

# Impact of Physical Indicators of Poverty on Adolescent Self-Efficacy

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## INTRODUCTION

Adolescence, the journey from childhood to adulthood, can be arduous even without obstacles to optimal long-term outcomes. Undoubtedly, the environments in which developmental processes unfold can significantly influence current and long-term functioning (Bronfenbrenner, 1986). Research conducted across multiple disciplines demonstrates that residing in an impoverished neighborhood can function as an introductory host to other developmental risks.

However, scant research has focused on the tangible, physical characteristics of high-poverty communities that may be associated with adolescent functioning. We examine relations between physical environmental characteristics, family relationships, and self-efficacy in a sample of impoverished Brazilian adolescents. Despite having a strong economy and the stable democracy, Brazil has one of the world's largest populations living in peri-urban slums (*favelas*) and is ranked 70<sup>th</sup> in the world on the United Nations Human Development Index. Gaining a better understanding of the effects of environmental characteristics on youth well-being may offer insight into the implementation of strategies and intervention programs that can strengthen existing normative processes, as well as ameliorate those in need of improvement.

## METHOD

### Participants and Procedures

- 6,695 Brazilian adolescents aged 14-19 (*M* age = 15.9 years).
- 54% female; 39.5% White, 16.2% Black, 4% Asian, 3.4% indigenous, and 36.9% mixed race.
- Recruited in impoverished neighborhoods in 9 Brazilian cities.
- Data were collected via self-report questionnaires.

### Measures

- Self-efficacy was measured with 8 items, e.g., I make things happen in my life ( $\alpha = .75$ ).
- Crowding composite was computed by dividing the number of occupants by the number of rooms.
- Number and ages of occupants under age 15 and over 15 years was calculated.
- Availability of services was assessed by whether or not the house had power, water, and sewage (1 = *yes*, 2 = *no*).
- Family support was measured with 5 items, e.g., I feel safe with my family ( $M = 2.59$ ,  $SD = .449$ ,  $\alpha = .75$ ).

## ACKNOWLEDGEMENTS

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**Table 1. Descriptive statistics for Household Residence Characteristics.**

| Variable                               | <i>M</i> ( <i>SD</i> ) or % |
|--|-----------------------------|
| <b>Crowding Composite</b>              |                             |
| Bedrooms                               | 2.66 (1.24)                 |
| Number of occupants                    | 4.25 (2.07)                 |
| <b>Number &amp; Ages of Occupants</b>  |                             |
| Under 15 years old                     | 1.06 (1.24)                 |
| 15 years or older                      | 3.04 (1.72)                 |
| <b>Availability of Services (%yes)</b> |                             |
| Indoor Plumbing                        | 72.7 %                      |
| Running Water                          | 95.6 %                      |
| Electricity                            | 96.7 %                      |

*N* = 6,695

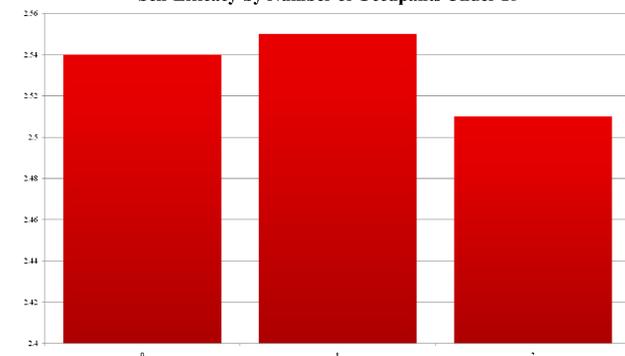
## RESULTS I

Regression analyses was conducted to evaluate relations between physical indicators of poverty and self-efficacy. Controls (gender and age) were entered at Step 1, followed by the variables of interest in Step 2.

- The coefficient for crowding was not significant.
- Self-efficacy was negatively associated with number of household members under 15 (beta =  $-.048$ ,  $p < .001$ ) and positively associated with number of household members 15 years or older (beta =  $.034$ ,  $p < .01$ ). This relation is graphically depicted in Figures 1 and 2.
- Self-efficacy was negatively associated with whether adolescents had electricity (beta =  $-.036$ ,  $p < .01$ ). See Figure 3.

