DOI: https://doi.org/10.4038/sljpm.v5i1.77

SUPPLEMENT

Summary Proceedings of the 22nd Annual Sessions of the Perinatal Society of Sri Lanka 2023

EARLY DIAGNOSIS OF LETHAL CONGENITAL ABNORMALITIES

Based on Panel Discussion II: Early diagnosis of lethal congenital abnormalities at the 22nd Annual Scientific Congress of the Perinatal Society of Sri Lanka.

Panelists:

- *Professor Tiran Dias (Obstetrician and Gynaecologists)*
- *Dr. Nishani Lucas (Consultant Neonatologist) Senior Lecturer in the Department of Paediatrics, Faculty of Medicine, University of Colombo*
- *Dr. Chithramalee de Silva (Director of Maternal and child health, Family Health Burrau, at Ministry of Health Sri Lanka)*

Introduction

Lethal congenital anomalies are devastating birth defects that are tragically incompatible with sustaining life. Infants diagnosed with these anomalies often endure profound pain and suffering, while their families are left to grapple with immense emotional and financial hardships. At the same time, the Sri Lanka healthcare sector is constrained in its ability to provide optimal care to both these children and their caregivers.

Prenatal diagnosis of lethal anomalies plays a pivotal role in preparing for the birth of newborns with complex needs, but its effectiveness has been hampered by a shortage of trained specialists, proper scan machines and time constraints within the government health sector. Alternatively, prenatal diagnosis of lethal anomalies without comprehensive care options increases the burden on care givers as well as healthcare staff. This can lead to transfer of neonates to distant tertiary care neonatal centers, driven by unrealistic parental expectations and combined with the lack of options for care for fetuses and newborns this places an undue financial and emotional burden on parents hampering their quality of life. Moreover, the absence of legislation regarding treatment limitations or withdrawal in Sri Lanka leads to prolonged bed occupancy in intensive care units (ICU) by these neonates, without overall improvement in outcomes. A combined effect is an increased neonatal mortality rate due to death of babies born with lethal congenital anomalies and healthy babies denied critical care facilities held up by babies with lethal anomalies who will invariably die later.

The current scenario poses a significant burden on parents, healthcare resources, and neonatal care outcomes, which necessitates comprehensive reforms.

Problems

1. Non uniform access to standard pre-natal anomaly scans
   Lack of availability of obstetricians trained in fetal medicine, substandard obstetric scan machines and time constraints in busy government health care setup has led to inequities in access to pre-natal anomaly scans.

2. Lack of management options following diagnosis of prenatal congenital anomalies.
   Currently in Sri Lanka, medical termination of pregnancy (MTP) is only legal when the mother's life is in danger. As such lethal congenital anomalies of the fetus is not an indication for

termination. This means that families who have received a prenatal diagnosis of a lethal congenital anomaly h have no choice but to continue the pregnancy to term. Furthermore, there are no specialized palliative care services for neonates diagnosed with lethal congenital anomalies.

3. Financial and Emotional Burden on Parents
   Due to the legal situation mothers are forced to carry the pregnancy to term and give birth to a baby who will die shortly after birth. Often these neonates are transferred far from home to tertiary care neonatal centers. This causes an undue financial and emotional burden on families already grappling with the heartbreaking diagnosis.

4. Occupancy of ICU Beds and critical care services.
   Following birth, babies with lethal congenital anomalies occupy precious ICU beds and other critical care services for extended periods, despite the absence of improvements in overall outcomes. This is due to a lack of laws and regulations on the limitation or withdrawal of treatment in Sri Lanka. This in turn limits resources for babies with treatable conditions and excellent long-term outcomes.

Proposed Solutions

1. Enhance accessibility to high-quality anomaly scans
   Promote specialized fetal medicine training for postgraduate trainees. invest in obtaining high quality obstetric scan machines and equitable distribution of them and ensure accessibility to anomaly scans at government sector institutes for all pregnant women to allow for early detection.

2. Legalization of MTP for Lethal Congenital Anomalies
   Advocate for the legalization of medical termination of pregnancy in cases of lethal congenital anomalies to provide parents with a compassionate and humane choice, advocate for community support for MTP and establish clear guidelines and criteria for MTP, involving bioethics boards composed of multiple professionals to ensure ethical decision-making.

