The Benefits of Child Care among Children who Experience Neglect

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Despite experiencing maltreatment, many children remain in their homes. After cases are investigated by CPS, cases are considered "substantiated" if there was sufficient evidence to indicate maltreatment and "unsubstantiated" if there was insufficient evidence. Substantiation does not differentiate children's outcomes (Hussey et al., 2005), which means that children with unsubstantiated cases likely experienced an environment similar to maltreatment. In 2016, less than 23% of substantiated victims of maltreatment received foster care services and almost all children remained in their homes when maltreatment was unsubstantiated (see exceptions in USDHHS, 2017). Given that the majority of maltreatment reports are for neglect (USDHHS, 2017), it is likely that many children who remain in their homes have experienced neglectful parenting. Child neglect victims are generally understudied (Proctor & Dubowitz, 2014) and there is particularly little research on protective factors that promote well-being among young children who have experienced neglect. Therefore, it is important to understand resources that might promote child well-being among children who remain in home following neglectful parenting.

One potential resource for promoting positive child development among children who have experienced neglect could be early care and education (ECE). Although it is likely that the benefits of ECE would extend to children who experience maltreatment, there is very little research on the topic. Of the existing research on child care among children involved in CPS, the focus has been on maltreatment generally rather than specifically on neglect. One study on children in non-parental care found that children in Head Start had some improvements in pre-academic skills and marginal improvements in behavior problems (Lipscomb, Pratt, Schmitt, Pears, & Kim, 2013). Another study on children from low-income households in Florida demonstrated that children who attended an accredited ECE had higher language, cognition, and fine motor skills than children in non-accredited centers for both CPS involved and non-CPS involved children (Dinehart, Mandra, Katz, & Hartman, 2012). A study on children involved in CPS in Minnesota found that children enrolled in a high quality ECE center showed improvements in language and social competence, but enrollment did not reduce disparities on academic or social-emotional outcomes between CPS and non-CPS involved children (Kovan, Mishra, Susman-Stillman, Piescher, & LaLiberte, 2014). In a nationally representative sample of children involved in CPS, children enrolled in ECE had higher language development than children not enrolled in ECE and ECE was particularly beneficial for supervisory neglect (Merrit & Klein, 2015). Overall, there is a growing literature on the benefits of ECE for children involved in CPS, but there is no research specifically on ECE as a protective factor for children with a history of neglect.

ECE might have a compensatory effect among children who experience neglect (Watamura et al., 2011). For children who experience neglect, it might be that any child care, rather than the specific type of care, is related to more positive development because the children are exposed to an environment that is likely more cognitively stimulating and that provides enriched supervision. Additionally, more time away from a neglectful household is likely to be beneficial for children's cognitive and emotional development, however this could differ based on the amount of time they are in care. More hours per day in child care has been related to increased externalizing behaviors for children not living with their parents (e.g., Lipscomb et al., 2014) and therefore might function similarly for children who experience neglect. In contrast, if

time is measured as number of weeks in the last year that children were in child care, this could be related to better outcomes as it would represent stability in a likely more enriching environment.

The Current Study

The negative effects of neglect on children's development have been documented, and there is evidence to suggest that early childhood is a particularly vulnerable period for children's later development. Thus, it is important to explore resources that might compensate for the effects of experiencing a neglectful household at a young age. One potential buffer for children who experience maltreatment is child care, but there is a lack of evidence of the protective benefits among children who experience neglect. Child care could potentially be compensatory as it places children in a stimulating environment with an engaged caregiver, however the associations between child care and children's social-emotional and cognitive development might differ based whether the child experiences physical or supervisory neglect. To address these gaps in the literature, the current study investigated two research questions: 1) How do different dimension of child care (e.g., participation, type of care, and quantity) relate to children's cognitive and social-emotional well-being among children involved in CPS for neglect?; and 2) How do these associations vary based on the type of neglect (e.g., physical neglect or supervisory neglect)?

