, 26*(3), 265–285.
Family First Prevention Services Act, Pub. L. No. Public Law 110-351, Public Law 113-183 § 1320a-9, 622, 625, 629, 629a, 629b, 629f, 629g, 629h, 629m, 631, 670, 671, 672, 673, 673b, 674, 675, 675a, 676, 677, 679b and 679c, 122 Stat. 3975.
Fergusson, D. M., Grant, H., Horwood, L. J., & Ridder, E. M. (2005). Randomized trial of the Early Start program of home visitation. *Pediatrics, 116*(6), e803–e809.
Gilbert, R., Widom, C. S., Browne, K., Fergusson, D., Webb, E., & Janson, S. (2009). Burden and consequences of child maltreatment in high-income countries. *The Lancet, 373*(9657), 68–81.
Green, B. L., Rockhill, A., & Burns, S. (2008). The role of interagency collaboration for substance-abusing families involved with child welfare. *Child Welfare*.
He, A. S., Lim, C. S., Lecklitner, G., Olson, A., & Traube, D. E. (2015). Interagency collaboration and identifying mental health needs in child welfare: Findings from Los Angeles County. *Children and Youth Services Review, 53*, 39–43.
Kaplan, C., & Merkel-Holguin, L. (2008). Another look at the national study on differential response in child welfare. *Exploring Differential*.
Kitzman, H., Olds, D. L., Henderson, C. R., Hanks, C., Cole, R., Tatelbaum, R., ... Shaver, D. (1997). Effect of prenatal and infancy home visitation by nurses on pregnancy outcomes, childhood injuries, and repeated childbearing: A randomized controlled trial. *JAMA, 278*(8), 644–652.
Kitzman, H., Olds, D. L., Sidora, K., Henderson, C. R., Jr, Hanks, C., Cole, R., ... Glazner, J. (2000). Enduring effects of nurse home visitation on maternal life course: A 3-year follow-up of a randomized trial. *JAMA, 283*(15), 1983–1989.
Krug, E. G., Mercy, J. A., Dahlberg, L. L., & Zwi, A. B. (2002). The world report on violence and health. *The Lancet, 360*(9339), 1083–1088.
Lee, S.-Y., Benson, S. M., Klein, S. M., & Franke, T. M. (2015). Accessing quality early care and education for children in child welfare: Stakeholders' perspectives on barriers and opportunities for interagency collaboration. *Children and Youth Services Review, 55*, 170–181.
MacMillan, H. L., Wathen, C. N., Barlow, J., Fergusson, D. M., Leventhal, J. M., & Taussig, H. N. (2009). Interventions to prevent child maltreatment and associated impairment. *The Lancet, 373*(9659), 250–266.
McAllister, J. W., Presler, E., & Cooley, W. C. (2007). Practice-based care coordination: A medical home essential. *Pediatrics, 120*(3), e723–e733.
Mejdoubi, J., van den Heijkant, S. C., van Leerdam, F. J., Crone, M., Crijnen, A., & HiraSing, R. A. (2014). Effects of nurse home visitation on cigarette smoking, pregnancy outcomes and breastfeeding: A randomized controlled trial. *Midwifery, 30*(6), 688–695.
Mejdoubi, J., van den Heijkant, S. C., van Leerdam, F. J., Heymans, M. W., Crijnen, A., & Hirasing, R. A. (2015). The effect of VoorZorg, the Dutch nurse-family partnership, on child maltreatment and development: A randomized controlled trial. *PloS One, 10*(4), e0120182.
Merkel-Holguín, L. A., Kaplan, C., & Kwak, A. (2006). *National study on differential response in child welfare.* Washington, DC: American Humane Association and Child Welfare League of America.
Mulroy, E. A., & Shay, S. (1997). Nonprofit organizations and innovation: A model of neighborhood-based collaboration to prevent child maltreatment. *Social Work, 42*(5), 515–524.
Olds, D., Donelan-McCall, N., O'Brien, R., MacMillan, H., Jack, S., Jenkins, T., & Thorland, B. (2013). Improving the nurse–family partnership in community practice. *Pediatrics, 132*(Supplement 2), S110–S117.
Olds, D., Henderson, C. R., Kitzman, H., & Cole, R. (1995). Effects of prenatal and infancy nurse home visitation on surveillance of child maltreatment. *Pediatrics, 95*(3), 365–372.
Olds, D., Henderson, C. R., Jr, Cole, R., Eckenrode, J., Kitzman, H., Luckey, D., & Powers, J. (1998). Long-term effects of nurse home visitation on children's criminal and antisocial behavior: 15-year follow-up of a randomized controlled trial. *JAMA, 280*(14), 1238–1244.
Olds, D. L., Eckenrode, J., Henderson, C. R., Kitzman, H., Powers, J., Cole, R., ... Luckey, D. (1997). Long-term effects of home visitation on maternal life course and child abuse and neglect: Fifteen-year follow-up of a randomized trial. *JAMA, 278*(8), 637–643.
Olds, D. L., Henderson, C. R., Chamberlin, R., & Tatelbaum, R. (1986). Preventing child abuse and neglect: A randomized trial of nurse home visitation. *Pediatrics, 78*(1), 65–78.