**Figure 1.**

**Self-Efficacy by Number of Occupants Under 15**



## RESULTS II

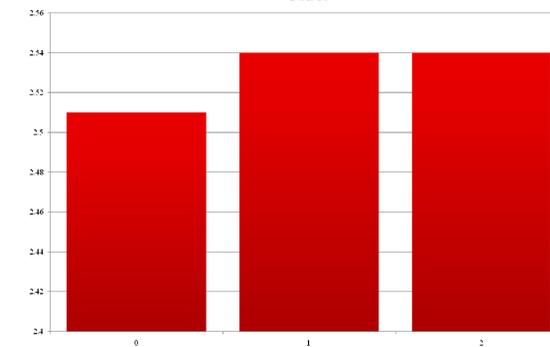
The first set of analyses found significant relations between physical indicators of poverty and adolescent self-efficacy. We next examined whether high-quality family relationships can compensate for an impoverished home environment, following Baron and Kenny (1986) approach.

- Criteria for mediation were met for two of the poverty variables (number of occupants under 15 years old in household and no electricity).

- However, criteria for mediation were not met for occupants 15 years or older.
- As shown in Figure 4, family support mediated the relation between number of occupants under 15 and self-efficacy (when family support was added to the regression model, the coefficient dropped to non-significance).
- Family support did not mediate between lack of electricity and self-efficacy (see Figure 5).

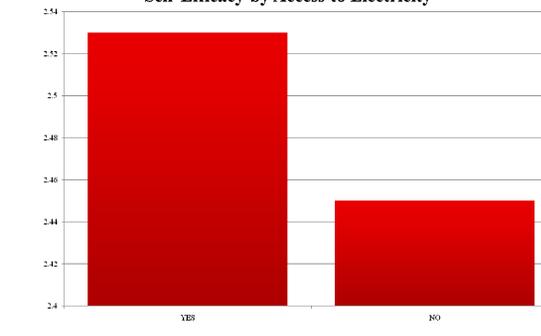
**Figure 2.**

**Self-Efficacy by Number of Occupants 15 Years or Older**



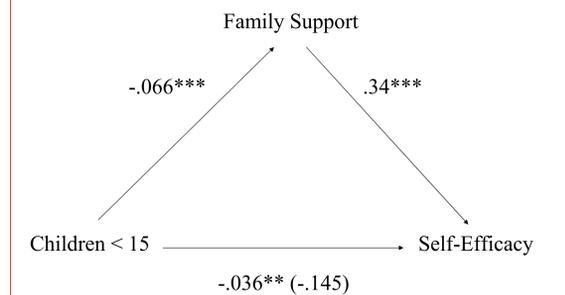
**Figure 3.**

**Self-Efficacy by Access to Electricity**



**Figure 4.**

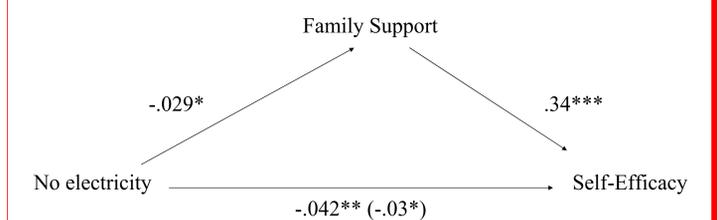
**Number of Children in Household Under Age 15**



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

**Figure 5.**

**Household Lacks Electrical Service**



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

## DISCUSSION

The goal of this investigation was to examine relations between physical indicators of poverty and self-efficacy in a sample of impoverished Brazilian youth. Research conducted primarily in the U.S. indicates that an impoverished living environment introduces a myriad of potential developmental threats. Our findings suggest that adolescents who live in households with large numbers of children experience lower self-efficacy, but that family support can lessen that association. Moreover, adolescent self-efficacy is positively associated with living in a household with higher numbers of adults.

These findings are consistent with work indicating that housing plays a significant role in adolescent social development because their family environment is a primary sphere for teenagers. Developmental studies rarely investigate how factors related to housing context impact adolescent-family interactions. Ultimately, housing creates a space for these interactions and events. The current findings suggest the value of exploring how physical characteristics of the home environment are linked to family interactions and adolescent outcomes.