**Background & Purpose**

In the 1950s, scholars began to analyze differences in the academic achievement of various groups of youth. They coined this difference "the achievement gap." Over the last half century, scholars from multiple disciplines have devoted significant time and energy to studying the achievement gap. This research has primarily focused on the achievement gap as it relates to two demographic characteristics: socioeconomic status and race.

More recently, scholars began documenting associations between child maltreatment and poor educational outcomes for youth involved in Child Protective Services (CPS; Eckenrode, Laird, & Doris, 1993; Kurtz, Gaudin, Wodarski, & Howing, 1993; Leiter & Johnsen, 1994; Perez & Widom, 1994). This research continues today, with greater focus on understanding the role of contributing factors in the achievement gap, including experiencing child maltreatment and out-of-home placement (OHP). Research has demonstrated that youth who experience maltreatment score significantly lower on standardized achievement tests than their peers (Eckenrode et al., 1993; Kurtz, Gaudin, Wodarski, & Howing, 1993; Piescher, Hong, & LaLiberte, 2012). Youth who experience OHP also struggle academically (Blome, 1997; Burley & Halpern, 2001; Smithgall et al., 2004).

Considering the vulnerability and experiences of youth with CPS involvement, academic disparities may not be surprising. However, few studies have attempted to address the academic performance of youth involved in CPS while controlling for factors that may influence academic outcomes, such as socioeconomic status and race. Extent of CPS involvement is another key factor left out of much of the current research.

This study sought to understand the academic achievement of youth in CPS compared to their peers by answering the following questions:

1. Is there evidence of a CPS achievement gap after controlling for differences in socioeconomic status and race?

2. If so, is more extensive involvement in CPS associated with increasingly poor academic outcomes?
Methods

Three groups were created (based on extent of CPS involvement) to assess the relationship between CPS involvement and academic achievement: Child Protection (CP), Out-of-Home Placement (OHP), and General Population (GP). Student proficiency on statewide standardized MCA-II math and reading tests were examined based on extent of involvement in CPS, race/ethnicity, and socioeconomic status.

Findings

Findings suggest that an achievement gap exists for youth in CPS as compared to youth who haven’t had CPS involvement. The proportion of youth that were proficient on MCA-II math and reading tests was consistently lower in the CP and OHP populations than for the general student population, even after controlling for race and socioeconomic status.

Although the odds of demonstrating proficiency increased for CPS-involved youth when controlling for socioeconomic status and race/ethnicity, significant differences between CPS-involved and non-CPS-involved youth continued to exist reiterating that an achievement gap exists for youth with CPS involvement regardless of whether they go on to experience OHP.

Table 1. Number of Youth Taking MCA-II Math and Reading Tests by CPS Involvement, 2009-2010

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<tbody>
<tr>
<td>Math</td>
<td>398,617</td>
<td>6,562</td>
<td>2,009</td>
</tr>
<tr>
<td>Reading</td>
<td>410,488</td>
<td>6,875</td>
<td>2,122</td>
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Through Minn-LInK, child welfare data (CPS and OHP experience) from Minnesota’s Department of Human Services were linked to Minnesota’s Department of Education records from the Minnesota Automated Reporting Student System (MARSS) and Minnesota Comprehensive Assessment (MCA-II). Three groups were created. The Child Protection (CP) group included youth who attended school in the 2009-2010 academic year and were involved in a child protection or assessment case in Minnesota during or prior to that academic year; these youth did not experience OHP. The Out-of-Home Placement (OHP) group included youth who attended school in 2009-2010 and had prior or current CPS involvement and OHP. The General Population (GP) group included all kindergarten-12th graders who attended public school in Minnesota during the 2009-2010 academic year and who did not appear in the CPS or OHP groups. Odds ratios of student proficiency on MCA-II math and reading tests were examined based on extent of CPS involvement (CP, OHP, or GP), race/ethnicity, and socioeconomic status (i.e., eligibility for free or reduced lunch) using logistic regression analyses. For this analysis, two levels of MCA-II proficiency were used – proficient (students who met or exceeded grade-level standards) and not proficient (students who did not meet or only partially met the standards).

As can be seen in Figure 1, the proportion of youth that were proficient on MCA-II math and reading tests was consistently lower in the CP and OHP groups than for the general student population. While approximately 70% of youth in the general population demonstrated proficiency on these tests, less than half of the youth in the CP and OHP groups demonstrated proficiency. Additionally, prior to adjusting for race/ethnicity and socioeconomic status, the odds of a child from the CP or OHP groups demonstrating proficiency on these tests were significantly lower compared to the odds of a child from the general population demonstrating proficiency. (See Figure 2.) In fact, CP youth were 2.8 times less likely ($p<.01$) to demonstrate proficiency in math and 2.9 times less likely ($p<.01$) to demonstrate proficiency in reading than their peers who didn’t have CPS involvement (i.e., the GP group). Youth with OHP were 3.8 times less likely ($p<.01$) to demonstrate proficiency in math and 3.5 times less likely ($p<.01$) to demonstrate proficiency in reading than their peers from the GP group. These significant differences among youth suggested that an achievement gap exists for youth with CPS involvement (regardless of whether they go on to experience OHP) as compared to youth who have not had CPS involvement.