3. Development of Holistic Palliative Care Services for babies born with lethal congenital anomalies
   Establish holistic palliative care services including comfort care and educate medical professionals regarding availability of such palliative services.

4. Care for Caregivers
   Establish care services for caregivers including mental health support, respite care and financial assistance programs.

Conclusion

Addressing the issues surrounding lethal congenital anomalies in Sri Lanka is a pressing matter that requires comprehensive reform especially given the limited health budget in Sri Lanka currently. Legalizing medical termination of pregnancy, expanding anomaly scans, and developing palliative care services and holistic care for caregivers are crucial steps to reduce the burdens on parents, optimize healthcare resources, and ensure compassionate care for affected babies. These measures will ultimately lead to improved neonatal care outcomes and a reduction in neonatal mortality rates.

IMPROVING NEONATAL OUTCOMES WITH ADVANCED TECHNOLOGY

Based on Panel Discussion I: Improving Neonatal Outcomes with Advanced Technology at the 22nd Annual Scientific Congress of the Perinatal Society of Sri Lanka.

Panelists*:*

- *Dr. Dilani Dehigama (Consultant Neonatalogist), Teaching Hospital Mahamodara*
- *Dr. Saman Kumara (Consultant Neonatalogist), Castle Street Hospital for Women*
- *Dr. Nalin Gamaathige (Consultant Neonatalogist), De Soyza Hospital for Women*
- *Dr. Amit Gupta (Consultant Neonatalogist), John Radcliffe Hospital in Oxford, UK*

Presentations were done by Dr. Dilani Dehigama, Dr. Saman Kumara and Dr. Nalin Gamaathige while Dr. Amit Gupta shared his views and experiences on all the discussed topics.

Three clinical interventions for the management of preterm newborns were discussed by the panelists, where the technology used in Sri Lanka is compared with similar clinical scenarios in the United Kingdom (UK).

The key interventions discussed were:

1. Surfactant treatment- current practice and future trends
2. Therapeutic cooling for perinatal hypoxia and sudden unexpected postnatal collapse
3. Nitric Oxide therapy for preterm newborns with PPHN (Persistent pulmonary hypertension)

Dr. Dilani Dehigama was the first speaker of the discussion, and her topic was based on the current practice and future trends of surfactant treatment.

A few of the salient points she emphasized were:

1. Importance of exogenous surfactant in the reduction of the risk of pneumothorax and neonatal death in infants with respiratory distress syndrome.
2. Surfactant administration as a way to minimize mechanical ventilation times.
3. Recommended modes of Surfactant delivery - Non-invasive mode over invasive mode.
4. Doses of surfactant - High dose against low dose.
5. Multiple dosing of surfactant and the questionable additional benefit.
6. Other indications of surfactant therapy such as meconium aspiration and congenital pneumonia.

During the discussion following the presentation,

Dr. Amit Gupta mentioned that the current volume of surfactant being used is safe but emphasized that if it is administered to the wrong side of the lung, it might lead to collapse.

He added that small doses are preferred, the second dose will be less used, and multiple dosing has no additional benefit. However, if multiple doses of surfactant are given, the gap between the first and second doses is usually around 8 hours, which is also practiced in the UK.

Two approaches to Surfactant replacement were discussed. Brief intubation combined with surfactant administration followed by extubating (INSURE) was compared with more recently introduced less invasive surfactant administration (LISA). The cost of using LISA is around 10,000 Indian rupees. However, LISA is not available in Sri Lanka.

The future use of synthetic surfactants and their cost-benefits were discussed, and it was emphasized that using surfactants on all patients with respiratory distress won't be advantageous.
The next speaker was Dr. Saman Kumar, who spoke on Therapeutic cooling for perinatal hypoxia and sudden unexpected postnatal collapse.

The key points by the speaker were;

1. The effectiveness of therapeutic hypothermia in treating mild to moderate Hypoxic Ischaemic Encephalopathy in newborns.
2. The survival of apoptosis-prone cells due to modification by therapeutic hypothermia
3. The target temperature for therapeutic hypothermia
4. Using therapeutic cooling beyond widely accepted criteria depending on the Clinician's judgment, for i.e., using cooling after day one
5. Common unclear areas include therapeutic cooling for babies born at the margin of the defined maturity and cooling for babies with severe PPHN or coagulation defects.

