

Perspective

An Integrated Framework for Developing Health Services for Prenatal and Maternal Health as Major Global Health Concerns

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Received: August 24, 2016; **Accepted:** November 04, 2016; **Published:** November 11, 2016

Abstract

Prenatal, perinatal and early childhood health and well-being have long-lasting effects for individual children, their families, care-providers, educators, policy makers and the society, making children's health and its disparities important concerns for all. Although during the last decades great improvements in prevention of infection and mortality among young children have developed, other health concerns such as early childhood mental health and its challenges, childhood obesity, asthma, autistic spectrum disorder and fetal alcohol spectrum disorder have been on the rise and continue to pre-occupy parents, care providers and educators. Infants and toddlers – young children, are the most vulnerable segment of each society and they are at highest risk for exposures to trauma, injury, morbidity and mortality.

Mothers are the cornerstone of each society and thus their health and well-being has fundamental impact on the health of their babies, families and the communities in which they live. Maternal mental health/perinatal mental health is defined by the World Health Organization as the mother's ability to identify and cope with stresses of motherhood as well as other responsibilities she carries as a contributing member of her community. Maternal mental health disorders are identified as major challenges for the health and well-being of the mother and the baby's developmental outcome.

This brief attempts to explain the relationship between maternal mental health and prenatal/perinatal health and well-being of the baby, consequences of challenging maternal mental health determinants and to identify useful early interventions that have positive outcome on maternal and pre/perinatal developmental health of the baby and mother-infant healthy relationship.

Keywords: Integrated health services; Prenatal; Perinatal/Maternal health; Global health

Perspective

Concept of health here denotes full health, with multiple determinants including healthy neurobiological, bio behavioural regulatory system, somatosensory integration and processing system, mental, emotional, psychosocial and neuro relational system and cortical, cognitive/intellectual system. This concept of health is developing and shifting within the ecological contexts of genetic and epigenetic domains as the individual child grows.

Given the myriad of factors impacting prenatal health [1-3] strengthening health care delivery systems is essential if we intend to improve maternal, prenatal and child health delivery and quality outcomes for our children in the world.

The likelihood for poor health outcome for young children multiplies with each added risk factor [4]. This list although inclusive, by no means is exhaustive or complete.

Genetic and epigenetic factors directly impact the foetal growth and development as well as infant morbidity and mortality rate. Several risk factors were identified by Kazura, Kidanto, and Massawe

[5] influencing neonatal health and morbidity, such as gestation age and birth complications. In their 2002 report, Wardlow and Kessel [6] listed some risk factors for a healthy pregnancy, including malnutrition, obesity, age at pregnancy, lifestyle, exposure to sexually transmitted disease and poverty.

Perinatal/maternal health has direct impact on the developing foetus and the newborn in various manners [7,8] including but not limited to the presence of one or combinations of the following risk factors: prenatal exposure to illicit and legal substances, especially Prenatal Alcohol Exposure (PAE), causing a spectrum of devastating ailments, some of which are life lasting [9]. Poor physical health, nutrition and diet [10-14], mental illness [15-17], poverty and homelessness [18-20], maternal age and race, marital status, life-style, exposure to environmental hazards and pollutants, and poverty [5] are among other remarkable risk factors [21].

Poverty experienced in early years of life is considered nexus to a variety of negative outcomes such as delays in brain development [22,23]; negatively impacting cognitive [24]; speech and language, psychosocial, emotional, and relational domains, as well as behavioural

problems [25-27]; lack of social skills [25,28]; disorganized child-parent relationships, child maltreatment [29,30]; educational and learning difficulties [31,32]; and homelessness [33].

Young children living without permanent/long-term placement to call home are at the highest risk of any other age group for a number of stressors. Reports by McCoy-Roth, Mackintosh and Murphey [34], showed increasing level of homelessness among children under six years of age with the staggering added number of refugee and displaced young children [35].

