

UC Irvine

Seminar Papers and Posters

Title

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

Permalink

<https://escholarship.org/uc/item/7zk7n7qb>

Author

Lechert, Taylor A

Publication Date

2017-06-14

Supplemental Material

<https://escholarship.org/uc/item/7zk7n7qb#supplemental>

Copyright Information

This work is made available under the terms of a Creative Commons Attribution License, available at <https://creativecommons.org/licenses/by/4.0/>

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

— Taylor Lechert —



UCI Sue & Bill Gross
School of Nursing

The logo for the University of California, Irvine (UCI) School of Nursing, featuring the letters "UCI" in a large, bold, black sans-serif font, followed by the text "Sue & Bill Gross School of Nursing" in a smaller, black sans-serif font.

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)



(<https://upload.wikimedia.org/wikipedia/commons/thumb/d/dd/Achtung.svg/1169px-Achtung.svg.png>)

Intervention: Nurse-Family Partnership (NFP)

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

(<http://images.clipartpanda.com/clipart-family-family5.gif>)

- 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



(<http://images.clipartpanda.com/nurse-clipart-573c3a99440c54bdf8926186646f3c22.jpg>)

- 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

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

	Eckenrode et. al (2010)	Kitzman et. al (2010)	Olds et. al (2014)
Setting	Elmira, NY	Memphis, TN	Denver, CO
Age of Children in Follow-Up	19 years olds	12 years old	Ages 2, 4, 6, and 9

Results: Educational & Academic Achievement & Success

Eckenrode et. al (2010)	Kitzman et. al (2010)	Olds et. al (2014)
<p>No significant difference in high school graduation rates between intervention and control groups</p>	<p>Intervention group</p> <ul style="list-style-type: none">• Higher reading/math scores on Peabody Individual Achievement Tests at age 12• Higher reading/math scores on traditional achievement tests• Higher reading/math GPAs in grades 1-6	<p>Intervention group</p> <ul style="list-style-type: none">• Higher rates of sustained attention at ages 4, 6, and 9• Higher rates of receptive language at ages 2, 4, and 6.

Results: Emotional & Behavioral Problems

Eckenrode et. al (2010)	Kitzman et. al (2010)	Olds et. al (2014)
<p>Intervention group</p> <ul style="list-style-type: none">Girls less likely to have been arrested and convicted, less mean lifetime arrests and convictions <p>No significant difference in binge drinking and illegal substance use</p>	<p>Intervention group</p> <ul style="list-style-type: none">Less cigarette, alcohol, and marijuana useLower number of substances used in the past 30 daysLower number of days of substance useLess likely to have internalizing behavioral disorders <p>No significant difference on external and total problems</p>	<p>No significant difference in borderline or clinical internalizing, externalizing, and total behavioral problems or attention dysfunction between intervention and control groups</p>