Because of the racial/ethnic and socioeconomic disparities that exist in CPS and in the achievement gap overall, additional regression analysis was conducted to control for these factors. As can be seen in Figure 2, for youth with CPS involvement, the odds of demonstrating proficiency on standardized tests of reading and math increased when race/ethnicity and socioeconomic status were included in the analysis. When controlling for differences in
socioeconomic status across groups, CP youth were 1.8 times less likely ($p < .01$) to demonstrate proficiency in math and 1.7 times less likely ($p < .01$) to demonstrate proficiency in reading than their peers who didn’t have CPS involvement (as compared to 2.8 and 2.9 times for math and reading, respectively, prior to controlling for differences in socioeconomic status across groups). Youth with OHP were 2.2 times less likely ($p < .01$) to demonstrate proficiency in math and 1.9 times less likely ($p < .01$) to demonstrate proficiency in reading than their peers from the GP group. When controlling for differences in socioeconomic status and race/ethnicity across groups, CP youth were 1.8 times less likely ($p < .01$) to demonstrate proficiency in math and 1.8 times less likely ($p < .01$) to demonstrate proficiency in reading than their peers who didn’t have CPS involvement (as compared to 2.8 and 2.9 times for math and reading, respectively, prior to controlling for differences in race/ethnicity across groups). Youth with OHP were 1.9 times less likely ($p < .01$) to demonstrate proficiency in math and 1.8 times less likely ($p < .01$) to demonstrate proficiency in reading than their peers from the GP group.

There was no evidence to support the hypothesis that more extensive involvement in CPS produced a larger achievement gap after controlling for both socioeconomic status and race.

To further investigate whether deeper involvement in CPS produced a larger achievement gap, the odds of demonstrating proficiency on math and reading tests for youth in CP relative to OHP were compared. When controlling for socioeconomic status, CP youth were 1.2 times more likely ($p < .01$) to demonstrate proficiency in math and 1.1 times more likely ($p < .05$) to demonstrate proficiency in reading than their peers who experienced OHP. This analysis suggested that deeper involvement in CPS produced a larger achievement gap. However, after controlling for both socioeconomic status and race, there was no longer a gap between the performance of CP and OHP youth in either math or reading. The odds of proficiency for CP youth were not significantly different from the odds of proficiency for OHP youth in math (odds ratio = 1.069) or reading (odds ratio = .959). Thus, there was no evidence to support the hypothesis that deeper involvement in CPS produced a larger achievement gap after controlling for both socioeconomic status and race.

![Figure 1: Proportion of Youth Proficient in Math and Reading by CPS Involvement](image1)

![Figure 2: Odds Ratios for Proficiency in MCA-II Math and Reading by CPS Involvement as Compared to the General Population](image2)
Conclusion

This study sought to better understand the academic achievement of youth who have experienced out-of-home placement as compared to the academic achievement of their peers. This study extended the present literature by isolating the unique circumstances of being involved in CPS and controlling for potentially confounding variables (Berzin, 2008; Blome, 1997). Findings of this study suggest that an achievement gap for youth who are involved in the Child Protection System exists. Even after controlling for socioeconomic status and race, the academic performance of youth with CPS involvement was significantly lower than for youth without CPS involvement.

This study also sought to add to the literature by analyzing the relationship between academic outcomes and extent of CPS involvement. While unadjusted analyses suggested that more extensive CPS involvement was associated with lower academic achievement, the inclusion of race in analysis removed the achievement differences between the CP and OHP groups. This finding may be evidence of the racial disproportionality seen in Minnesota’s OHP (Minnesota Department of Human Services, 2010) rather than the presence of an achievement gap associated with more extensive involvement in CPS.

In sum, this study revealed that youth involved in CPS demonstrated poorer academic proficiency across both reading and math (regardless of whether they experienced OHP) than their peers. These findings are consistent with previous studies that demonstrated significant differences in academic achievement through standardized testing measures and grade-level expectations (Blome, 1997; Eckenrode et al., 1993). The finding of no difference in academic performance between youth in CPS and OHP suggests that interventions that wait for an OHP may be too late. The achievement gap is present by the time a youth is involved in CPS and therefore cross-system collaboration and information sharing should occur early in the CPS process. Although CPS involvement is not the cause of this achievement gap, educators and social service providers may use CPS involvement as a potential collaborative intervention point for ameliorating the achievement gap for these vulnerable youth.

Limitations

The study combined youth with previous and existing CPS involvement in the constructed CPS and OHP groups. As such, the time between a maltreatment event and the academic measurement was not accounted for by this study. Additionally, only two measures of academic achievement were assessed: the MCA-II math and reading standardized tests. Other markers of academic achievement were not captured in this analysis.

References


The Center for Advanced Studies in Child Welfare (CASCW) is a resource for child welfare professionals, students, faculty, policy-makers, and other key stakeholders concerned about child welfare in Minnesota. Minn-LInK is a unique collaborative, university-based research environment with the express purpose of studying child and family well being in Minnesota using state administrative data from multiple agencies.

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