

## **THE PUBLIC HEALTH NURSING EARLY INTERVENTION PROGRAM FOR ADOLESCENT MOTHERS**

**The Public Health Nursing Early Intervention Program (EIP) for Adolescent Mothers meets the Department of Health and Human Services (DHHS) criteria for an “evidence-based early childhood home visiting service delivery model,” because there is at least one high- or moderate-quality impact study with favorable, statistically significant impacts in at least two of the eight HomVEE outcome domains. At least one of the impacts is from a randomized controlled trial and has been published in a peer-reviewed journal. At least one of the impacts was sustained for at least one year after program enrollment.**

This short report provides summary information about the program model, research on evidence of effectiveness, and model developer contact information. A full model report and implementation profile will be available on the HomVEE website by fall 2011.

### **Program Model Description**

The Early Intervention Program (EIP) targeted pregnant Latina and African American adolescents who were referred to the county health department in San Bernardino, California for public health nursing care. The women were eligible for EIP if they were 14 to 19 years of age; no more than 26 weeks gestation; pregnant with their first child; and planning to keep the infant. Expectant mothers who were chemically dependent or had serious medical or obstetric problems were ineligible. EIP included home visits from mid-pregnancy through the child’s first year of life. During home visits, public health nurses used a variety of teaching methods to cover five main content areas: (1) health, (2) sexuality and family planning, (3) maternal role, (4) life skills, and (5) social support systems.

EIP was implemented as a collaborative demonstration project by the University of California at Los Angeles (UCLA) School of Nursing and the San Bernardino County Department of Public Health, Division of Community Health Services. The public health nurses who provided home visits study had at least a bachelor’s degree in nursing. They received special training and used written protocols as guides in implementing the intervention and traditional public health nursing services.

Prenatal visits focused on use of prenatal health care, preparation for childbirth, and self-care during pregnancy. In addition, the public health nurses conducted four “preparation for motherhood” courses focused on the transition to motherhood, the fetus as an individual, parent-child communication, and staying healthy. The courses used several teaching strategies including group discussion, role play, decision-making exercises, communication games, and maternal-fetal interactive activities.

During the postpartum visits, mothers received information on family planning, infant care, and well-baby health care. Nurses also delivered interventions designed to help mothers develop communication skills and learn how to assess their infants’ needs, respond to infant distress, and interact reciprocally with their infants. The public health nurses also counseled adolescents on maternal role issues (such as caretaking and fetal and infant development), education attainment, substance use, and mental health issues such as handling emotions, and they initiated referrals as needed for mental health counseling, family planning, and child care. Public health nurses performed videotherapy at regular intervals using a standardized protocol that involved videotaping the mother

performing a teaching task with her infant and subsequently soliciting the mother's opinion about the quality of the interaction.

EIP included home visits from mid-pregnancy through the end of the child's first year. The program included a maximum of 17 home visits—2 prenatal and 15 postpartum—each lasting 1.5 to 2 hours. Postnatal visits were to occur when the child was 1, 4, and 6 weeks old and at monthly intervals between ages 2 and 12 months. In addition, the public health nurses offered four “preparation for motherhood” courses.

## **Review of Studies and Evidence of Effectiveness**

The Home Visiting Evidence of Effectiveness (HomVEE) review identified four studies of the Public Health Nursing Early Intervention Program for Adolescent Mothers published between 1979 and 2009. All were eligible for review: one received a high rating and three received a moderate rating.

Across the studies receiving a high or moderate rating, one sample was used in the research. Initially 144 mothers were randomly assigned: 75 to the treatment group and 69 to the comparison group (information obtained from authors). One hundred twenty-one young mothers and their children participated in the study at six weeks postpartum.<sup>1</sup> Most were low-income, unmarried, and expecting their first child. Mothers ranged in age from 14 to 19 years old at intake (26 weeks or less gestation). Sixty-four percent of the mothers were Latina, 11 percent were African American, and 20 percent were white.

Taking into account all of the review results as of April 2011, EIP had favorable impacts on the child health and family economic self-sufficiency domains, and one unfavorable or ambiguous impact in the maternal health domain. EIP had favorable impacts on the total number of days infants were rehospitalized during the first six weeks of life and on additional days of rehospitalization by age six weeks. At age 1, EIP had favorable impacts on the total number of days of nonbirth-related infant hospitalizations, the percentage of children hospitalized, and the percentage of children adequately immunized. At age 2, EIP had favorable impacts on the total number of days of nonbirth-related infant hospitalizations, the number of episodes of hospitalization, and the percentage of families that never used the ER for the child's health problems. In the family economic self-sufficiency domain, EIP had favorable impacts on positive maternal education outcomes and positive education transitions at six weeks postpartum. EIP had an unfavorable or ambiguous impact on mothers' external social competence at six weeks postpartum.

## **Model Developer Contact Information**

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<sup>1</sup> At the age 1 follow up, 102 mothers participated; 101 participated in the age 2 follow up.

## References

### Impact Studies with High Ratings

Koniak-Griffin, D., Anderson, N. L., Verzemnieks, I., & Brecht, M. L. (2000). A public health nursing early intervention program for adolescent mothers: Outcomes from pregnancy through 6 weeks postpartum. *Nursing Research*, *49*(3), 130–138.

### Impact Studies with Moderate Ratings

Koniak-Griffin, D., Mathenge, C., Anderson, N. L., & Verzemnieks, I. (1999). An early intervention program for adolescent mothers: A nursing demonstration project. *Journal of Obstetric, Gynecologic, & Neonatal Nursing*, *28*(1), 51–59.

Koniak-Griffin, D., Anderson, N. L., Brecht, M. L., Verzemnieks, I., Lesser, J., & Kim, S. (2002). Public health nursing care for adolescent mothers: Impact on infant health and selected maternal outcomes at 1 year postbirth. *Journal of Adolescent Health: Official Publication of the Society for Adolescent Medicine*, *30*(1), 44–54.

Koniak-Griffin, D., Verzemnieks, I. L., Anderson, N. L., Brecht, M. L., Lesser, J., Kim, S., et al. (2003). Nurse visitation for adolescent mothers: Two-year infant health and maternal outcomes. *Nursing Research*, *52*(2), 127–136.

### Impact Studies with Low Ratings

None

### Implementation Studies

None