Examining the Lasting Effects of the Nurse Family Partnership on Children Born to High-Risk Families

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Introduction

- **High risk families**: violence, substance abuse, mental illness, financial struggles (Families at risk, n.d.)
- Children at risk for developmental delays, abuse and neglect (CDC, 2016)
- More likely to partake in risky behavior and not succeed in school (Kent, 2009)
Intervention: Nurse-Family Partnership (NFP)

- Targets at-risk, first time mothers and their children, visits through child’s 2nd birthday

- Three **primary goals:**
  1. To improve the health of pregnancies
  2. To promote the health, development, safety of the child
  3. To help mothers with family planning, continuing their education, finding stable work

- **Secondary goals:** supporting familial relationships, connecting family with health/social services

(Thorland, 2016)
Nursing Significance

- Ensures access to adequate prenatal and women’s health care, care for children
- Improves parenting skills
- Connects families to resources
- Identifies/recruits families in any/all types of practice settings

(Nurse-Family Partnership, 2011)
Methods: Literature Review

- **Key words:** home visiting, prenatal and infancy, follow-up
  - CINHAL: 6 articles
  - PubMed: 12 articles
  - Trip: 555 articles
  - Google Scholar: 27,100 articles
- **Filters:** written in English, conducted in the U.S., published in the last 10 years
  - Trip: 22 articles
  - Google Scholar: 18,000 results
- **Key word:** “Nurse Family Partnership”
  - Google Scholar: 15,800 articles, first few pages skimmed
### 3 RCTs with Longitudinal Follow-Up

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<tr>
<td>Age of Children in Follow-Up</td>
<td>19 years olds</td>
<td>12 years old</td>
<td>Ages 2, 4, 6, and 9</td>
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- **Eckenrode et. al (2010)**
  - Setting: Elmira, NY
  - Age of Children in Follow-Up: 19 years old

- **Kitzman et. al (2010)**
  - Setting: Memphis, TN
  - Age of Children in Follow-Up: 12 years old

- **Olds et. al (2014)**
  - Setting: Denver, CO
  - Age of Children in Follow-Up: Ages 2, 4, 6, and 9
## Results: Educational & Academic Achievement & Success

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<tr>
<td><strong>No significant difference in high school graduation rates between intervention and control groups</strong></td>
<td><strong>Intervention group</strong></td>
<td><strong>Intervention group</strong></td>
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<td>• Higher reading/math scores on Peabody Individual Achievement Tests at age 12</td>
<td>• Higher rates of sustained attention at ages 4, 6, and 9</td>
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<td>• Higher reading/math scores on traditional achievement tests</td>
<td>• Higher rates of receptive language at ages 2, 4, and 6</td>
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<td>• Higher reading/math GPAs in grades 1-6</td>
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## Results: Emotional & Behavioral Problems

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<td><strong>Intervention group</strong></td>
<td><strong>Intervention group</strong></td>
<td><strong>No significant difference in borderline or clinical internalizing, externalizing, and total behavioral problems or attention dysfunction between intervention and control groups</strong></td>
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<td>• Girls less likely to have been arrested and convicted, less mean lifetime arrests and convictions</td>
<td>• Less cigarette, alcohol, and marijuana use</td>
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<td><strong>No significant difference in binge drinking and illegal substance use</strong></td>
<td>• Lower number of substances used in the past 30 days</td>
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<tr>
<td></td>
<td>• Lower number of days of substance use</td>
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<td>• Less likely to have internalizing behavioral disorders</td>
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<td><strong>No significant difference on external and total problems</strong></td>
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Discussion: Internal Validity

**Strengths**
- Randomized control trials: results attributed to the intervention itself (Barton, 2000)
- No dropout: seamless measurement
- Use of objective data: higher fidelity and accuracy in Olds and Kitzman studies

**Weaknesses**
- Discontinuity of implementation: nurse dropout in Kitzman study
- Possible variation of visit content/conduct: no way to measure (Roggman, 2001)
- Use of self report: creation of bias/inaccuracy in Eckenrode and Kitzman studies (Hoskin, 2012)
Discussion: External Validity

- Differences in outcomes more pronounced in low-resource families in all three studies

- **Generalize intervention** to young, inexperienced women pregnant for the first time of a low socioeconomic class

- **Do not generalize intervention** to older, more experienced women who have been pregnant before and are of a higher socioeconomic class
Implications for Nursing Practice

- **Public health nursing:** cultural sensitivity, form trusting relationship, focus on strengths of the client
- **Clinical nursing:** use of assessment skills to identify high-risk families with standardized scales/tools
- **Nurses everywhere:** advocate for early prevention/intervention programs, such as NFP
Future Research

- Seamless comparison
  - Standardization of measurement
  - Multiple studies on same age groups

- More diverse samples to prevent overgeneralization

- Additional follow-ups into adult life

- Program effects on pregnancy and parental outcomes
Conclusion

- Program effects most pronounced in school age children and in high risk families with low resources
  - Increased educational attainment and academic achievement: Olds (ages 2-9) and Kitzman (age 12)
  - Reduced emotional and behavioral problems: Kitzman (age 12) and Eckenrode (age 19)

- The Nurse Family Partnership does improve childhood outcomes and should be advocated for among healthcare professionals
References


