

Early Childhood Development Series – Vol - I

There are 2 measure issues in which the childhood development depends:

- ◇ Language development and literacy
- ◇ Women Nutrition & Pregnancy



WOMEN NUTRITION AND PREGNANCY

How important is it?

Pregnancy, infancy and early childhood are the most significant periods of growth and development in the human life cycle. Poor nutrition during these critical growth and developmental periods places infants and children at risk of impaired emotional and cognitive development and adverse health outcomes.

The Canadian National Population Health Study (1998/1999) reported that over 10% of Canadians were living in food-insecure households. Food insecurity, which involves worrying about not having enough money to buy food, compromises the quality and quantity of food. Approximately 35% of Canadians in low-income households and 14% in middle-income households experience some form of food insecurity¹. Since poor and malnourished women find it difficult to achieve adequate nutrition, their health is compromised during their reproductive years. Women who enter each pregnancy with depleted physical resources perpetuate a cycle of mother-child malnutrition.

In Canada, two well-known programs, the Canada Prenatal Nutrition Program (CPNP) and the Community Action Program for Children (CAPC), have been implemented to support the prenatal/post-natal nutrition, health and development of women and young children. As national community-based health-promotion interventions, both the CPNP and the CAPC help community groups to establish and deliver services that address the health and nutritional needs of at-risk groups²

What do we know?

Quantity and quality of nutrients are essential to infant and child development. Many studies on nutrition have associated poor prenatal and early post-natal nutrition or malnutrition with a variety of developmental outcomes. Preterm and low-birth-weight (LBW) infants are especially vulnerable and more likely to experience some of these problems:

- growth retardation (weight, height, head size)
- delayed psychosocial development
- cognitive, educational and/or behavioral problems
- an increased risk of later psychiatric disorders

There is some evidence that the adverse effects of poor early nutrition can be reduced. Nutrient-enriched formulas have been shown to reduce motor and mental developmental deficits in preterm and LBW infants in the first 18 months of life. Although limited, psychosocial stimulation of growth-restricted infants helps improve their cognitive abilities. Other evidence supports the fact that LBW infants who are fed their mother's milk, compared to those fed bovine-based formula, have better short-term visual and developmental outcomes, although variables such as daily intake and duration of breastfeeding should also be considered.

While it is essential to improve preterm and LBW infants' development, research should also focus on the prevention of premature and low-weight births.

What can be done?

Improving maternal and child nutrition requires a range of strategies and interventions designed to ensure adequate diets prior to pregnancy, during pregnancy, breastfeeding, early childhood and all stages of the life cycle. Researchers strongly recommend the integration of services such as family planning, post-partum and breastfeeding support, nutritional and health-care services, with all services provided in one locale. The U.S. Supplemental Nutrition Program for Women, Infants and Children (WIC) is a highly regarded example of an integrated program that provides 1) supplemental foods; 2) nutrition education; and 3) referrals to health-care and social-service providers.

Education is an essential element in maintaining proper nutritional health. Caregivers need to be aware of how early feeding experiences, appetite regulation and dietary patterns affect the development of healthy eating habits and adult health, and the fact that these patterns can be passed down to the next generation. Healthy eating habits are formed in early infancy and depend on positive interactions between infant and caregiver. It is the caregiver's role to ensure that mealtimes are consistent, pleasant, family-oriented, social occasions that give children the opportunity to try a variety of nutritional foods required for healthy development. Additional research is needed on the familial and environmental influences, including cultural and Tran-generational factors that affect the development of healthy eating patterns.

Policy-makers and planners can greatly assist the improved nutritional health of women and children by supporting the development of evidence-based dietary guidelines and effective prevention and intervention services, especially for socio-economically disadvantaged families. They can also help by making maternal and child nutrition an integral part of comprehensive programs that serve women and children.

EARLY AGE LANGUAGE DEVELOPMENT AND LITERACY

How important is it?

Learning to talk is one of the most visible and important achievements of early childhood. New language tools mean new opportunities for social understanding, for learning about the world, for sharing experience, pleasures and needs. Then, in the first three years of school, children take another big step in language development as they learn to read. Although these two domains are distinct, they are also related. Early-language skills have been linked to later successful reading. As well, literacy and pre-literacy activities can help further children's language competencies in both the preschool years and later schooling.