Method

Data and Sample

The National Survey of Child and Adolescent Well-being II (NSCAW II) is a longitudinal and nationally representative sample of 5,873 children aged 0 to 17.5 years, who had CPS investigations closed between February 2008 and April 2009. NSCAW II oversampled for infants and children in out-of-home care and under-sampled for cases not receiving services to allow for further analysis of subgroups. Three waves of interviews are available, with the second and third waves of data collection at 18 months and 36 months after wave 1, respectively. NSCAW II collected information from the children, parents, non-biological caregivers, and caseworkers. The sample will be limited to children who are five years or younger and who live with their parents at wave 1 (N = 2,142). The sample is limited by age to capture the children most likely to experience ECE and the sample is limited to in-home observations because the aim of the current study is to explore the compensatory benefits of child care among children who experience a neglectful household, not in addition to experiencing foster care. The sample will be further limited to children who entered CPS for any type of neglect (N = 1,790) (see Table 1). Neglect will not be limited to substantiated cases because this sample is at risk for less optimal development regardless of substantiation (Hussey et al., 2005).

Measures

Neglect subtypes. The maltreatment allegations and risk assessment from the caseworker report and the Parent-Child Conflict Tactics Scales (α = .66-.95; Straus et al., 1998) from the parent report will be used to assess different types of child neglect at wave 1. Child neglect will be assessed in two scales: physical neglect and supervisory neglect. Physical neglect includes measures of whether the alleged abuse was physical neglect or education neglect, if the family had trouble paying for basic necessities, and if the child was unable to get food or medical attention. Supervisory neglect includes if the maltreatment allegation was lack of supervision, if the primary or secondary caregiver engaged in substance abuse, if the primary caregiver had serious mental health issues, if the primary caregiver had a recent history of arrests or arrests in the past year, and if the primary caregiver reported any instances of domestic violence in the

home (either at the risk assessment or parent-report as the victim). A categorical variable for neglect subtypes will be coded as (1) Physical neglect, but not supervisory neglect, (2) Supervisory neglect, but not physical neglect, and (3) Both physical and supervisory neglect.

Child care characteristics. Child care characteristics will be assessed using four different items from parent reports at wave 1. First, parents were asked, "In the last 12 months, have you received child care on a regular basis?" and responses were coded as (0) No and (1) Yes. Second, parents reported on the type of child care, such as Head Start or care provided by a relative, and parents could select multiple types of care. These responses will be coded as (0) No care, (1) Formal care only (i.e., Head Start or center-based care), (2) Informal care only (i.e., care provided by a relative, friend, or family), (3) Other, and (4) Multiple types of care. Third, parents reported the number of weeks they received care in the past year and this was a continuous scale from 1 to 52 weeks. Fourth, parents reported on the number of hours per week on a continuous scale from 1 hour to 40 hours.

Cognitive development. Cognitive development will be assessed at waves 1, 2, and 3 using several age-specific measures. For children under 4 years old at wave 1, the Battelle Developmental Inventory 2nd edition was used to assess cognitive development (BDI; Newborg, 2005). In NSCAW, three cognitive domains were assessed, namely attention and memory, perception and concepts, and reasoning and academic skills. The total cognitive scale score for cognitive development will be used for children under 4 years. For children four years or older at wave 1 the Woodcock-Johnson III Tests of Achievement (W-J; Woodcock, McGrew, & Werder, 1994) will be used to measure cognitive development. The W-J includes assessments of reading, mathematics, writing, and factual knowledge for children 4 years or older with good internal consistency (.87-.93 overall; .61-.74 in NSCAW population). For NSCAW, children 5 to 11 years of age were administered the word identification, passage comprehension, and applied problems tests and an average score of these three assessments will be used to measure cognitive development.

Social skills. Social skills will be assessed at waves 1, 2, and 3. For children 3 years or older at wave 1, social skills will be assessed by the Social Skills Rating System (α = .73-95; SSRS; Gresham & Elliot, 1990), which measures cooperation, assertion, responsibility, and self-control. In the SSRS, parents reported on how often children engaged in certain behaviors (e.g. follow instructions). The SSRS has high internal consistency for NSCAW participants (α = .87-.90). In addition, the Vineland Adaptive Behavior Scale screener will be used to assess social skills for all ages (Vineland Screener; Sparrow, Carter, & Cicchetti, 1993). The Vineland Screener measures daily living skills and included 45-items which created two scales: Daily Living Skills and Socialization. The socialization scale included items on play, coping skills, and interpersonal relationships, and will be used to assess social skills (α = 0.96).

