Title: Opportunity NYC-Family Rewards: An Embedded Child and Family Study of Conditional Cash Transfers

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Abstract 4 Body

Limit 5 pages single spaced.

Abstract

Background / Context:
A wealth of research has shown that poverty has deleterious consequences for children’s development (Duncan & Brooks-Gunn, 1997; Gennetian, Castells, & Morris, 2010). As discussed in the first paper in this symposium, the ONYC-Family Rewards project represents an important test of an innovative approach to addressing this challenge. Paper 1 will present the core design and early findings from this study using parent-reported data and administrative sources of information. This last paper will present findings from an embedded study add-on to the core project, designed to collect information on the fundamental changes in the family setting and in children’s motivation that are presumed “mechanisms of action” of the program. Moreover, while not presented in this paper, this study addresses the impact of ONYC-Family Rewards on children’s mental health and behavior, key, non-targeted, outcomes for this intervention.

This study builds on and informs ecological theory (Bronfenbrenner & Morris, 2006) by focusing on the contextual processes by which individual developmental trajectories can be altered. Ecological theory posits that children are embedded in a nested and interactive set of interrelated contexts beginning with the micro-system (the most immediate setting in which the individual is embedded), to the interactions between microsystems (the meso-system), and to the more distal exo- and macro-systems. The bioecological model (Bronfenbrenner & Morris, 1998; 2006) also argues for the power of proximal processes—the interactions between persons and objects in their environment. Building on this theoretical framework, interventions that target and achieve alterations in the proximal processes between persons in their microsystem should be the most powerful to change individual developmental trajectories. This study will shed light on the effects of the Family Rewards program through this lens.

How might ONYC-Family Rewards influence the family microsystem? The literature suggests a wide variation in the aspects of the family environment that have links with developmental outcomes for youth. Existing frameworks (e.g., Moos, 1973; Wicker, 1987) have begun to tease apart the interrelated elements and proximal processes in contexts and social settings that shape individual development and well-being; such frameworks have argued that individual experiences and behaviors are shaped by proximal processes within each context, including (among other features): (1) transactions between individuals and individuals’ behaviors within the setting, (2) the psychosocial characteristics and climate of the setting, and (3) the allocation of resources within the setting. In this study, we draw upon these theoretical frameworks to hypothesize that three key features of family settings—family climate, norms, and expectations; family daily activities, routines, and parent-child interactions; and allocation of financial resources—are both conceptually and theoretically meaningful to examine and are likely to be influenced by ONYC-Family Rewards. We also hypothesize that exposure to ONYC-Family Rewards incentives will impact several critical developmental processes of children that are related to academic outcomes. Specifically, we test whether incentives – by changing family norms, expectations, social processes, and resources – influence children’s academic efficacy and outcome expectations, academic competence, and intrinsic motivation to learn. Preliminary findings on both of these topics will be presented in this paper.

A heuristic model of the effects of the offer of rewards as part of the CCT program on families, parents, and children is presented in Exhibit 1. As shown here, ONYC-Family Rewards could have implications for a number of family and child processes. Key domains of focus for
this embedded study (in bold) include: (1) family context and decision-making (family climate, norms, and expectations; resource allocation; time use); (2) children’s motivations and perceived competencies (academic efficacy, outcome expectations, intrinsic/extrinsic motivation); and (3) children’s mental health and behavioral outcomes (mental health, substance use, delinquency). We focus in this paper on the effects on the first two domains.

Purpose / Objective / Research Question / Focus of Study:

This study addresses the following primary research questions: (1) What are the effects of the package of conditional cash transfers provided by the ONYC-Family Rewards program on aspects of the family setting, including family climate and norms, social processes, and resource allocation? (2) What are the intervention effects on children’s motivations and perceived competencies, such as academic efficacy and outcome expectations, and intrinsic/extrinsic motivation, following reward receipt?

Setting:

The intervention was aimed at low-income families in six of New York City’s highest-poverty communities in the Bronx, Brooklyn and Manhattan.

Population / Participants / Subjects:

Overall, 4,778 families (with 5,051 adults and 11,489 children) are in the core study sample. The study focuses on youth in the oldest age cohort from the ONYC Core Study. These are children in 9th grade at baseline (N=513) and their families (representing approximately a 75% response rate), selected randomly from the larger core sample of families and stratified on youth pre-baseline math proficiency (given the larger impacts on children proficient in math discussed in Study 1).

