

Child Health Service in Hong Kong

The Child Health Programme for Hong Kong

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Abstract

This is an introduction to the Integrated Child Health and Development Programme (ICHDP), which is a population-based, health promotion and disease prevention programme for children 0 to 5 and their families, delivered through a network of 31 Maternal and Child Health Centres in Hong Kong. It comprises the three components of parenting, immunisation and health and developmental surveillance. The Comprehensive Child Development Service, a 2005 government policy initiative, augments the ICHDP with service components that address the special needs of at risk pregnant mothers, families with psychosocial needs, mothers with postnatal depression and preschool children with developmental problems. The current programme covers about 90% of infants born to local parents.

Key words

Child health services; Health promotion; Maternal-child health centres

Introduction

Development is defined as "a systematic, organised, intra-individual change that is clearly associated with age-related progression, and is carried forward in some ways that have implications for a person's pattern or level of functioning at some later time".¹ Developmental tasks or issues are conceptualised as being broadly integrative, cutting across the physical, cognitive and psychosocial domains. Issues or tasks at one stage lay the groundwork for subsequent ones.²

The Bio-socio-ecological framework views a child's development as being shaped by the interaction of both nature and nurture, including the child's biogenetic makeup, his/her experiences and interactions with others in the family, and the social environment.³⁻⁵ Though most

researchers nowadays agree with this view, it is also thought that the relative influence of the two may vary depending on the aspects of development considered.⁶ For example, physical development is strongly influenced by nature and given the minimum necessary environment, maturation will occur. Cognitive development lies in the middle of the continuum. While internal forces are clearly at work, it is well known that a host of environmental factors can influence cognitive development. Social emotional development is at the other end of the continuum where environmental forces are influential but genetic factors are still operational.

It is therefore important that all children be provided with an enabling home and social environment in order to promote their holistic development and to safeguard their health. During the early years of a child's life, the family plays a fundamental and crucial role in the upbringing of the child. To create a *health promoting home* environment for the child, parents and other significant caregivers need to be equipped with the necessary knowledge and skills in childcare and parenting; spend adequate time (adequate in terms of both quantity and quality) with the child; maintain their own psychological well-being and be ready to receive social support if needed.

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The Integrated Child Health and Development Programme (0-5)

The Integrated Child Health and Development Programme (ICHDP) is a population-based child health programme for 0 to 5 years that focuses on health promotion and disease prevention. The service is delivered through 31 Maternal and Child Health Centres (MCHCs). Every year, over 90% of the local newborn population are covered by this programme. The current ICHDP is the result of a review and re-development of the service since 2000, based on the needs of parents and the best evidence or model of good practice.^{7,8} It comprises the following 3 components designed to meet the developmental needs of preschool children in the physical, cognitive and psychosocial domains in a co-ordinated way. The three components are :

Parenting Programme – this new component was introduced in 2002. Parents are equipped with the knowledge and skills to take care of the child as well as to promote all aspects of their child's health and development. The *universal parenting programme* is for all expectant parents and parents/caregivers of pre-school children. They receive anticipatory guidance on childcare and parenting issues which are appropriate to the ages of their children. For parents of children with early signs of behavioural problems or those who encounter difficulties with parenting, an intensive parenting programme, the *Positive Parenting Programme* (Triple P) is available to help them deal with child behaviour problems.

Immunisation Programme – immunisation against nine infectious diseases (tuberculosis, hepatitis B, poliomyelitis, diphtheria, pertussis, tetanus, measles, mumps and rubella) is currently provided. The Childhood Immunisation Programme is recommended by the Scientific Committee on Vaccine Preventable Diseases (SCVPD) of the Centre for Health Protection of the Department of Health (DH). The SCVPD comprises paediatricians, infectious disease specialists and public health physicians, and is tasked to provide science-based advice on vaccine use at the population level.

Health and Developmental Surveillance Programme – health care professionals at the MCHCs work in partnership with parents and/or significant others in the continual monitoring of health and development of the child through:

(i) Newborn consultation – parents are encouraged to bring their baby to the MCHC for an initial assessment

as soon after discharge as appropriate. Neonatal jaundice and breastfeeding problems are the two commonest problems encountered which require close monitoring, counseling and/or referral. The opportunity is taken to identify any social or family concerns and to address childcare and parenting issues.

