The impact of after-school childcare arrangements on the developmental outcomes of low-income children

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ABSTRACT

Even though after-school programs (hereafter ASPs) and other types of childcare arrangements have long been implemented, childcare for school-aged children remains a patchwork made up of ASPs, relative care, parental care, and self-care, also with many families opting to use some combination of these types of care. Few studies, however, have examined the impact of various childcare arrangements for school-aged children aside from those focused substantially on ASPs.

This study aims to examine how five different after-school childcare arrangements, ASPs, relative care, parental care, self-care, and combinations of care, are related to the academic and behavioral outcomes among low-income, school-aged children.

The present study utilized data from the National Household Education Survey Programs: after-school programs and Activities (2005) (NHES: ASPA). Multivariate logistic regressions were conducted using 717 low-income households with children who utilized one of five childcare arrangements. Children's academic performance—academic scores and whether having schoolwork problems or not—and their behavioral outcomes that included whether having behavioral problems or not and whether having experience of suspension, detention, or expulsion, were examined.

Findings from the study indicate that, compared to children in ASPs, those in relative care and parental care had better academic performance (fewer schoolwork problems). Parental care was also positively associated with children's behavioral outcomes (fewer behavioral problems).

The study demonstrates that relative and parental care have a more positive association with children's developmental outcomes, compared to ASPs. Based on the study findings, practice and policy implications are discussed for low-income children's development. Several methodologies are also suggested for future research.

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1. Introduction

After-school programs (ASPs) were originally started in the early 1900s for the supervision and safety of children living in unsafe and poor communities, and they were further implemented to meet the need of growing maternal employment in the1940s. ASPs have gained attention for improving children's development and the improvement of the quality of their program activities (Lauer et al., 2006). Numerous studies have found that high quality ASPs have a significant and positive effect on children, especially when the children are most at-risk of poor developmental outcomes (Caughy, DiPietro, & Strobino, 1994; Hagekull & Bohlin, 1995; Posner & Vandell, 1994; Riggs & Greenberg, 2004; Roffman, Pagano, & Hirsch, 2001). ASPs are also helpful for children from low-income families, who do not have as many opportunities to participate in extracurricular activities or enrichment programs as those from middle/higher income families. Through providing after-school services and programs in the community, ASPs enable economically disadvantaged children to participate in various activities (e.g., group discussion, structured recreation, homework help) that would otherwise not be available (Little, Wimer, & Weiss, 2007).

Other than ASPs, there are other types of after-school childcare arrangements for school-age children between 5 and 13 years old, depending on family income, household composition, and state of residence (Lawrence & Kreader, 2006; Sonenstein, Gates, Schmidt, & Bolshun, 2002). Based on the data from the 2005 after-school programs and Activities of the National Household Education Survey (ASPA-

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NHES: 2005),[1] among all the children in out of school childcare arrangements, the majority (60%) are cared for by a parent during most or all of their out of school hours. In addition to parental care, the most common types of care for out of school hours are center- or school-based programs (20%), care by a relative other than a parent or older sibling (15%), self-care (12%), non-relative or neighborhood-care (6%), and finally various activities under a certain type of supervision (7%) (Lawrence & Kreader, 2006). Some children (around 32%) are in more than one care arrangement (i.e., some combination of care) (Lawrence & Kreader, 2006).

Even though many school-aged children are in different types of childcare arrangements, there has been a dearth of research examining non-school or informal after-school arrangements (Goyette-Ewing, 2000), compared to plentiful studies about ASPs. For example, only a handful of studies have investigated outcomes of different types of care; in particular, self-care, adult-supervised care and some combination of care. This distribution of research might cause people to assume that ASPs are the most important care type, which is not necessarily the case. Knowing that more than half of American school-aged children are engaged in after-school care arrangements other than ASPs, it is important to understand how the different types of care arrangements affect children and their families. The examination of the different types of arrangements will not only help assist families in making effective care choices, but will also help promote the well-being of low-income communities (Riggs & Greenberg, 2004). Therefore, the purpose of this study is to examine whether school-aged children from low-income families display different academic and behavioral outcomes based on different after-school childcare settings. Through employing two theoretical frameworks, Bloom's model of learning theory and Bandra's social cognitive theory, locating the most recent outcomes of different types of after-school childcare services would offer insightful ideas for educators, school social workers, and policy makers whose concern is the developmental areas of low-income children.

