



INTRODUCTION

- High-quality childcare has been linked to positive child outcomes, including higher cognitive scores (e.g., Burger, 2010).
- This link appears stronger for children from low-income families (e.g., Leob et al., 2007), but the cumulative effects of protection factors such as higher socio-economic status (SES), a larger social support network, and childcare quality have not been explored.

OBJECTIVE

This longitudinal study aims to explore how cumulative protective factors are linked to children's cognitive development at four, five and seven years old.

METHOD

Sample

- Part of a larger study on young children's living environments.
- The participants were **154 children** (82 girls),
 - 113 of whom had consistently attended center-based childcare beginning in their second year of life,
 - and 41 who were cared for at home by their parents.

Procedures

- Recruitment took place from 2009 to 2010 in Montreal (QC, Canada)
- Data collection took place when children were 4-, 5- and 7-years-old
 - Trained observers evaluate children's development;
 - Parents completed a questionnaire.
 - Process Quality of childcare was also observed when children were four.

Measures

Table 1. Dependents Measures (children)

Cognitive Development

At four and five years old:

Weschler Preschool and Primary Scale of Intelligence- Third edition (WPPSI-III) (Weschler, 2002).

- Verbal score (VQI)
- Performance score (PQI)
- Full Scale score (FQI)

At seven years old:

Wechsler intelligence scale for children—Fourth edition (WISC-IV) (Weschler, 2004).

- Verbal score (VQI)
- Performance score (PQI)
- Full Scale score (FQI)

Table 2. Independent Measures

Process Quality Educational Quality Observation Scale

Educational Quality Observation Scale (Drouin et al., 2004)

- An original observation scale developed for the Quebec context;
 - 153 items,
 - 4 dimensions:
 - Physical setting (44 items)
 - Activities (30 items)
 - Educator/child interactions (49 items)
 - Educator/parents interactions (7 items)
- Global quality score
- Scores from 1 to 4; ↑score = ↑quality
- Trained research assistants completed the observation during a 5-hour period (7:45am to 12:45pm).
- Interrater reliability for 15% of observations.
- Internal consistency, alphas from 0.81 to 0.93 for each dimensions

Global quality 3 and above = 1

SES

Family income

- Reported by parents and compared to Statistics Canada's low-income thresholds (2011), taking into account:
 - The number of people in the household
 - The area of residence.
- We determined whether families were situated below (0) or above (1) the poverty line according to these thresholds.

Family income above the poverty line = 1

Family structure

- Single-parent (0) or two-parent family (1) for at past year (minimum)

Two parent family = 1

Parental education

- Less (0) or more than a high school diploma (1)

More than high school = 1

Social Support Network

Arizona Social Support Interview Schedule (Barrera, 1980).

- The extent of potential support network ($r = 0,90$).
- A sum of the number of people in the social support network was calculated and dichotomised.

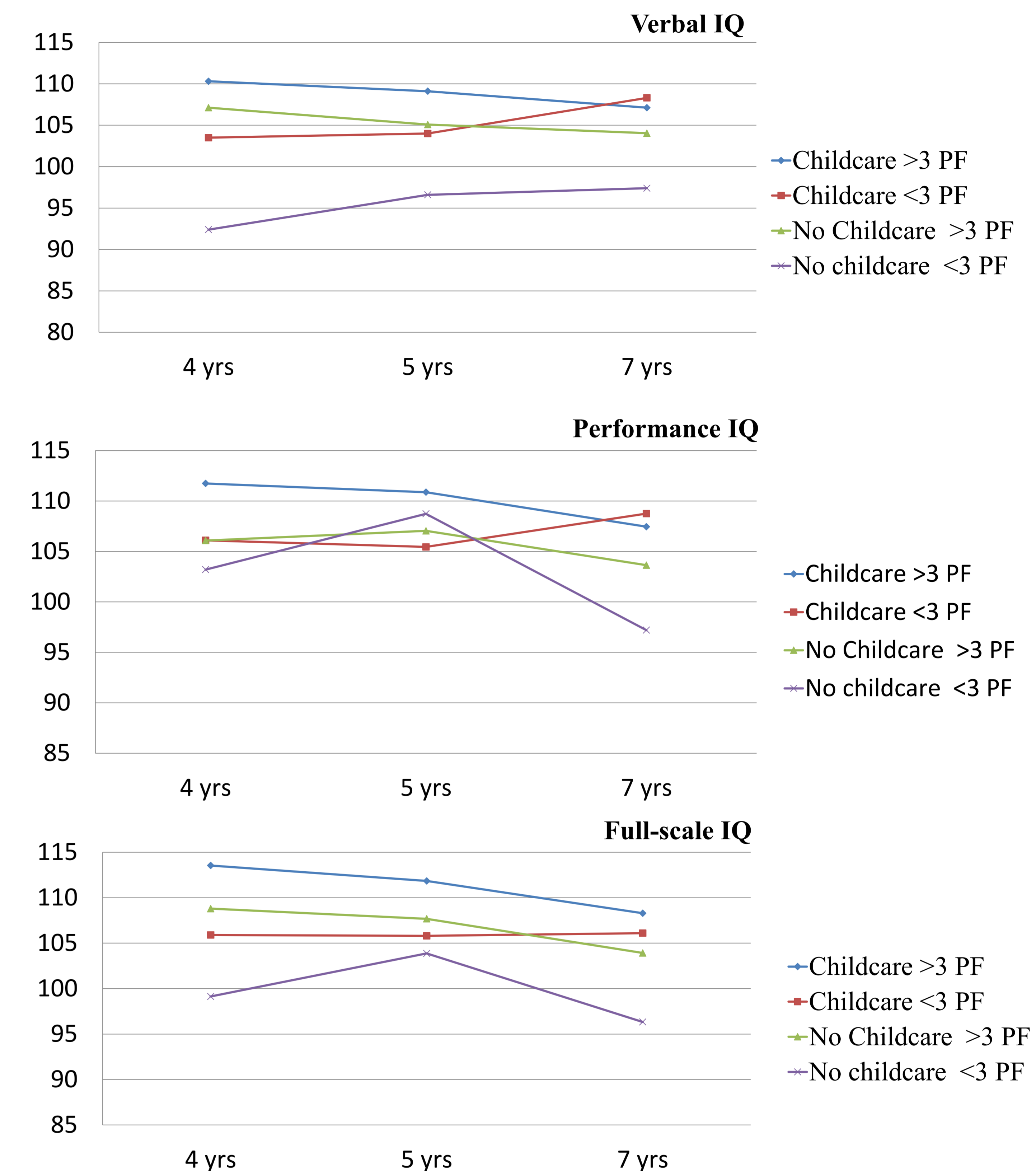
12 people or more = 1

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RESULTS

Figure 1: Cognitive Scores X Childcare Attendance X Protective Factors



DISCUSSION

Multivariate analysis revealed:

- A significant two-way interaction for age and childcare attendance for children with fewer protection factors;
- Children who did not attend childcare:
 - PIQ decrease between four and seven years old.
 - No interaction effect for children with more protective factors.
- Positive impact of childcare attendance on the cognitive development for children with fewer protective factors.
- Children with fewer protective factors in childcare obtain the same cognitive scores as children with more protective factors at home.
- It should be noted that a lower percentage of children with less than 3 protective factors attend childcare.
- Do higher-SES families select higher quality childcare programs?