- (ii) Growth monitoring and nutrition assessment – the child's body length/height, weight and head circumference are measured at specified ages. Issues related to child's growth, e.g. healthy diet and weight maintenance, are discussed. The timely detection and referral of growth abnormality is also an objective.
- (iii) Developmental surveillance – for the early identification of developmental anomalies, the Comprehensive Observation Service (COS), has been implemented in the MCHCs since 1978. From 2004 to 2007, the COS was replaced by the Developmental Surveillance Scheme (DSS) in all MCHCs in phases. The DSS is a flexible and continuing process of identifying concerns from parents, teachers or significant others and skillfully observing children by knowledgeable health professionals, rather than the mere administration of tests. It encompasses all activities related to the detection of developmental problems and the promotion of development during primary child health care. MCH doctors and nurses are given systematic and intensive training to enable them to take good developmental histories and carry out reliable and valid observations so as to make appropriate recommendations.
- (iv) Hearing screening – this component aims at early identification and referral of bilateral, congenital or early onset, sensori-neural hearing impairment. A universal infant screening programme using automated oto-acoustic emission (AOAE) test was launched in MCHCs in August 2003 to replace the Distraction Test (DT) which has been in place since 1978. However, since the implementation of the universal newborn screening in all public hospitals in February 2007, the MCHCs perform only about 30% of all infant hearing screening.
- (v) Vision screening – this component aims at the detection of amblyopia and associated conditions (e.g. squint, anisometropia/severe refractive error) in preschool children. This has been administered by nurses for children 3 to 5 years since 1978. Between 2005 and 2007, screening by Optometrists or Orthoptists for 4-year-old children was phased in.

Children with significant health and developmental problems are referred for assessment and management by relevant specialists of the Hospital Authority (HA) and/or the Child Assessment Service of the DH, while those with significant family or social problems are referred to social services for follow-up.

The Comprehensive Child Development Service

The ICHDP has been designed as a universal child health programme. However, there are children and families with various needs that may not be adequately addressed by the core programme, for example, at risk pregnant women and families with psychosocial needs. Furthermore, postnatal depression (PND) affects about 10% of mothers. Not only the mental health of the mother, but that of the partner, the marital relationship, mother-child interaction, and the long-term emotional, physical and cognitive development of the child are affected.^{9,10} Besides, some child developmental problems may not manifest themselves until the child starts school. To address these issues, the Comprehensive Child Development Service (CCDS) was introduced as a government policy initiative in 2005, to augment the universal child health programme. It works through better alignment of health, education and social services and comprises additional components that aim at early identification and management of the following four target groups.

At-risk Pregnant Women

Pregnant women with substance abuse or mental illness, or pregnant teenagers are identified and referred to hospital Obstetrics Departments by various health and social service professionals during the antenatal period. Comprehensive assessments are conducted and management plans are developed to provide coordinated care and support. The mother and child are subsequently followed up by visiting paediatricians at MCHCs to facilitate convenient access to specialist and primary child health services at the same time.

Families with Psychosocial Needs

An assessment tool has been devised to facilitate MCH nurses to assess the psychosocial needs of families during their routine child health visits at MCHCs. Families in need are referred for further management by the Integrated Family Service Centres, which consist of a family resource unit, a family support unit and a family counselling unit,

providing a continuum of preventive, support and remedial services.¹¹

Mothers with Postnatal Depression

Mothers are routinely screened for postnatal depression by MCH nurses during their 2-month child health visit, using the Edinburgh Postnatal Depression Scale (EPDS). Depending on the mother's needs, counselling or treatment is provided by trained MCH nurses, visiting psychiatric nurses, or psychiatrists. Mothers with other social needs are referred to social services for further management.

Pre-school Children with Developmental Problems

Pre-school teachers are provided with ongoing training on the identification and management of children with developmental problems. A formal mechanism has been developed to enable pre-school teachers to refer these children to MCHCs for management.

Quality Management of Programmes

As a standard practice, formative and process evaluations are carried out during the development of programmes or health information/resource materials to ensure they are user-friendly and relevant for clients. Outcome evaluation is conducted where possible to evaluate the effectiveness of the programmes. For example, to evaluate the effectiveness of the breastfeeding promotion programme, regular breastfeeding surveys are conducted in MCHCs to track the rates of breastfeeding. Results of these surveys revealed that the rate for all forms of breastfeeding (including exclusive, predominant and partial) at 2 months had increased from 22% for babies born in 1997 to 37.2% for those born in 2006, while that for 6 months increased from 9% to 22.6%. The rate of exclusive breastfeeding for 4 to 6 months was 6% for the 1997 cohort, increasing to 13.3% for the 2006 cohort. Prior to the implementation of the Positive Parenting Programme, a randomised controlled trial was conducted, with results indicating that the programme was effective in improving the parenting sense of competence, parenting practices and marital relationships as well as reducing child behaviour problems.¹² A process and intermediate outcome evaluation of the CCDS, carried out about 15 months after the pilot demonstrated that the new initiative had facilitated intersectoral collaboration and organisational changes, resulting in the improvement of service quality in terms of access, acceptability and equity.¹³ A pilot infant hearing screening programme using the

AOAE test showed that it out-performed the traditional DT and the results compared favourably with recommended benchmarks.¹⁴ Furthermore, training to equip MCH staff with the necessary knowledge and skills to effectively deliver the services, performance management (setting standards, regular assessment and coaching if indicated) as well as provision of opportunities for continuous learning have been put in place to ensure a high service quality.

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