During the discussion,

Prof. Amit Gupta mentioned that cooling worsens the condition of babies with Pulmonary Hypertension.

Dr. Nalin Gamaathige has questioned whether to stop cooling once the condition improves or wait for 72 hours. Prof. Amit Gupta was in favor of waiting, provided that the baby is being continuously monitored.

Nitric oxide (NO) therapy for preterm newborns with PPHN was the topic taken by the final speaker, Dr. Nalin Gamaathige. A case scenario of a preterm baby who received nitric oxide therapy during the hospital stay was presented, and a discussion was held on that.

The key points discussed were,

1. Place of nitric oxide use in pre-term babies -
   Improved oxygenation with NO and its impact on term babies who were suspected to have lung hypoplasia is well understood in the available literature. As per the guideline, NO therapy can also be used in selected pre-term babies on suspicion of lung hypoplasia.
2. Current practice in the UK and issues identified.
   In Oxford, UK, the use of NO therapy for very preterm babies has been carried out for many years. Ideally, an echocardiogram should be done on these babies before the commencement of NO therapy.
   For 9 out of 10 babies, they are conducting an echocardiogram. However, when the baby is very sick with low saturation and on an oscillator or when the cardiologist is not available can start on NO therapy without an echocardiogram upon the decision made on clinical grounds. But try to get it done soon.
   NO therapy is commonly used in the UK, and a graph from 2013 -2021 was shown by Dr. Amith Gupta, which showed the use of NO therapy in his center at Oxford. Following a thorough investigation of cases where NO therapy was used, they found that most of the babies were switched off from NO early. However, the problem identified was not switching off NO when there is no benefit.

   Thus, Dr. Gupta recommended starting with the NO if lung hypoplasia is suspected and if the baby is not improving while receiving NO to take it off.

Compiled by

Dr. Casthuri Kandasamy
Dr. Morina Fernando

CHALLENGES IN NUTRITION SUPPORT IN PRETERM NEONATES

Based on Plenary 1: Challenges faced in pre-term nutrition at the 22nd Annual Scientific Congress of the Perinatal Society of Sri Lanka.

Conducted by Dr. Manoj V C (India)

Challenges faced in pre-term nutrition are an important aspect at present, given that nutrition plays a pivotal role in ensuring the well-being of a newborn. The pre-term neonate can be defined as a baby born alive before 37 weeks of pregnancy is completed (1). Based on the plenary in the sessions conducted by the Perinatal Society of Sri Lanka, Dr. V C Manoj stated that the three main nutrition challenges in a pre-term neonate are the neonate being too sick to feed, sepsis, and mother's milk being unavailable. The most common solutions that are generally carried out are to nurse and keep the baby Nil Per Oral (NPO) and commence total parenteral nutrition, even if asymptomatic, start antibiotics to prevent sepsis, and start formula feeds if breast milk is unavailable.

Enteral feedings have been incorrectly withheld due to low APGAR scores, the use of umbilical catheters, apnea and bradycardia, mechanical ventilation, CPAP, vasoactive drugs, and total parental nutrition, as Dr. V C Manoj mentioned. Enteral feeding, however, must not be avoided. Dr. Elsie Widdowson identified that the suckled pig's duodenum gains 42% of its weight in the first 24 hours after birth. This fact can also be taken in the context of neonates, and minimal enteral nutrition (MEN) should be promoted from birth. Mucosal growth and development depend on trophic feeds such as MEN, not parenteral nutrition (2).

It has been proved that minimal enteral nutrition brings about improved feeding tolerance and growth, less requirement for phototherapy, decreased cholestasis, decreased osteopenia, contributes to gastrointestinal trophic hormone surges, improved motility, and no added increase in complications (eg:- NEC) (2). In fact, the factors influencing abnormal intestinal bacterial colonization in preterm neonates are the hospital environment, particularly non-human milk feeding within that environment, antibiotic therapy, and caesarian delivery (3).

Another common misconception is that preterm neonates require antibiotics; the justification for this is that the preterm neonate has an immature immune system, preterm labor or delivery may have been caused by infection in the mother, immaturity-related respiratory distress cannot be readily distinguished from infectious pneumonia and under the assumption that antibiotic use is safe. However, antibiotic use is unnecessary and may result in more harm than good as it may lead to antibiotic resistance (4).

