Usage patterns and quality in Australian early childhood education and care programs

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E4Kids research team
Research Collaboration
1. Some policy interests

2. E4Kids study overview

3. Family demographics and the use of ECEC programs (LDC, K, FDC), and non-formal care (grandparent, friend...) 2 years before school

4. ECEC program quality 2 years before school

5. Some ideas and further questions
Some policy interests

1. Changing education trajectories before school – the promise and potential of ECEC

2. Access and quality: kindergarten and child care

3. Supporting children in families having greater risk factors
E4Kids – Study Overview

Research design:
• 5 year longitudinal study of 2,653 children (3-4 years old), their families, educators/teachers, directors/principals

Questions for this presentation
• When children were 2 years before school, what were the family characteristics, and the likelihood of children being in different kinds of ECEC?
• What was the relative process quality of these ECEC programs?
• What insights can be gained and what further analysis are in process?
E4Kids Sample and Location

Remote: Mount Isa
E4Kids n = 167 +
NPC n = 10

Greater Metro: Brisbane
E4Kids n = 961 +
NPC n = 62

Regional: Shepparton
E4Kids n = 336 +
NPC n = 16

Greater Metro: Melbourne
E4Kids n = 1028 +
NPC n = 71
Measures in E4Kids

♦ CHILD ASSESSMENT
- Height, weight, waist
- Cognition & Achievement: WJ-III
- Friendships/social inclusion: Bus story

♦ PROGRAM ASSESSMENT
- Pedagogy: CLASS
- Other characteristics: ECERS-R, 3 subscales

♦ QUESTIONNAIRE
- Director/Principal: structural aspects
- Educator/Teacher: child behaviour, structural aspects

♦ QUESTIONNAIRE
- Parent: ECEC program history/access; child behaviour, social skills; parenting style; home learning environment

♦ DATA LINKAGE
- NAPLAN
Patterns of care and education 2 years before school
How old were children 2 years before school?
Family demographics 2 years before school

- Main caregivers:
  - 35.94 years (SD = 5.21 years)
  - 91% female
  - 62% in labour force
  - 79% born in Australia

- Families
  - 90% two-parent
  - 50% between $50 000 and $124 999
Formal ECEC and informal care or only parental care?

- 2 years before
- 3 years before
- 4 years before

QLD: 4 3 2
VIC: 4 3 2
TOTAL: 4 3 2

Sole parental care
Any ECEC program or informal care
Mix of education and care before school

QLD

- Informal care only: 4
- Formal ECEC only: 3
- Both formal ECEC and informal care: 2

VIC

- Informal care only: 4
- Formal ECEC only: 3
- Both formal ECEC and informal care: 2

TOTAL

- Informal care only: 4
- Formal ECEC only: 3
- Both formal ECEC and informal care: 2
Hours in long day care 2 years before school
Hours of Informal Care 2 years before school
Hours in stand-alone Kinder
Statistical Analysis

What child and family characteristics are associated with formal ECEC use 2 years prior to school when we control for the effects of the others?

• We fit 3 models
  – Model 1 predicts total hours of formal ECEC in typical week
  – Model 2 predicts total hours of Child Care
  – Model 3 predicts the use of one formal type versus more than one formal type
All Formal ECEC: total hours of use
Long day care: hours of use
Odds of using more than 1 formal program
Key findings from analysis

• Relative importance of family circumstance over child characteristics

• Consistent findings
  – Labour force participation
  – History of child care use
  – Family composition and number of children
  – Main caregiver born overseas
So, what about the process quality of programs used by children?
## Process quality measured by CLASS

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<th>Emotional Support</th>
<th>Class Organization</th>
<th>Instructional Support</th>
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<td>• Positive Climate</td>
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<td>• Regard for Child Perspectives</td>
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- Pianta, Hamre et. al., 2009
Emotional Climate

![Box plot showing emotional climate across different room or group types. The box plot compares the emotional climate in different environments, with outliers represented in the plot.]
Classroom Organisation
Instructional Support (no LF)
1. Educational program and practice
2. Relationships with children
• E4Kids provides a very rich data source for progressing our understanding of the impact of participation in ECEC services on children’s learning and development that will be available to help guide future public investment.

• We face major challenges in providing all our children with access to high quality programs and the equally pressing problem of ensuring that our most vulnerable children receive this support.
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