Olds, D. L., Henderson, C. R., & Kitzman, H. (1994). Does prenatal and infancy nurse home visitation have enduring effects on qualities of parental caregiving and child health at 25 to 50 months of life? *Pediatrics, 93*(1), 89–98.
Olds, D. L., Henderson, C. R., Tatelbaum, R., & Chamberlin, R. (1986). Improving the delivery of prenatal care and outcomes of pregnancy: A randomized trial of nurse home visitation. *Pediatrics, 77*(1), 16–28.
Olds, D. L., Holmberg, J. R., Donelan-McCall, N., Luckey, D. W., Knudtson, M. D., & Robinson, J. (2014). Effects of home visits by paraprofessionals and by nurses on children: Follow-up of a randomized trial at ages 6 and 9 years. *JAMA Pediatrics, 168*(2), 114–121.
Olds, D. L., Kitzman, H., Cole, R., Robinson, J., Sidora, K., Luckey, D. W., ... Holmberg, J. (2004). Effects of nurse home-visiting on maternal life course and child development: Age 6 follow-up results of a randomized trial. *Pediatrics, 114*(6), 1550–1559.
Olds, D. L., Kitzman, H., Hanks, C., Cole, R., Anson, E., Sidora-Arcoleo, K., & Tutt, R. A. (2007). Effects of nurse home visiting on maternal and child functioning: age-9 follow-up of a randomized trial. *Pediatrics, 120*(4), e832–e845.
Olds, D. L., Kitzman, H. J., Cole, R. E., Hanks, C. A., Arcoleo, K. J., Anson, E. A., ... Bondy, J. (2010). Enduring effects of prenatal and infancy home visiting by nurses on maternal life course and government spending: Follow-up of a randomized trial among children at age 12 years. *Archives of Pediatrics & Adolescent Medicine, 164*(5), 419–424.
Olds, D. L., Robinson, J., O'Brien, R., Luckey, D. W., Pettitt, L. M., Henderson, C. R., ... Hiatt, S. (2002). Home visiting by paraprofessionals and by nurses: A randomized, controlled trial. *Pediatrics, 110*(3), 486–496.
Prinz, R. J., Sanders, M. R., Shapiro, C. J., Whitaker, D. J., & Lutzker, J. R. (2009). Population-based prevention of child maltreatment: The US Triple P system population trial. *Prevention Science, 10*(1), 1–12.
Rodrigo, M. J., Máiquez, M. L., Correa, A. D., Martín, J. C., & Rodríguez, G. (2006). Outcome evaluation of a community center-based program for mothers at high psychosocial risk. *Child Abuse & Neglect, 30*(9), 1049–1064.
Rosanbalm, K. D., Dodge, K. A., Murphy, R., O'Donnell, K., Christopoulos, C., Gibbs, S. W., ... Daro, D. (2010). Evaluation of a collaborative community-based child maltreatment prevention initiative. *Protecting Children, 25*(4), 8.
Roussos, S. T., & Fawcett, S. B. (2000). A review of collaborative partnerships as a strategy for improving community health. *Annual Review of Public Health, 21*(1), 369–402.
Schechter, S., & Edleson, J. L. (1994). In the best interest of women and children: A call for collaboration between child welfare and domestic violence constituencies. *Paper Presented at the Briefing Paper Presented at the Conference on Domestic Violence and Child Welfare: Integrating Policy and Practice for Families*.
Schene, P. (2005). *The emergence of differential response. Differential Response in Child Welfare. Protecting Children*20.
Smith, B. D., & Mogro-Wilson, C. (2007). Multi-level influences on the practice of inter-agency collaboration in child welfare and substance abuse treatment. *Children and Youth Services Review, 29*(5), 545–556.
Strauss, A., & Corbin, J. (1994). Grounded theory methodology. *Handbook of Qualitative Research, 17*, 273–285.
Strauss, A., & Corbin, J. M. (1997). *Grounded theory in practice.* Sage.
Thomas, G., & James, D. (2006). Reinventing grounded theory: Some questions about theory, ground and discovery. *British Educational Research Journal, 32*(6), 767–795.
Turchi, R. M., Berhane, Z., Bethell, C., Pomponio, A., Antonelli, R., & Minkovitz, C. S. (2009). Care coordination for CSHCN: Associations with family-provider relations and family/child outcomes. *Pediatrics, 124*(Supplement 4), S428–S434.
Woulfe, J., Oliver, T. R., Siemering, K. Q., & Zahner, S. J. (2010). Peer reviewed: Multisector partnerships in population health improvement. *Preventing Chronic Disease, 7*(6).
Yura, H., & Walsh, M. B. (1978). *The nursing process: Assessing, planning, implementing, evaluating.* Appleton-Century-Crofts.
Zlotnik, S., Wilson, L., Scribano, P., Wood, J. N., & Noonan, K. (2015). Mandates for collaboration: Health care and child welfare policy and practice reforms create the platform for improved health for children in foster care. *Current Problems in Pediatric and Adolescent Health Care, 45*(10), 316–322.