Breast milk, or human mother's milk, is a substance so potent and dense in nutrition that it must be given to all neonates (5). As such, breast milk must always be promoted. We must keep in mind that all preterm infants do not require the NICU, not all mothers of NICU infants are the same, not all human milk is the same, and the nutritional needs of the preterm infant are variable.

Precision nutrition can be utilized in the management of such neonates. Precision Nutrition (PN) is an approach to developing comprehensive and dynamic nutritional recommendations based on individual variables, including genetics, microbiome, metabolic profile, health status, physical

activity, dietary pattern, food environment, and socioeconomic and psychosocial characteristics (6).

In addition to maintaining nutrition, particularly gut nutrition, mother skin-to-skin care contributes to a distinct microbial pattern and accelerated oral microbial repertoire maturity (7).

What is of critical importance is to ensure that the preterm infant obtains enteral feeds with human milk and skin-to-skin care to promote the child's well-being?

In a country such as Sri Lanka, where the majority follows breast milk commencement in the golden hour, preterm infancy should not be excluded (8). Our first contact healthcare team must be actively engaged in preterm infant management with enteral nutrition and the environment of the infant in mind. Whilst this is by and large followed by most neonatal care centers, we must ensure that the healthcare team is aware that antibiotics, nil per oral, and withholding human milk is not in the best interest of the neonate.

Compiled by:

Dr. Nimani de Lanerolle,
Dr. Sarasi Withana

MANAGING PAST CAESAREAN SECTIONS TO OPTIMISE PERINATAL OUTCOMES

Based on a Symposium I : Managing past Caesarean Sections to optimise perinatal outcomes at the 22nd Annual Academic Sessions of the Perinatal Society of Sri Lanka.

Panelists:

- *Dr. Chamila Ayyavoo, (India)*
- *Dr. Chandana Jayasundar (Consultant Obstetrician), De Soysa Hospital for Women*
- *Dr. U.D.P Ratnasiri (Consultant Obstetrician & Gynaecologist), Castle Street Hospital for Women*

1. Background

Globally, more than 1 in 5 (21%) of all deliveries currently take place via caesarean section. The so-called "caesarian on maternal request" and the non-medically indicated CS rates are both rising rapidly. Therefore, not all CS are being performed for medical reasons. These trends are projected to continue increasing over this current decade, where both unmet needs and overuse are expected to coexist with the projected global rate of 29% by 2030 (Angolile et al., 2023).

2. Immediate and late complications of caesarean section

Caesarean sections may be essential in situations such as prolonged or obstructed labour, foetal distress, or malpresentation. However, they can have risks, though, just like any surgery. These include the potential for heavy bleeding or infection, slower recovery times after childbirth, delays in establishing breastfeeding and skin-to-skin contact, and increased likelihood of complications in future pregnancies (WHO, 2021).

Injury to the uterine, urinary tract, and colon are among the intra-operative complications that can occur during a caesarean section, which increases the risks of this procedure (Stedman & Kline, 1988). Some major risks associated with CS for the mother include infection, haemorrhages, thrombophlebitis, venous thromboembolism, and amniotic fluid embolism.

The rate of major transfusions following delivery is on the rise. Prior caesarean delivery was shown to be one of the key risk variables that were present prior to birth (OR 4; 95% CI 3.1-6.0), while primary caesarean delivery (OR 3) is one of the risk factors present at the time of delivery (Thurn et al., 2019).

Infants born through caesarean section have an increased risk of hypoglycemia, breastfeeding difficulties, and respiratory distress (Karlstrom et al., 2013). Emerging research suggests that CS exposes newborns to a variety of hormonal, physical, microbiological, and medicinal exposures that may subtly change neonatal physiology. Reduced intestinal gut microbiota variety, altered immunological development, and a higher risk of allergy, atopy, and asthma are some of the short-term hazards of CS. Although there is a regularly documented link between CS use and higher incidences of late childhood obesity and asthma, the persistence of these concerns into later life is less thoroughly researched (Sandall et Al.,2018). Many clinicians perform planned CSs before 39 weeks of gestation. Such planned early birth could increase the risk of respiratory problems and hypoglycemia.

