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Evaluating Early Childhood Intervention Programs: Comments on Kitzman, Knitzer, and Lipman and Boyle

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Introduction

In recent years, several reviewers have evaluated the effects of early childhood education (ECE) programs for children.[1-6] Most of the research has focused on gains in children's cognitive development rather than behavioural development.[6] Overall, the results suggest that centre-based ECE programs that began in infancy have resulted in the most consistent improvements in children's cognitive and behavioural outcomes.[1,2,5]

These papers examine the effects of early childhood intervention programs on the social and emotional development of young children from low-income families. Knitzer provides an overall review on interventions, Kitzman focuses on the results of home visiting programs, and Lipman and Boyle focus on barriers to the receipt of services for young Canadian children. Taken together, these papers underscore the need to focus on the behavioural and emotional outcomes for poor children, the need for more rigorous evaluation of program intensity and attention to

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study attrition problems, and the need for long-term follow-up of children.

Research and Conclusions

These papers highlight the diversity of the interventions conducted over the past decades.

It is impressive that reductions in behaviour problems are generally found across the different modalities. Reductions in child behaviour problems last at least six months to a year after the intervention. While most studies have focused upon and found evidence of short-term effects, I believe there is notable research involving long-term effects, such as the High/Scope Perry Preschool Project, which found effects on delinquency at age 14 and less involvement with the criminal justice system at ages 19 and 27.[5,7] Retrospective Head Start data also show that those who attended Head Start were less likely to have been charged with a crime as an adult.[8]

Second, home visiting programs alone have less consistently demonstrated intervention effects for children. Home visiting programs tend to be more parent-focused, and thus have had more success altering parenting behaviour. However, there have been exceptions. The Nurse Home Visitation Program found effects for mothers as well as for behavioural outcomes of teenage children.[9] However, home visits in combination with centre-based care have been more successful in reducing children's behaviour problems.[10,11]

Third, although interventions have had an effect on parental behaviour, Knitzer, in particular, finds that there has not been a corresponding change in maternal depression. On the contrary, I believe studies have demonstrated effects for maternal depression. When the results of programs that have used random assignment to groups and provided family-oriented services to families through home visits are examined, mothers who received the treatment reported less depressive affect.[9,12-16] In my opinion, what deserves examination is whether maternal characteristics such as depression mediate the association between treatment and children's behaviour problems. To date, few studies have directly examined this question.[16-19]

Although there is consensus that families who experience multiple risks are the most likely to benefit from intervention programs, this population is not often served. Most of the work has been general interventions that promote child and family well-being. However, even if at-risk families are served, they are more likely to leave the program or less likely to participate. As noted by Lipman and Boyle, the availability of services in impoverished neighbourhoods, the accessibility of services and the psychological barriers to these services all present challenges to

research. Finally, whether and how the intervention can be effective in the face of multiple family risks is an issue that reverberates throughout these papers and the research literature.[20] The authors point out the greater success of multidimensional (compared to unidimensional) programs, however.

Implications for Development and Policy

These reviews signal the need for coherent research. The diversity of interventions conducted makes it difficult to draw any firm conclusions about what works and why. Studies need to provide more careful documentation of such information as the amount of time spent on various activities, and rely on the same curriculum approaches across sites. Existing research efforts can improve by first assessing the intensity of the program and a family's engagement in the program. To date, few studies have examined how the amount of intervention received influences the effects of such programs. Whether there is a minimum number of visits necessary to have an effect can be analyzed in two ways: by comparing those who used the intervention to those who did not, or by measuring how the relative level of participation predicts the size of treatment effects. A few different evaluations have used these approaches to show that program effects depend on the level of program participation.[21-26] Thus, programs such as home visiting can improve children's outcomes if services are sufficiently intensive. Few studies have examined family engagement in the intervention program.[27-28] However, they have found that mother and child involvement was associated with better child outcomes. Moreover, involvement by the home visitor may moderate intervention effects. Home visitors who help a mother learn more adaptive problem-solving skills and become involved in her daily life have had a positive effect on emotional health.[16]

If interventions are to be effective, physical and psychological barriers to services must be overcome. Even when services are available, they are not accessible. If parents are to utilize services, they need help with child care, transportation and flexibility in the hours and location of services. Some studies have dealt successfully with accessibility problems.29 Lipman and Boyle suggest that consumer research marketing techniques may be useful in identifying program preferences. Even if these barriers are overcome, psychological barriers remain. A lack of trust or confidence in service-providers or community institutions may prevent the use of services. In the case of behavioural problems, stigma presents an additional psychological barrier.

Future intervention programs need to resist financial pressures. Kitzman contends that interventions that have had a broad range of effects required significant resources and there is constant pressure to reduce the number of resources involved in implementation. However, economists such as Barnett have argued against under-investment in children, citing, for example, studies such as the Perry Preschool Project, in which benefits outweighed costs by a factor of seven to one.[1,30]

Intervention programs need to examine the interplay between social and emotional development and success in school. I would also add that observational measures on children's task engagement, persistence and enthusiasm are needed to supplement the existing measures.

Finally, the authors suggest that a more modest view of program effects needs to be adopted. There is a need to re-examine the general question of what it is reasonable to expect from any given intervention.[20] Many families face persistent poverty and multiple risk factors. One intervention alone cannot be expected to significantly alter their life trajectory. However, what is reasonable in terms of the size of the effects? Since cognitive effects are generally larger than behavioural effects, this expectation varies by outcome. What is reasonable in terms of duration of the effect? What is reasonable in terms of the overall breath or scope of the effect? Are effects expected for both children and parents? Are effects expected across cognitive, behavioural and health domains?

Overall, I agree with the authors that the field of early childhood intervention is still in its infancy with respect to determining the relative importance of any specific characteristic concerned. However, the fact that such programs most benefit those families facing multiple risks indicates that these programs have accomplished what they were set up to achieve.

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