ENCYCLOPEDIA on Early Childhood Development

HOME VISITING

Prenatal/Postnatal Home Visiting Programs and Their Impact on Children's Social and Emotional Development

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Introduction

Social and emotional problems in young children can be traced to mothers' prenatal health,[1-4] parents' caregiving[5,6] and their life-course (timing of subsequent pregnancies, employment, welfare dependence).[7,8] In addition, qualities of early parenting serve as a protective factor against adverse experiences such as poverty.[9] Home visiting programs that address these antecedent risks and protective factors may reduce social and emotional problems in children and youth.

Subject

Over the past several decades, carefully designed randomized trials of preventive home-visiting programs support the premise that promoting prenatal health, competent caregiving and families' living circumstances can improve children's health and development. Based on this evidence, investment in evidence-based home visiting programs has been made in the United States.[10] A US

federal agency determined that 21 programs out of 50 evaluated met their criteria for evidence-based home visiting programs.[10,11] Not all of these programs were evaluated in randomized trials, however, and reviews of home visiting programs find mixed results.[10-14]

Problems

Prenatal exposure to tobacco and other toxic substances, as well as obstetric complications have been implicated in the development of behaviour problems in children;[1-4,15,16] and there is now evidence that the impact of prenatal tobacco exposure is greatest in the presence of a specific genetic vulnerability.[17,18]

Child abuse, neglect, and excessively harsh treatment of children are associated with internalizing and externalizing behaviour problems, cognitive impairments, and later violent behaviour;[5,6,19,20] again, the impact of child maltreatment on severe antisocial behaviour appears to be greatest in the presence of genetic vulnerability.[21]

Family dependence on welfare, large families with closely spaced births, and single parenthood are all associated with compromised social and emotional development in children.[7,8,22,23] In addition, sensitive responsive caregiving serves as a protective factor against early adversity.[9]

Research Context

While some meta-analyses of home visiting programs suggest that many types of home visiting programs can make a difference in reducing adverse outcomes,[12,24,25] meta-analyses can produce misleading results if there are insufficient numbers of trials of programs represented in the cross-classification of home visiting program models, target populations, and visitors' backgrounds.

Home visiting programs share a common commitment to improve parents' early care of their children and most operate on the assumption that parents' prenatal health behaviours, care of their children, and life-course affect their children's social and emotional development.[26] However, other program features differ substantially, including families served, program content, visitors' backgrounds, and timing and duration of services. One review of home visiting and maltreatment-prevention concluded that programs delivered by paraprofessional home visitors were not effective in reducing child protection reports or associated impairments whereas those delivered by nurses reduced maltreatment.[27]

Key Research Questions

Understanding the effects of home visiting programs on children's social and emotional development begins with identifying programs that have affected antecedent risk and protective factors in addition to specific social and emotional outcomes. Specifically, what home visiting program models show the greatest promise for improving pregnancy outcomes, reducing child maltreatment, improving parents' life-course, and children's social and emotional development?

Recent Research Results

Improvement of pregnancy outcomes

Most trials of prenatal home visiting have produced disappointing effects on pregnancy outcomes such as birth weight and gestational age.[13,14,28,29] One program of prenatal and infancy home visiting by nurses, Nurse Family Partnership (NFP), has reduced prenatal tobacco use in two US trials[30,31] and two international trials,[32,33] marijuana use in one international trial,[33] and pregnancy-induced hypertension with a large sample of Black women.[31] Effects on preterm birth and low birthweight in one NFP trial were found for women identified as smokers and those who were very young (< 17) at registration.[30]

Improving positive parenting and reducing child abuse, neglect, and injuries

Several trials of home visiting programs have found favorable effects on parenting, based upon direct observations of caregiver-child interactions, evaluations of the home environment, and standardized reports of parenting attitudes and practices.[34-36]