The risks of severe maternal morbidity associated with planned caesarean delivery are greater than those associated with planned vaginal delivery, despite the fact that the absolute difference is minor. Women thinking about having an elective caesarean delivery, as well as their doctors, should weigh these risks. (Liu et al., 2007).

The incidence of placenta previa increases with each subsequent cesarean delivery, from 1% with one prior cesarean delivery to 3% with three or more prior cesarean deliveries. Morbidity also increases. After three cesarean deliveries, the risk that a placenta previa will be complicated by placenta accreta is nearly 40% (Silver et al., 2006).

Due to adhesions between the anterior lower uterine section and the anterior abdominal wall, the caesarian scar may result in technical limitations for pelvic ultrasound. The scar from the caesarean delivery makes the patient more prone to a variety of unusual conditions. A "niche" in a caesarean scar is a tethering of the endometrium that might act as a reservoir for intermenstrual blood and fluid. Endometrial implants may form in the abdominal wall years after surgery, and intrauterine devices may be improperly positioned in the scar after a caesarean delivery. Additionally, caesarean scar ectopic pregnancy, retained products of conception, and placenta accreta are among the implantation anomalies to which these patients are more susceptible (Rodgers et al., 2012).

A higher risk of bowel obstruction (OR 2.92; CI 2.55-3.34), bowel obstruction surgery (OR 2.12; CI 1.70-2.65), incisional hernia (OR 2.71; CI 2.46-3.00), incisional hernia surgery (OR 3.35; CI 2.68-4.18), and abdominal pain (OR 1.41; CI 1.38-1.44) is linked to caesarean sections. The risk for these problems increased dramatically with smoking, obesity, and deliveries via multiple sections (Larsson et al.,2021). Obese women who undergo Caesarean sections are at higher risk for surgical wound complications, include haematomas, seromas, abscesses, dehiscence, and surgical site infections. (Słabuszewska et al., 2021).

There is no evidence that the risk of maternal or newborn morbidity or mortality has decreased as a result of CS, in addition to the numerous early and late consequences of the procedure. This raises serious concerns about the overuse of Caesarean sections.

3. Prevention of the burden of the primary section

The escalating global and Sri Lankan rates of Cesarean sections (LSCS), currently standing at around 40% in Sri Lanka, underscore a multifaceted issue. Contributing factors include increased use of intrapartum fetal monitoring, instances of labour induction failing progression, changes in obstetric training, legal ramifications shaping medical decisions, evolving societal expectations regarding childbirth outcomes, and an increased emphasis on maternal autonomy in decision-making. This surge in primary LSCS instances unavoidably engenders a parallel increase in repeat LSCS procedures. Regrettably, this gratuitous rise in Cesarean deliveries amplifies risks to both maternal and fetal well-being, including complications like abnormal placentation and obstetric haemorrhage. Furthermore, the strain on healthcare costs is undeniable. Addressing this trend necessitates a more balanced approach to childbirth that prioritises the health of mothers and infants while considering economic implications.

In addressing the high cesarean section rates in developing countries like Sri Lanka, implementing Robson's 10-group classification system has emerged as a promising strategy. However, the lack of information technology infrastructure in these regions has posed a significant challenge to effectively implementing and auditing this approach. A potential solution

lies in the form of a web app, Robsapp, developed by the university obstetric unit. Operating on smartphones and utilising a bring-your-own-device approach, this innovation holds the potential to streamline the classification process, significantly reducing the financial burden associated with implementing Robson's classification. Robsapp's versatility allows for a more targeted approach, enabling tailored solutions to address the specific factors contributing to high cesarean section rates in each category. Notably, a multi-centre study employing Robsapp has been completed, with findings set for publication shortly, promising insights and strategies to curb cesarean section rates and enhance maternal care effectively.

4. Why the fear of scar

The introduction of lower segment transverse incision for Caesarean section in 1926 has demonstrated a lower risk of uterine rupture compared to classical incision. The maternal mortality and morbidity historically linked to Caesarean section owing to sepsis and haemorrhage have decreased as a result of antibiotics and blood transfusions. Caesarean section rates have increased significantly as a result of this.

Following observational studies from the 1960s revealed that vaginal delivery was a reasonable option, giving birth after a Caesarean and had become a practice with little fear of rupture.
The benefits of vaginal delivery surpass those of caesarean delivery. However, in the past ten years, there have been fewer vaginal births following caesarean procedures due to concern over scar rupture. The fewest complications result from successful vaginal birth after caesarean delivery (VBAC). When a planned VBAC results in an emergency caesarean section, there is the greatest chance of unfavourable outcomes.