Intervention / Program / Practice:

Opportunity NYC–Family Rewards was launched by the New York City’s Center for Economic Opportunity in 2007 as a three-year intervention. It is a two-generation CCT program designed to encourage changes in parents’ and children’s behavior by offering rewards (cash payments) for behavior in three key areas: family preventive health care practices (e.g., going to well-child visits), children’s education (e.g., attending school regularly, attaining particular scores on standardized tests), and parents’ workforce efforts (e.g., full-time work). Rewards for parental behavior and younger children’s behavior were paid directly to parents. Rewards for older children’s behavior were split between children and parents. (See detailed description in Abstract 1 in this symposium).

Research Design:

An add-on was included in the larger Opportunity-NYC—Family Rewards project. This effort added in a short survey with parents of the oldest cohort of youth who were in 9th grade at the start of the study and a longer (one hour) survey with youth themselves, fielded 24 months after families entered the study. Constructs proposed as part of this add-on study that are the focus of this paper are summarized in Exhibit 2. Measures included in this add-on study taps a theoretically-central domain that was identified in the development of the heuristic model, that has been used in prior large scale evaluations and/or efficacy trials, that has been used with low-
income populations of young children, with evidence of adequate measurement equivalence for ethnic minority, and that was brief, so that the survey/reporting burden was low.

**Data Collection and Analysis:**

Information was collected via surveys and school records, in three domains: (1) family context and decision-making (family climate, norms, and expectations; resource allocation; time use); (2) children’s motivations and perceived competencies (academic efficacy, outcome expectations, intrinsic/extrinsic motivation); and (3) children’s educational and mental health outcomes.

Survey data was collected from parents and children and administered by the Department of Information Resources (DIR) via telephone using a mixed-mode (CATI/Field) methodology. Once the sample was identified, parents and their children were contacted by phone or through flyers mailed to them at home. DIR’s field locators went out into the field to reach cases with invalid telephone numbers. While in the field, DIR’s field locators worked the sample by sending updated contact information to DIR’s CATI center or having the respondents call into DIR’s CATI center, using their DIR-issued cellular phone, to complete the survey. Thus, all completed surveys were completed in DIR’s CATI center. Additionally, while the sample was being worked in the field, DIR’s CATI interviewers continued to track, locate, and call sample members to complete additional surveys.

Analyses of the ONYC-Family Rewards intervention impacts on outcomes will be assessed using OLS regression. In order to increase the precision of the impact estimates and reduce the standard errors of the estimates, impacts will be adjusted for a small set of covariates, all measured before or at the time of random assignment.

Since random assignment only occurred with respect to the intervention (rather than any of the key mediators presented in the heuristic model), the strongest causal inferences can be made by investigating the effects of the intervention on both family processes and child processes and outcomes. However, the pattern of effects across parent-related and child-related outcomes can generate some hypotheses about the possible pathways through which these changes occurred. For example, if we find positive experimental impacts on academic efficacy and no effects on motivation, but positive impacts on academic achievement, we may plausibly hypothesize that the benefits to academic achievement were due to the gains in academic efficacy we observe.

**Findings / Results:**

As discussed in Abstract 1, the core findings show that the program substantially improved families’ economic position in the first two years, with the program boosting average monthly income by over $400 for families with the oldest children. For the 9th grade children that are the focus of this embedded study, the core study (see abstract 1) found positive impacts on education outcomes (based on administrative educational records; Riccio et al., 2010). While there were very few effects when all children are considered together, among ninth-graders who had scored at or above the basic proficiency level on their eighth-grade standardized tests prior to random assignment, the program led to a reduction of 6 percentage points in the proportion of students who repeated the ninth grade, a 15 percentage point increase in the likelihood of having a 95 percent or better attendance rate (in Year 2), an 8 percentage point increase in the likelihood of earning at least 22 credits (needed to remain on track for on-time graduation), and an increase of 6 percentage points in the likelihood of passing at least two Regents exams.
Data collection for this study was recently completed and the data file is currently being prepared for analysis. Findings will build on these results from the core study.

Conclusions:
The largest single contribution made by this embedded paper is to test for the first time in the global North whether an innovative set of CCTs positively impact key family-setting-level processes and children’s motivations and perceived competencies as key mediators of gains in educational outcomes. This embedded child and family study promises to provide both the academic and policy communities with a wealth of new information about this highly visible and innovative intervention.
Appendices
Not included in page count.

Appendix A. References
References are to be in APA version 6 format.


Appendix B. Tables and Figures
Not included in page count.