Children with poor listening and speaking skills are referred to as having a language impairment. An estimated 8 to 12% of preschool children and 12% of children entering school in Canada and the U.S. have some form of language impairment. Studies also show that 25 to 90% of children with language impairment experience reading disorder, usually defined as poor reading achievement occurring after sufficient opportunity to learn to read. Reading disorder among school-aged children is estimated to be between 10 and 18%.

When children have difficulty understanding others and expressing themselves, it is not surprising that psychosocial and emotional adjustment problems ensue. Children with delayed or disordered language are therefore at increased risk for social, emotional and behavioral problems. As well, research shows that most children who have poor reading skills at the end of Grade One will continue to experience difficulties reading later on.

What do we know?

While the nature of the mental activity that underlies language learning is widely debated, there is considerable agreement that the course of language development is influenced by determining factors in at least five fields: social, perceptual, cognitive processing, conceptual and linguistic. As well, although individual differences among children do exist, language development has predictable sequences. Most children begin speaking during their second year, and by age two are likely to know at least 50 words and are able to combine them in short phrases. By age four to six, most children understand the idea of a sentence.

The amount and kind of language stimulation at home and family stresses such as child abuse contribute to children's language development. As well, the quality of interaction between a caregiver and a child – such as when playing word games or reading books – plays an important role in literacy outcomes. Children's skills progress more quickly and readily in instructional interactions characterized by sensitive, responsive and non-controlling adult input. Other aspects of parental behaviors, such as frequent and regular participation to learning activities and the provision of age-appropriate learning materials, favor the child's literacy outcomes.

Children with impaired language development are at greater risk for later behavioral problems, academic difficulties, learning disabilities and anxiety disorders. The most common behavioral problem is Attention Deficit Hyperactivity Disorder (ADHD); studies also show high rates of internalizing problems such as shyness and anxiety. Children with speech impairments are more likely to have difficulty with phonological processing, phonological learning and literacy.

Phonemic awareness refers to the ability to identify, compare and manipulate the smallest units of spoken words, phonemes. Phonemic awareness and vocabulary skills are, respectively, the best predictors of reading and reading comprehension. Some children are sufficiently competent in listening and talking, but have poor phonological processing abilities. At school entry, these children may be viewed as being at risk for reading disorder.

Finally, there is a markedly disproportionate representation of children who are poor and who belong to ethnic or racial minorities among those who struggle with reading.

What can be done?

Early language interventions during infancy or the preschool years can have a significant impact on child outcomes. There are at least four general contexts in which language intervention can be provided: individual, small group, classroom and caregiver training. Four language-teaching strategies have been demonstrated to improve children's language abilities. These are: prelinguistic milieu teaching, to help children make the transition from pre-intentional to intentional communication; milieu teaching, which consists of specific techniques embedded within a child's ongoing activities and interactions; responsive interaction, which involves teaching caregivers to be highly responsive to the child's communication attempts; and direct teaching, characterized by prompting, reinforcing and giving immediate feedback on grammar or vocabulary within highly structured sessions. In all cases, it is important to set the stage for language learning by creating opportunities for communication, following the child's lead, and building and establishing social routines.

In parent-administered language interventions, parents are trained by speech-language pathologists to become the primary intervention agents, learning how to facilitate their children's language development in daily, naturalistic contexts. (This differs from parent involvement, in which children receive direct attention from the speech-language pathologist and parents play a secondary but supportive role.) Parent-administered interventions have yielded short-term developmental progress in communication and language skills in a wide range of preschool-aged children with delayed or disordered language. However, little is known about the long-term effects of this cost-effective intervention model.

Social-policy initiatives should focus on early identification, comprehensive assessments and providing highly responsive environments early on. As well, appropriate training and continuing education should be provided to everyone who works with children and their families, such as speech-language pathologists, early interventionists, early childhood educators and child-care providers. Yet there are still several barriers to overcome. These include developing more sensitive screening measures to identify the various kinds of impairments, achieving consensus on case definition, and enhancing parent recognition of children's potential problems and the need to seek help.

References:

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