Home visits by paraprofessionals improved maternal mental health and mother-child interaction 2 years after visits ended


Two years after completion of a home visiting intervention, do the improvements in maternal and child health expected from paraprofessional (lay visitors/peer support or community workers) home visits emerge? Do the benefits attributed to home visits from professional nurses endure?

METHODS

Design: randomised controlled trial.
Allocation: concealed.
Blinding: blinded (data collectors).
Follow up period: 2 years of intervention followed up by a 2 year observational period.
Setting: Denver, Colorado, USA.
Participants: 735 pregnant women (mean age 20 y) who had no previous live births and either qualified for Medicaid or had no health insurance.
Intervention: Prenatal and postpartum paraprofessional home visits (PHV) (n = 245), nurse home visits (NHV) (n = 235), or a control condition (n = 255) until the child was 2 years of age. All participants received developmental screening and referral services for their children. The objectives of the home visitation programmes delivered by paraprofessionals and nurses included helping women to improve health related behaviours during pregnancy and helping parents to provide more competent care giving, plan future pregnancies, continue their education, and find work.
Outcomes: maternal outcomes included subsequent pregnancy outcomes, employment, incidence of physical abuse, use of child care, mother-child interaction, and mothers' sense of 'mastery' or control. Child outcomes included measures of emotional and language development. Home environments were assessed for their support of early learning.
Participant follow up: 86% for maternal interviews and 83% for child assessments.

MAIN RESULTS

Paraprofessional effects. When children were 2–4 years of age, mothers in the PHV group worked more (15.1 vs 13.4 h/wk, p = 0.04), had a greater sense of mastery (scores 102.5 vs 99.3, p = 0.03), and better mental health (scores 101.2 vs 99.2, p = 0.03) than mothers in the control group. When a subsequent birth did occur, fewer mothers in the PHV group than in the control group had a low birth weight infant (2.8% vs 7.7%, p = 0.03). Also, mother-child pairs in the PHV group displayed more sensitive and responsive interactions than in the control group (scores 100.9 vs 98.7, p = 0.03).

Professional nurse effects. Women in the NHV group had greater intervals between the births of their first and second children, reported less violence from partners, and enrolled their children less frequently in preschool, “head start,” or licensed day care than women in the control group (p values <0.05). Children in the NHV group had better language development, superior executive functioning, and better behavioural adaptation during testing than those in the control group (p values <0.05).

CONCLUSIONS

Two years after home visits ended (child age 2 y), paraprofessional home visits were associated with improved maternal mental health, sense of mastery, and mother-child interaction. In the nurse visited group, enduring benefits included improvements in spacing of births and child development.