Review Article

The First 1,000 Days: Roles and Responsibilities of Pediatricians in Malaysia

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ABSTRACT

The first 1,000 days of a child's life is a critical period, affecting future well-being. There are many parties involved in optimizing this future potential, with different main drivers during different periods within the 1,000 days. Ministry of Health (MOH) Malaysia recognizes the importance and has conducted multiple initiatives to optimize health of children during the early years. In Malaysia, pediatricians in the public sector only serve in the hospital. Nevertheless, pediatricians play an important role both within and outside the hospital. In the hospital, the pediatrician manages acute illnesses and chronic conditions, screens for risks via assessing growth, development, feeding and missed vaccinations, supports families, and coordinates multidisciplinary support for the child. The pediatrician also educates the family members, junior doctors, the public and policy makers. Pediatricians practice evidence-based medicine, updating themselves with the latest studies and guidelines, while producing evidence via research, audits, and quality improvement initiatives. Pediatricians should contribute to health care policy development and guideline implementation to strengthen Malaysia's child health system. Last, but not least, the pediatrician must always be the advocate for the child, ensuring that the rights of the child are upheld. In conclusion, pediatricians play a pivotal role in the first 1,000 days of life initiative, enhancing Malaysia's capacity to build a healthier generation.

Keywords: Pediatricians, Child Health, Growth and Development, Public Health, Malaysia

INTRODUCTION

The first 1,000 days of a child's life, from conception until their second birthday, is an important period that shapes their future health. Building a good foundation during this crucial stage is important for their future well-being.[1]

In conjunction with this worldwide initiative, the Ministry of Health (MOH) Malaysia launched a manual for the first 1,000 days in 2023 with the objective of improving the knowledge of healthcare workers on children's growth and development, as well as parenting skills. It would act as a guide when educating parents and caregivers.[2] This comprehensive manual covers many aspects from maternal health, growth from fetus to the second year of life, child development, caregiving and parenting, nutrition, safety, and danger signs to sexual education for young children.

As the first 1,000 days is a very critical period for growth, brain development, and long-term health, MOH Malaysia has conducted multiple initiatives.[3–5] These include early antenatal care, baby friendly hospitals, routine health

clinic attendance, breastfeeding and complementary feeding policies.

There are many parties involved in optimizing the first 1,000 days of life. Primarily, the principal drivers would be the couple themselves, either as first-time parents or parents of a subsequent child. They require knowledge, skills and support in parenting and health care. These can come from extended family members or community, but more commonly from the internet and social media.[6]

From the healthcare side, there are many parties involved as well, with the main drivers changing throughout the duration. Throughout the duration and even before conception, health promotion and preventive medicine would be carried out by the public health and primary care teams. Throughout pregnancy, maternal health care involves the maternal and child unit, as well as obstetricians. Perinatal care involves joint care by the obstetric and pediatric teams. After birth, ideally, the child would be at home and have regular scheduled visits to the health clinics for vaccinations and general health screenings. In Malaysia, pediatricians in the public sector only work in the hospitals. Thus, the children only encounter the pediatricians if they fall ill.

If the child or parent has additional needs, further assistance may be required from lactation consultants, dietitians, physiotherapists, occupational therapists, and others. There are overlaps in the duties and responsibilities by the various stakeholders and multidisciplinary collaboration would greatly benefit and synergize all the efforts. A literal village is needed to care for a child.

The Role of the Pediatrician in the First 1000 days

The role of the pediatrician typically begins after the child is born. From then onwards, the growth of the child is a shared responsibility between the public health professionals, primary care doctors, and pediatricians, together with supporting staff such as dietitians to ensure that the child achieves genetic potential for growth and development.[7]

Hence, it is pertinent for the pediatric community to be aware of the importance of the first 1,000 days. However, an internal survey amongst 52 pediatric medical officers in a pediatric hospital in Malaysia found that 46.2% knew the correct duration meant by the first 1,000 days of life.[8] Therefore, pediatricians and health care workers in the pediatric fraternity should be aware of the importance and role of the pediatrician in the first 1,000 days of life. The roles include disease management, opportunistic screening, family support and multidisciplinary coordination in the hospital. The role of the pediatrician should not be limited to the bedside, but also include education, supporting evidence-based medicine, policy advancement, and child advocacy out of hospital.

Disease Management

The most direct role of the pediatrician is to manage diseases and adverse conditions faced by the child. This starts from the newborn period, where newborns may require resuscitation in the labor room. This is further complicated in cases of infants who are premature, have low birth weight or have congenital abnormalities. Pediatricians need to recognize and manage neonatal complications that arise.

This role continues beyond the newborn period, with children being seen for acute illnesses, chronic conditions, or disorders in growth and development. These encounters could be at the emergency department, in the hospital or during follow-up in the pediatric clinic. As children under two years of age had a higher risk of preventable deaths, higher vigilance should be in place when treating children within the first 1,000 days of life.[9]

Opportunistic Screening

Hospital admissions or clinic visits should be seen as a window of opportunity for the pediatric team to screen for risks that may have otherwise been missed. These include assessing vaccination status, growth, development and feeding. A child admitted for pneumonia may have underlying malnutrition due to social issues such as food insecurity. During admissions, the focus should not only be on the acute disease, but also on the possible underlying factors or hidden issues that are detrimental to the child's future health. An admission for recurrent pneumonia may have been avoided if the underlying chronic issue was handled during a previous visit.