Behavior problems. Behavior problems will be assessed at waves 1, 2, and 3. The Child Behavior Checklist (CBCL; Achenbach, 1991) will be used to assess overall behavior problems for children 1.5 years and older at wave 1. Parents reported on whether children engaged in certain behaviors using a 3-point Likert scale (0= not true, 1= somewhat or sometimes true, 2= very true or often true). For children 1.5 to 5 years of age, there are 100 items, and for children 6 to 18 years, there are 113 items. The total behavior problems scale will be used for both age groups and the CBCL has high internal reliability (α = .80-96).

Covariates. Child-level covariates will include child race/ethnicity, age in months, sex, neurodevelopmental risk, and other types of abuse. Family level covariates will include

caregiver's age, caregiver mental health, marital status, number of children in household, and poverty status. All covariates will be drawn from wave 1.

Analytic Approach

All analyses will be modeled in Mplus 7.4 (Muthén, & Muthén, 2015) using SEM. I will use full information maximum likelihood estimation (FIML) to account for missing data.

RQ 1. How do different dimension of child care (e.g. participation, type of care, and quantity) relate to children's cognitive and social-emotional well-being among children involved in CPS for neglect? To examine how different dimensions of child care relate to children's outcomes despite living in a neglectful household, I will use multiple regressions to estimate how participation in child care, type of child care, number of weeks in care, and number of hours per week in care at wave 1 are associated with children's cognitive and social-emotional development. Given the age-specific nature of certain child outcomes (see Table 2), I will model developmental outcomes using regressions controlling for the prior wave.

RQ 2. How do these associations vary based on the type of neglect (e.g., physical and supervisory neglect)? I will use multiple group models to investigate whether the associations between dimensions of child care and developmental outcomes differ by neglect subtypes (supervisory neglect only, physical neglect only, and both types of neglect). First, I will estimate a fully unconstrained model in which all paths between child care (participation, type, weeks, hours per week) and child outcomes (mathematics, literacy, social skills, and behavior problems) are allowed to vary by neglect subtypes. Second, I will estimate a fully constrained model where all paths between child care and developmental outcomes are set to be equal across neglect subtypes. Then, I will use a chi-square difference test to compare whether the constrained model is a poorer fit than an unconstrained model. A significant chi-square difference test would provide evidence that an unconstrained model (i.e. variation by neglect subtypes) is a better fit than a constrained model. Again, I will estimate each developmental outcome separately.

Preliminary Results

Descriptive statistics of the sample can be found in Table 1. Preliminary results can be found in Tables 3 and 4. Child care participation at wave 1 was significantly related to lower behavior problems at wave 2 among children at least one year old and higher adaptive behaviors among the full sample. Child care participation at wave 1 was marginally related to better cognitive functioning at wave 2 among children under one years old. Child care participation at wave 1 was also related to significantly higher behavior problems at wave 3 among children under a year old. Child care participation at wave 2 was related to significantly higher social skills at wave 3 among children two or older. Future analyses will incorporate more rigorous testing using fixed effects models and include additional characteristics of child care in predicting children's developmental outcomes.

References

Dinehart, L. H., Manfra, L., Katz, L. F., & Hartman, S. C. (2012). Associations between center-based care accreditation status and the early educational outcomes of children in the child welfare system. *Children and Youth Services Review*, *34*, 1072-1080.

Hussey, J. M., Marshall, J. M., English, D. J., Knight, E. D., Lau, A. S., Dubowitz, H., & Kotch, J. B. (2005). Defining maltreatment according to substantiation: distinction without a difference? *Child Abuse & Neglect*, *29*, 479–492. https://doi.org/10.1016/j.chiabu.2003.12.005

Kovan, N., Mishra, S., Susman-Stillman, A., Piescher, K. N., & LaLiberte, T. (2014). Differences in the early care and education needs of young children involved in child