Research findings emphasize significant influences of early childhood experiences on children's health and well-being [36-39]. Negative outcomes for children with early experiences of trauma and toxic stress similar to those occurring while homeless, are multidimensional with devastating consequences for these children, some of which include neuro-physical, psycho-social-emotional, neuro-relational and cognitive development, and behavioural problems [27-29]; lack of sense of safety and security due to their living situations; inability to make a lasting relationship with significant people in their life such as school-mates, peers, and various care providers in their community [40-42]; higher likelihood to have emotional and behavioural difficulties [43-45]; separation from family and placement in foster care [46,47]; hunger, poor nutrition and physical health [11,12].

To improve prenatal, antenatal and maternal/perinatal health along the spectrum to a healthy motherhood and childhood, three major components of health promotion, prevention of disorders and health disparities, as well as ecologically informed intervention through coordinated actions – locally and globally must take place. The coordinated efforts of interdisciplinary team in all levels of service delivery must be considered to help and support the families with young children and expecting parents [48,49].

To reach such a goal, variety of formats have been introduced around the world by strengthening care and quality of antenatal services, by applying an integrated service delivery system, to support healthy prenatal/pregnancy and perinatal/motherhood periods to benefit two generations of mothers and babies. For example are medical homes [50], community centres, specialized centres such as birth centres, diagnostic testing, monitoring and evaluation centres, public health/mental health clinics or hospitals.

The new framework of a one-stop, integrated service delivery centre, which equates mutual respect among the professionals and Para-professionals serving each family of pregnant mother and the baby, with the goal to improve the health and well-being of families in the community, providing continuity of care for the child-parent dyad, and having the capacity to provide prenatal, perinatal and postnatal care in the community, which is different from the medical home with medicalization of the health concept. In this framework, care-providers promote healthy behaviors for the expecting parents, prevent future harm to the families in the community they serve using these techniques and methods: (a) considering health a combination of neurophysiological and neuro-relational, psychosocial, regulatory, somatosensory, and cortical development; (b) the interdisciplinary team of professionals and Para-professionals supporting and serving each family in their community share the knowledge and the information among themselves with equal regards

for each other's expertise, and their team-based decision making on behalf of the child includes the caregivers/expecting parent(s) in each family; (c) educating the expecting mothers and those around her of the risk factors and their short/long-term impacts on the baby and baby's developmental domains, on the mother, mothering capacity and child-mother relationships; (d) teaching the expecting mothers and the community at large on the significant benefits of safe, nurturing, supportive, reliable and predictable maternal care, home and the community essential for the healthy prenatal, perinatal and postnatal growth and development of each and every human baby; (e) becoming aware and discuss stigma, discrimination, customs and traditions and existing legal barriers violating human rights of women and young children for any reason, including but not limited to the access to equal healthcare, knowledge and education; (f) reaching the unreachable – the homeless pregnant mothers, babies and young children – the most vulnerable and neediest amongst us providing time-sensitive services; (g) developing emergency-response capability and be prepared for environmentally known risk factors, natural or man-made; (h) providing ecologically fit and appropriate scientifically proven or promising interventions with follow up and home visitations, individualized for each family; (i) becoming a safety net for women and children victimized by violence at home and/or community, providing support, and need-based access to resources needed; (j) strengthening priorities by providing leadership in the community on comprehensive services including health promotion, disease prevention and ecologically based, appropriate prenatal, perinatal and postnatal intervention; (k) leading productive health and education for safe alternatives and healthy childhood; (l) offering benefits from state of the arts research and advance scientific knowledge to improve the access and quality of the existing services; (m) becoming aware of the available and accessible services in the larger community of service providers and global resources and partnerships to benefit those they serve.

Numerous documentations by researchers and social scientists have identified the significant role of the early childhood mental health professional as the team members serving the mothers and their babies due to their education, training, expertise, knowledge and experience in providing needed multi-level and comprehensive care for young children and their caregivers from early diagnosis, assessment and evaluation, advocacy for health promotion, prevention and treatment intervention modalities. Through research and data gathering they can also further the field of prenatal and perinatal mental health representation in policy making on behalf of the youngest and the most vulnerable among us [51-53].

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