One trial of NFP, tested with a primarily white sample, found a 48 percent treatment-control difference in rates of substantiated rates of child abuse and neglect and an 80 percent difference for families in which the mothers were low-income and unmarried at registration.[37] With a large sample of urban Blacks, an NFP trial found program effects on children's days hospitalized for serious injuries and ingestions at child age 2,[31] and reductions in preventable mortality[38,39] decades later, findings consistent with the prevention of abuse and neglect and dysregulated behaviour. A trial of the program in the Netherlands found reductions in child abuse and neglect reports.[40] A trial of NFP in England found no effects on child maltreatment reports,[41,42] but questions have been raised about the design of this study, including the validity of such reports.[43]

Early Intervention Program for Adolescent Mothers (EIP) employs nurse home visitors and has found that compared to infants assigned to usual care, EIP infants had fewer days in the hospital

and fewer total episodes of hospitalizations involving injuries, with program effects continuing to child aged 24 months.[44,45]

Maternal life-course

The effect of home visiting programs on mothers' life-course is disappointing overall.[26,46] In multiple trials of NFP, there were replicated effects on interpregnancy intervals,[31,37,47] use of welfare,[31,37] behavioural problems due to women's use of drugs and alcohol,[37,48] and, in one trial, arrests among women who were low-income and unmarried at registration.[37]

Children's social and emotional problems

NFP produced treatment-control differences in 15-year-olds' arrests and among 19-year-old females.[49,50] The effect on female convictions by age 18 was replicated as a trend in a second trial with urban Blacks; there earlier effects of the program on 12-year-olds'use of substances and internalizing disorders[51] and on working memory and ability to accurately read others' emotions at age 18.[52] In the third US trial of NFP, 6-month-old infants born to mothers with low psychological resources displayed fewer aberrant emotional expressions associated with child maltreatment,[53] and nurse-visited children were less likely to be classified as having total emotional/behavioural problems at age 6 years, internalizing problems at age 9 years, and dysfunctional attention at age 9 years.[54] NFP effects on reductions in internalizing and externalizing behavioural problems have been found in the Dutch trial.[40]

Additionally, two US programs implemented by Master's-level mental health or developmental clinicians (The Family Check-Up[55-57] and Child FIRST[58]), have found significant effects on a number of important child behavioural problems.

Conclusions

While home visiting programs hold promise for improving the social and emotional health of children, few have improved antecedent risks such as pregnancy outcomes, parental life-course, child maltreatment, compromised caregiving, and in turn reduced children's social and emotional problems. The programs with the greatest promise in affecting these outcomes have employed professional home visitors, with the strongest evidence coming from trials of nurse-visiting programs. In a trial that included separate treatment groups of nurse and paraprofessional home visitors, nurses produced effects that were twice as large as paraprofessionals.[53,54]

NFP has produced consistent effects on clinically significant outcomes in three separate trials in the US and in two international replications with different populations living in different contexts and at different points in social and economic history. A third international trial was exquisitely conducted but has produced limited replication of findings,[41,42] and has been challenged with questions regarding design.[43] Overall, these findings increase the likelihood that NFP will have applicability to a wide range of different populations. To date, NFP is the only prenatal or early childhood program that meets the "Top Tier" of evidence established by Evidence-Based Programs (Social Programs That Work, 2020, https://evidencebasedprograms.org/).

Implications

As programs are implemented in community practice, they are likely to serve more diverse populations, than those originally sampled, and with greater diversity in service provider backgrounds and experience. Therefore, on-going evaluation of evidence-based programs, such as HomVEE in the US, is vital.[11]

Programs with strong evidentiary foundations, and effective community replication standards, can reduce risks and adverse outcomes for fetal, infant, and child health and development. In deciding which home visiting programs policymakers should support, careful consideration should be given to the evidentiary foundations of candidate programs.

Finally, policymakers and practitioners should recognize the importance of program evolution to meet the changing needs of families and communities. One model for program augmentations starts with identifications of program challenges and moves on to formative development, rigorous testing, and then translation into practice.[59] Program evolution, grounded in adherence to good evidentiary standards, holds great promise for such programs, increasing the likelihood of improving the lives of vulnerable children and families.

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