The triple burden of malnutrition is increasing throughout the world. In Malaysia, the prevalence of childhood overweight has almost doubled over 26 years.[10] Stunting prevalence is also increasing.[11] Overweight, underweight, stunting, and wasting are all factors that negatively affect future health. During the brief encounter with patients, pediatricians should always assess the anthropometric measurements and plot on the growth chart. Children with malnutrition should be managed well, especially during the first 1,000 days of life, when the situation is still reversible, and the same effort leads to higher increments of improvement.

Pediatricians should conduct a simple developmental assessment, just to ensure that the appropriate developmental milestones are met and that there are no red flags. Developmental interventions need to be implemented early, especially in preterm infants.[12]

Most of the vaccinations given under Malaysia's National Immunization Program are within the first 1,000 days of life.[4] Compliance to vaccination is important to prevent vaccine-preventable diseases. Any children identified to have missed vaccinations should be given catch-up vaccinations. This can be given prior to discharge if they are well enough or communicated to the primary care clinics for vaccinations there. This would ensure that children receive the protection that they deserve.

Support for Families

Attendance at the hospital due to a child's illness could represent a call for help from the family. New parents may not know the right way to care for their child. A child admitted for vomiting and diarrhea could be due to improper storage of expressed breast milk and hygiene issues. It is part of the duties of a pediatrician to identify such issues and provide behavior modification for the family.[13] In the context of the first 1,000 days of life, even if the child admitted is above two years old, there could be a younger sibling who would benefit from improving the household condition.

Besides the child's wellbeing, pediatricians should also be attentive to the caregiver's wellbeing. The family's physical, mental, and socio-economic status can directly affect a child's health. A pediatrician may not be able to handle postnatal depression, maternal exhaustion, and financial difficulty, but should be able to recognize and identify these conditions and link the families to the appropriate support needed.

Multidisciplinary Coordinator

As mentioned above, after identifying issues faced by the child and family, not all of them can be handled by the pediatrician alone. Thus, the pediatrician needs to be a coordinator among multidisciplinary teams. A child who was born extremely premature may require care provided by neonatologists, ophthalmologists, audiologists, primary care doctors, dietitians, occupational therapists, speech therapists and more. All of these teams should not be working in silos, and the pediatrician should take up the role of understanding and coordinating the care received by the child. If a child has missed or defaulted on some of the follow ups, a pediatrician should facilitate the process of obtaining a new appointment.

A child who is discharged from the hospital does not mean that their care has ended. A good discharge plan is imperative for continuing care for the child. Discharge summaries can be a good communication tool between that hospital admission and any future encounters with health care. Besides that, a note in the child health record to the nearby primary care clinic would ensure that important findings are shared and there is continuity of care.[3] For clinics and hospitals that have electronic medical records, digital health records would facilitate this.

Educator

The word doctor originated from the Latin word *docēre* meaning to teach. That is why pediatricians should not forget their role as an educator, be it for parents, medical students, junior doctors, the community, and policy makers.

When a child is admitted, a pediatrician is able to meet with parents or family members. The pediatrician should take this opportunity to educate the parents on the condition of the child and guide them on positive healthcare behaviors.

Besides that, the pediatrician should always try their best to educate the next generation of doctors. This includes the medical students who will be future doctors, house officers and medical officers. These teaching or guiding sessions can be conducted during ward rounds, sharing sessions or tutorials.

Outside the hospital, pediatricians have a role in increasing public awareness on the importance of the first 1,000 days of life. Education can be given via webinars, podcasts, and social media. Spreading knowledge on the importance of vaccination would decrease vaccine hesitancy.

Pediatricians attending meetings with policy makers have a duty to give the right knowledge to them to make the right decisions.

Evidence-Based Medicine

Pediatricians should keep themselves up to date with the latest advancements in medicine. National level clinical practice guidelines should be developed based on the latest valid evidence.

Pediatricians should strive to be producers of evidence by active participation in research, audits, and quality improvement initiatives. Initiatives based on foreign information might not be applicable to the local context. Local studies and experiences may give a different picture.

Involvement in Systems and Policy Making

A pediatrician's role is not limited to the hospital. Pediatricians can play a large role in contributing to policy development and guideline implementation. For example, breast feeding initiatives, nutrition programs for infants, and early interventions should include pediatricians from planning until implementation. Their perspective will help strengthen Malaysia's child health system.

Advocate for the child

All children have the right to good health. The pediatrician has to be the advocate for the child at all times. This may include invoking the Child Act when the parent's decisions are not in the best interests of the child.[14]

Whenever there is a death among children aged less than five years old, there has to be a mortality discussion. The pediatrician should lead the discussions and try to discover how the health care system failed to prevent it. This should be followed by proposing methods to strengthen the system to avoid such issues from repeating.

It is assumed that all children residing in Malaysia receive the optimum level of care equally. However, Malaysia has differing geography, economy, infrastructure and manpower which may affect accessibility to healthcare service.[8] It was found that children less than two years of age, non-citizens, families with household incomes less than RM3000, Orang Asli and Bumiputera Sarawak ethnicities have a higher estimated risk of preventable deaths. Free health care for all children less than five years old may help to address the issues.

In conclusion, MOH Malaysia has established a comprehensive framework for optimizing child health in the first 1,000 days. Pediatricians play a pivotal role within this ecosystem, integrating clinical expertise with preventive care, developmental surveillance, nutrition stewardship, and safeguarding. Their responsibilities extend to coordination with primary care, community services, and social agencies, as well as advocacy and quality improvement. Aligning pediatric practice with MOH guidelines on the first 1,000 days of life enhances Malaysia's capacity to reduce stunting, improve developmental outcomes, and build a healthier generation.

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