The probability of uterine rupture during spontaneous, planned VBAC is 1:200. With a VBAC, there is a very small (4:10,000) absolute risk of birth-related perinatal death, which is about the same as the probability of a nullip during labour. Although there is a slightly higher risk of neonatal respiratory morbidity before 39+0 weeks gestation, the risk of perinatal death with elective repeated caesarian section (ERCS) is also very low. The incidence of placenta praevia/accreta complicating subsequent pregnancies is slightly elevated in patients having ERCS. Future abdominal-pelvic surgeries could be complicated by pelvic adhesions. Absolute contraindications to vaginal birth are previous uterine rupture, previous classical caesarean section and major placenta praevia. Relative contraindications are previous T/J shaped incisions on the uterine angle extensions, significant uterine surgery, e.g., open myomectomy, previous B Lynch sutures, Multiple pregnancy, Breech presentation and Fetal macrosomia.

Symptoms and signs of scar dehiscence/rupture (NB scar dehiscence may be "silent") are persistent CTG abnormalities (the most frequent observation), Vaginal bleeding, Uterine scar tenderness, Pain between contractions, Cessation of contractions, Pain "breaking through" epidural analgesia or excessive epidural requirements, Maternal tachycardia, hypotension, shock, palpation of fetal parts outside the uterus and Haematuria.

Unfavourable maternal and perinatal outcomes of VBAC are linked to incorrect case selection, inadequate monitoring and intrapartum management of labour, a failure to recognise complications, hyperstimulation - improper use of oxytocics, and failure to intervene when it is required.

Conclusion

In conclusion, putting Robson's 10-group classification method into practice and encouraging vaginal birth after caesarean birth can help to reverse Sri Lanka's rising trend in caesarean sections. Further, to reduce caesarian sections performed at the mother's request, it is critical to teach parents about the risk of cesarean sections during the antenatal period.

Complied by

I.O.K.K. Kumudumalee Nanayakkara,
S.I. Liyanage,

OPTIMIZING INDUCTION OF LABOUR FOR BETTER NEONATAL OUTCOMES

Based on Symposium III: Optimizing induction of labour for better neonatal outcomes at the 22nd Annual Scientific Congress of the Perinatal Society of Sri Lanka.

Speakers:

- *Dr. Indunil Piyadigama (Consultant Obstetrician & Gynaecologist)*
- *Dr.Vijay Roach (Royal Australian and New Zealand College of Obstetrician & Gynaecologist)*
- *Prof. Mike Robson (Consultant Obstetrician), UK*

Induction of labour is artificially initiating the uterine contractions prior to the natural onset of labour using chemical or mechanical methods. The induction of labour (IOL) is usually recommended only if there is a medical indication after outweighing the risks and benefits for the fetus and the mother. As for all other medical interventions, IOL is associated with adverse clinical outcomes and IOL not only resulted in normal vaginal delivery but also ended up in instrumental deliveries and lower segment cesarian section (LSCS).

Sri Lanka is rated as the country having highest induction rate in Asia (35.5%) where 27.8% are without clear medical indication (Lazzerini *et al.*, 2018). One of the main reasons for this high rate is not having clear protocol and guideline developed based on evidence for Sri Lanka. One guideline was published in 2014 which is not practicing in routine clinical practice. Even though there are several guidelines at an international level there is no consensus in our setting to practice one guideline. World Health Organization (WHO), the National Institute for Health and Care Excellence (NICE), American College of Obstetricians and Gynaecologists (ACOG), the Society of Obstetricians and Gynaecologists of Canada (SOGC), the Federation of Obstetric and Gynaecological Socie-ties of India (FOGSI) and Queensland Health are the most recent international guidelines widely followed in the world. Choice and the attitude of the obstetrician and maternal knowledge and demand play major roles in decision making in the current situation in the country.

Having ultrasound scan within the first trimester to accurately date the pregnancy is essential to prevent unnecessary IOL due to wrong period of amenorrhea. Maternal counselling needs to be considered as a priority to minimize the number of unnecessary LSCS as most of the mothers' demand LSCS despite IOL (Piyadigama I.).