2. Different types of after-school childcare arrangements

2.1. Unstructured care arrangements

2.1.1. Parental care arrangement
This care arrangement is the type where children stay with one of their parents during out of school time (Sonenstein & Wolf, 1991). Parental care shows less flexibility and fewer working hours than care by others because both parents are constrained in their availability for childcare by their work outside the home (Hochschild & Machung, 1990).

2.1.2. Relative care arrangement
Children in this care arrangement are taken care of by their grandparents, older siblings, uncles, or anyone related to them in either the parents' or relative's home (Swenson, 2013). Nationally, 52% of the time the caretakers are the children's grandmothers (Christensen, Schneider, & Butler, 2011).

2.1.3. Self-care arrangement
Children are responsible for themselves without adult supervision (Lawrence & Kreader, 2006), or older children take care of themselves and their younger siblings during parental absence (Christensen et al., 2011).

2.1.4. Combination of care arrangement
Children are attending more than one type of childcare types. Combinations involve more supervised childcare arrangements for higher SES children and also involve more relative care for lower SES children (Pettit, Laird, Bates, & Dodge, 1997).

2.2. Structured care arrangements: after-school programs (ASPs)

ASPs have been significantly studied in terms of: the quality of programs and instructors/staff, partnerships with school, community institutions, and families, and the different types of programs offered (Little, Wimer, & Weiss, 2008). First, high quality ASPs provide a structured, safe, and supervised setting (U.S. Department of Education, 2000). The quality of programs is characterized by such critical factors as: safe and healthy climates; warm, attentive, well-prepared, highly trained professional staff; a low child-to-staff ratio (Little et al., 2008); and large quantities of program materials and activities (Campbell, Ramey, Pungello, Sparlin, & Miller-Johnson, 2002; Reynolds, Temple, Robertson, & Mann, 2001; Roffman et al., 2001). Qualified instructors are likely to encourage students to obtain specific skills and frequently provide effective feedback and guidance during activities (Little et al., 2007).

Second, partnerships with families, communities, and schools create high quality programs for children's development by providing additional resources (U.S. Department of Education, 2000; Little et al., 2008). Involved programs are likely to design fun and culturally relevant activities and climates that better capture participants' interests. Good programs take special notice of working parents during design and implementation (e.g., accommodating family schedules, affordability, and transportation) (U.S. Department of Education, 2000). Strong relationships with schools result in an increase in participants' homework completion rate, positive behavior, and increased initiative, staff engagement, and access to school facilities (Intercultural Center for Research in Education & National Institute on Out-of-School Time, 2005).

Finally, there are two types of ASPs—community-based and school-based programs (Committee on Community-Level Programs for Youth, 2000). Community-based programs are implemented by community organizations, such as the YMCA/YWCA, 4-H, libraries, sports organizations, or ethnic cultural organizations (Committee on Community-Level Programs for Youth, 2000). The goal of community-based programs is to provide opportunities for holistic youth development in addition to academic achievement (Brecher, Brazill, Weitzman, & Silver, 2009). They have grown in popularity through initiatives of the No Child Left Behind (NCLB) Act (U.S. Department of Education, 2000). Most participants in school setting are academically disadvantaged or minority children showing lower levels of math and/or reading (Casserly, 2004). As a result, school officials take after-school hours into consideration for improving academic subjects for disadvantaged students by providing convenience, instruction, and resources such as computer labs and books (Brecher et al., 2009).

3. Theoretical frameworks

3.1. Bloom's model of learning theory

According to Bloom's theory, there are three elements that affect students' learning: cognitive entry behaviors, affective entry characteristics, and the quality of instruction (Burns, 1996). Bloom emphasizes that "the cognitive and affective outcomes of instructions act as the cognitive entry behaviors and affective entry characteristics for the next component of instruction" (Burns, 1996, p. 331). Therefore, students who initially receive a low quality of instruction will have less success with subsequent topics related to their initial quality of instruction. Students with a high quality of instruction do not suffer from the compounding issues of those with a lower level of instruction, and

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[1] NHES in the U.S. Department of Education provides descriptive data of the educational activities of the U.S. population. The NHES surveys include all ages from early childhood to school age through adulthood. The most recent data file in 2012 consists of Parent and Family Involvement in Education and Early Childhood Program Participation (National Center for Education Statistics, 2015a). However, the most recent descriptive information of school-aged children is collected in 2005 (National Center for Education Statistics, 2015a).