protection. *Children and Youth Services Review*, *46*, 139-145.
Lipscomb, S. T., Pratt, M. E., Schmitt, S. A., Pears, K. C., & Kim, H. K. (2013). School readiness in children living in non-parental care: Impacts of Head Start. *Journal of Applied Developmental Psychology*, *34*, 28-37.
Lipscomb, S. T., Schmitt, S. A., Pratt, M., Acock, A., & Pears, K. C. (2014). Living in non-parental care moderates effects of prekindergarten experiences on externalizing behavior problems in school. *Children and Youth Services Review*, *40*, 41-50.
Merritt, D. H., & Klein, S. (2015). Do early care and education services improve language development for maltreated children? Evidence from a national child welfare sample. *Child Abuse & Neglect*, *39*, 185-196.
Proctor, L. J., & Dubowitz, H. (2014). Child neglect: Challenges and controversies. In J.E. Korbin & R.D. Krugman (Eds.), *Handbook of Child Maltreatment* (pp. 27-61). Netherlands: Springer.
U.S. Department of Health & Human Services, Administration for Children and Families, Administration on Children, Youth and Families, Children's Bureau. (2017). *Child Maltreatment 2016.* Available from https://www.acf.hhs.gov/cb/resource/child-maltreatment-2016
Watamura, S. E., Phillips, D. A., Morrissey, T. W., McCartney, K., & Bub, K. (2011). Double jeopardy: Poorer social-emotional outcomes for children in the NICHD SECCYD experiencing home and child-care environments that confer risk. *Child Development*, *82*, 48-65.

Table 1. Descriptive Statistics of Covariates for Study 3

	In sample *N*=1,790	Not in sample *N*=4,082	Significance of difference
Child Characteristics			
Age (months) at year 1	1.42 (1.64)	6.11 (5.53)	***
Male	0.53	0.51	
Race			
White	0.33	0.35	
Black	0.32	0.31	
Hispanic	0.30	0.26	
Other race	0.05	0.08	***
Neurological risk	2.37 (0.71)	2.48 (0.68)	***
Household Characteristics			
Caregiver married	0.17	0.43	***
Caregiver mental health	2.53 (1.22)	2.22 (1.09)	
Caregiver education	2.85 (0.73)	3.20 (0.74)	***
Number of kids	2.31 (1.33)	2.56 (1.40)	***
Poverty status	0.69	0.41	

Note. * $p < .05$; ** $p < .01$; *** $p < .001$.

Table 2. Availability of Age-specific Measures based on Child Age at Wave 1

Indicator	Measures	Child Age at Wave 1 (*N*)				
		<1Y (669)	1Y (384)	2Y (160)	3Y (150)	4Y-5Y (249)
Social-Emotional Health						
Social skills	Social Skills Rating System (Gresham & Elliot, 1990)	3	3	2, 3	1, 2, 3	1, 2, 3
	Vineland Adaptive Behavior Scale (Sparrow, Carter, & Cicchetti, 1993)	1, 2, 3	1, 2, 3	1, 2, 3	1, 2, 3	1, 2, 3
Behavior problems	Child Behavior Checklist (CBCL; Achenbach & Rescorta, 2000)	2, 3*	1, 2, 3	1, 2, 3	1, 2, 3	1, 2, 3
Academic development						
Cognitive Development	Battelle Developmental Inventory (BDI; Newborg, 2005; under 4)	1,2	1,2	1	1	-
Academic achievement	Woodcock-Johnson (Woodcock, McGrew, & Werder, 1994; 5 and older)	3	3	3	2,3	1,2,3

Table 3. Social-Emotional and Cognitive Outcomes Assessed at Wave 2

	Child Behavior Checklist (Children 1 year or older at W1)		Vineland Adaptive Behavior Scale (All Children)		Battelle Developmental Inventory (Children under 1 years old at W1)	
	β	*p*	β	*p*	β	*p*
Child Care (W1)	-0.11	*	0.14	*	0.15	†

Note. † p<.10; * p < .05; ** p < .01; *** p < .001.

Table 4. Social-Emotional and Cognitive Outcomes Assessed at Wave 3

	Social Skills Rating System (Children Aged 2-5 Years at W1)		Child Behavior Checklist (Children under 1 years old at W1)		Child Behavior Checklist (Children 1 year or older at W1)		Vineland Adaptive Behavior Scale (All Children)		Woodcock-Johnson (Children Aged 3-5 Years at W1)	
	β	*p*	β	*p*	β	*p*	β	*p*	β	*p*
Child Care (W1)	0.1	†	0.14	*	-0.03		0		0.08	
Child Care (W2)	0.13	*	-0.05		-0.01		-0.03		-0.04	

Note. † p<.10; * p < .05; ** p < .01; *** p < .001.