Exhibit 1: Heuristic Model of Intervention Effects

- Incentivized Behavior Change
  - Health
    - Health insurance
    - Doctor and dental visits
  - Education
    - Child school attendance
    - Parent conference attendance
  - Family Context - Decision Making
    - Health care management
    - Family climate, norms, expectations
    - Resource allocation
    - Time use
  - Parent(s)/Employment
    - Sustained full-time employment
    - Education and training

- Mediating Processes
  - Children’s Motivations and Perceived Competencies
  - Academic efficacy
  - Outcome expectations
  - Intrinsic/Extrinsic motivation
  - Family Resources
    - Income and material hardship
  - Physical/Health
    - Health status

- Targeted and Non-targeted Longer-Term Outcomes
  - Academic Outcomes
    - Test scores
    - GPA
    - Enrollment
    - Dropout
    - High School Completion
    - Post-Secondary school enrollment
  - Mental/Health and Behavioral Outcomes
    - Mental health
    - Delinquency activity
    - Substance use
    - Early family formation
Exhibit 2: Constructs included in embedded study

<table>
<thead>
<tr>
<th>Construct</th>
<th>Source</th>
<th>Description of Measure</th>
<th>Reference</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Family Context and Decision-Making</strong></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Family climate, norms, and expectations</td>
<td></td>
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<td></td>
</tr>
<tr>
<td>Adolescent disclosure</td>
<td>Child</td>
<td>5 items assessing children’s disclosure of behavior to parents.</td>
<td>Stattin &amp; Kerr (2000)</td>
</tr>
<tr>
<td>Parental support</td>
<td>Child</td>
<td>11 items assessing children’s perceptions of their primary caregiver’s autonomy support and involvement.</td>
<td>Adapted from Grolnick, Ryan &amp; Deci (1991)</td>
</tr>
<tr>
<td>Family chaos &amp; order</td>
<td>Parent</td>
<td>5 items about life at home.</td>
<td>Adapted from Matheny et al. (1995)</td>
</tr>
<tr>
<td>Conflict</td>
<td>Child &amp; Parent</td>
<td>11 potential sources of conflict. For each, Parents and youth are each asked to report whether they talk about these issues and how calm or angry they feel when they discuss these topics.</td>
<td>Adapted from Robin and Foster (1989)</td>
</tr>
<tr>
<td><strong>Resource allocation</strong></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Parent spending</td>
<td>Parent</td>
<td>Asks parent to report on child-related expenditures in the last month to a year, including food, healthcare, school-related and out-of-school activities, entertainment, and future education expenses.</td>
<td>Adapted from Lugo-Gil &amp; Yoshikawa, (2006)</td>
</tr>
<tr>
<td>Child spending</td>
<td>Child</td>
<td>Asks child to report on what they used their money for in the last 4 weeks and how much they spent each time based on a list of items provided.</td>
<td>Doss, Marlowe, &amp; Goodwin, (1995).</td>
</tr>
<tr>
<td><strong>Time Use</strong></td>
<td></td>
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<tr>
<td>Participation in structured activities</td>
<td>Child</td>
<td>9 items asking child what structured activities children participate in during the school year and how often.</td>
<td>Huston et al. (2003)</td>
</tr>
<tr>
<td>Quasi time diary</td>
<td>Child</td>
<td>Child is asked to report on what they did in a typical day after-school in the past week and on a typical weekend day, including structured and unstructured activities, who they were with, and for how long.</td>
<td>Adapted from American Time Use Survey (<a href="http://www.bls.gov/tus/">http://www.bls.gov/tus/</a>)</td>
</tr>
<tr>
<td><strong>Children’s motivations and perceived competencies</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Academic expectations</td>
<td>Child</td>
<td>2 items about how far child would like to go and will go in school.</td>
<td>Huston et al. (2003)</td>
</tr>
<tr>
<td>Mastery and Performance Goal Emphasis</td>
<td>Child</td>
<td>9 items on mastery goal orientation and performance avoid goal orientation.</td>
<td>Midgley et al. (2000)</td>
</tr>
<tr>
<td>Academic efficacy</td>
<td>Child</td>
<td>4 items assessing how easy or hard it is for child to deal with academic-related challenges.</td>
<td>Siedman et al. (1994)</td>
</tr>
<tr>
<td>School behavioral engagement</td>
<td>Child</td>
<td>4 items on students’ behavioral engagement in school, including listening, paying attention, and working hard in class.</td>
<td>Adapted from Furrer, &amp; Skinner, (2003)</td>
</tr>
<tr>
<td>Intrinsic and extrinsic motivation orientations</td>
<td>Child</td>
<td>16 items assessing the reasons why children do their school work (relative autonomy index)—with 4 subscales (external regulation, introjected regulation, identified regulation, and intrinsic motivation).</td>
<td>Adapted from Ryan &amp; Connell (1989) and Black &amp; Deci (2000)</td>
</tr>
</tbody>
</table>