Discussion: Internal Validity


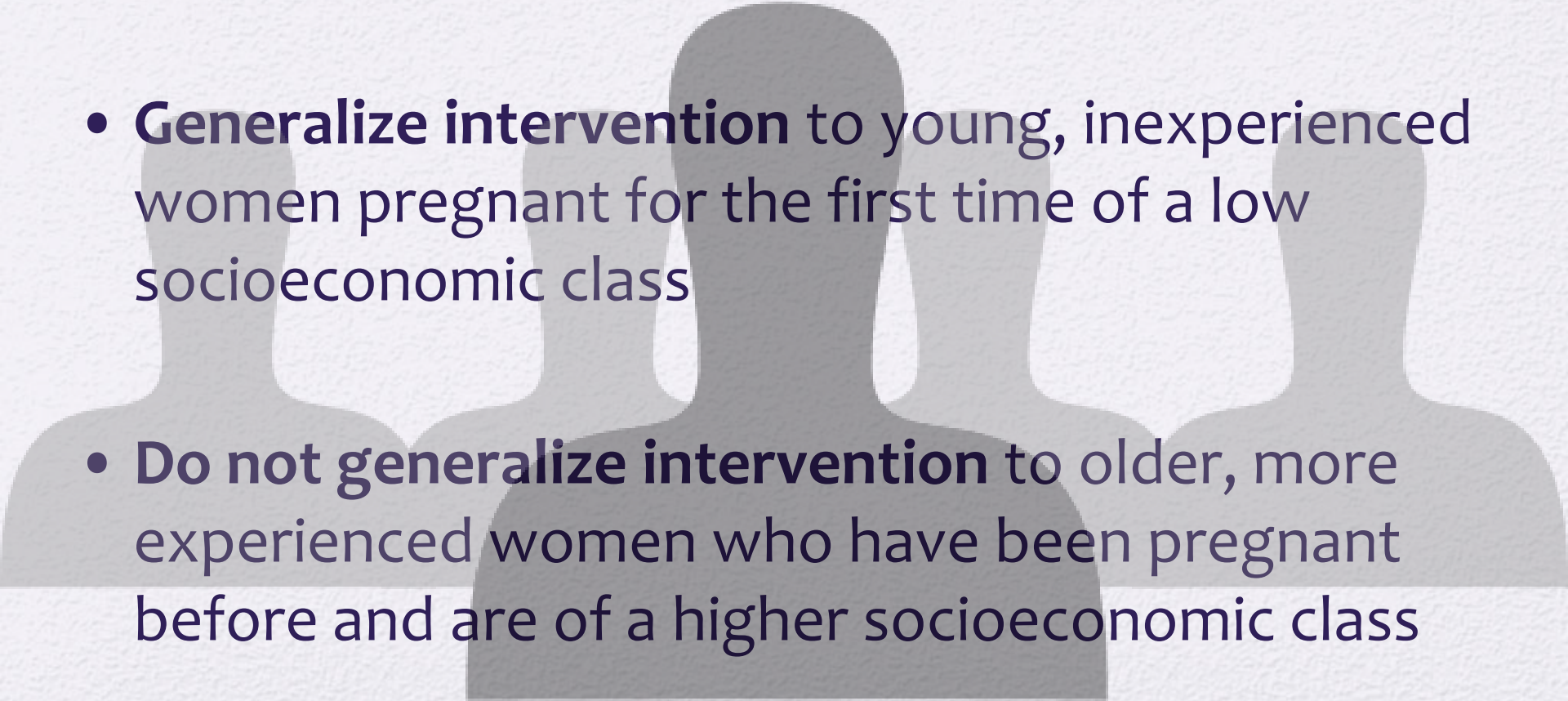
- Strengths

- **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

- Barton, S. (2000). Which clinical studies provide the best evidence? *British Medical Journal*, 321(7256), 255-256.
- Families at risk. (n.d.). Retrieved from <http://www.childhood.org/project-reports/families-at-risk/>
- Centers for Disease Control and Prevention. (2016, April 5). Child Abuse and Neglect: Risk and Protective Factors. Retrieved from <https://www.cdc.gov/violenceprevention/childmaltreatment/riskprotectivefactors.html>
- Eckenrode, J., Campa, M., Luckey, D. W., Henderson, C. R., Cole, R., Kitzman, H., Anson, E., Sidora-Arcoleo, K., Powers, J., & Olds, D. (2010). Long-term effects of prenatal and infancy nurse home visitation on the life course of youths: 19-year follow-up of a randomized trial. *Archives of Pediatrics & Adolescent Medicine*, 164(1), 9-15.
- Hoskin, R., PhD. (2012, March 3). The dangers of self-report [Web log post]. Retrieved from <http://www.sciencebrainwaves.com/the-dangers-of-self-report/>
- Kent, A. (2009, July). Vulnerable Youth and the Transition to Adulthood: Youth from Low-Income Families. Retrieved from <https://aspe.hhs.gov/basic-report/vulnerable-youth-and-transition-adulthood-youth-low-income-families>
- Kitzman, H. J., Olds, D. L., Cole, R. E., Hanks, C. A., Anson, E. A., Arcoleo, K. J., Luckey, D. W., Knudtson, M. D., Henderson, C. R., & Holmberg, J. R. (2010). Enduring effects of prenatal and infancy home visiting by nurses on children: Follow-up of a randomized trial among children at age 12 years. *Archives of Pediatrics & Adolescent Medicine*, 164(5), 412-418.
- Nurse-Family Partnership. (2011). Making new beginnings possible. Retrieved from <http://www.nursefamilypartnership.org/>
- Olds, D. L., Holmberg, J. R., Donelan-McCall, N., Luckey, D. W., Knudtson, M. D., & Robinson, J. (2014). Effects of home visits by paraprofessionals and by nurses on children follow-up of a randomized trial at ages 6 and 9 years. *JAMA Pediatrics*, 168(2), 114-121.
- Roggman, L. A., Boyce, L. K., Cook, G. A., & Jump, V. K. (2001). Inside home visits: a collaborative look at process and quality. *Early Childhood Research Quarterly*, 16(1), 53-71. doi:10.1016/S0885-2006(01)00085-0
- Thorland, B., PhD. (2016, November). The California Evidence-Based Clearinghouse for Child Welfare: Nurse-Family Partnership Program Registry. Retrieved from <http://www.cebc4cw.org/program/nurse-family-partnership/detailed>