Higher perinatal morbidity and mortality are associated with postdate pregnancies. According to a systematic review done by Middleton et al in 2018 comparing 30 trials, IOL will reduce perinatal mortality if there are clear protocols for IOL and it will further decrease LSCS rate compared to waiting for normal vaginal delivery postdates. Reduction of intensive care admissions and improved APGAR score also evident in the study.

When developing a guideline, need to consider several factors. One main factor is the best time for IOL. There are new evidence suggesting induction as early as 37 weeks rather than waiting up to 41 weeks improve neonatal outcomes. (Middleton, Shepherd and Crowther, 2018)

There are pharmacological and non-pharmacological methods of induction. To decide on what method to be used, there

should be evidence of clinical effectiveness as well as cost effectiveness. Duration of hospital stay on different methods, and cost of the intervention need to be considered. Complication rates of different methods, and availability of monitoring facilities are other main factors that should be taken into account when developing a guideline and a protocol (Vijay Roach)

Lack of strong generated evidence on best time for IOL, and maternal and perinatal complications related IOL such as post-partum hemorrhage, length of hospital stay, birth trauma rates, impact on breast feeding, postpartum depression and child development are key challenges encountered in developing guidelines and promote evidence-based decision making.

Not only availability of guideline will regularize the process but need auditing system and supervisions. If we develop standard protocol and a guideline for IOL, we will be able to use the guideline as a tool for clinical auditing which will promote rational decision making.

Following development of guideline need to consider capacity building of all categories of health staff to adapt the guidelines to the Sri Lankan context. Intrapartum monitoring of mother and fetal well-being and documentation, standard protocol to follow in management for different indications need to be considered. All the stakeholders should be involved in developing guidelines to reach consensus and to sustain the process.

Compiled by

Dr. Chiranthi Dhanasinghe,
Dr. Dineshan Ranasinghe

FAMILY CENTERED CARE OF A SICK NEWBORN

Based on Symposium IV: Family centered care of a sick newborn at the 22nd Annual Scientific Congress of the Perinatal Society of Sri Lanka.

Speakers:

- *Dr. Sathika Amarasekara (Acting Consultant Neonatologist, Ministry of Health)*
- *Dr. Sandya Doluweera (Consultant Paediatrician), Castle Street Hospital for Women*
- *Dr. Nimesha Gamhewage (Consultant Neonatologist & Senior Lecturer, University of Sri Jayewardenepura)*

The Annual Conference of the Perinatal Society of Sri Lanka -2023, played a vital role in advancing knowledge and best practices, fostering collaboration among healthcare professionals, ultimately contributing to improved health outcomes for newborns and maternal care in the country and region. Among the many areas discussed at the forum, family-centered care of a sick newborn was discussed in a symposium to bring about how it is crucial as it promotes emotional support and active involvement of parents, leading to better outcomes and a more positive healthcare experience for the newborn and family. This symposium was conducted by a group of experts in newborn care, including neonatologists and paediatricians.

Family-centered care is an approach to healthcare that recognizes the family as an integral part of a child's care team and involves them in decision-making and the overall care process. It was discussed how for successful implementation of the Family-centered care, three key areas were to be considered, namely; Parental support, Staff support, and Adaptive NICU policies.

It was highlighted how parents should be supported to engage in developmentally appropriate care by ensuring consistency of their presence for their baby whenever possible, supporting to understand the behavioural communication of their baby to respond to the baby's needs, providing supportive handling for their baby, collaborating with NICU staff to minimise their baby's stress and pain, and optimising their baby's nutrition with breastmilk and breastfeeding whenever possible.

The aspect of supporting staff in the delivery of family-centered care for sick newborns was shown to be vital to ensure the well-being of both the healthcare providers and the families they serve. An appropriate and pleasant reception for families should be partnered with the admission of each baby to NICU including introductory messages to parents in primary language, providing knowledge on hand hygiene technique, and providing unlimited information and access to the baby. Staff should be educated on principles of implementing FCC and proper, personalised, and understandable communication should be maintained within parents and staff for better implementation.

Discussing on NICU policies, they were to be reoriented in a way that parents were part of the team and not as visitors, clear policies on the family support system, and how these support measures should be started whenever maternal or foetal conditions and diagnoses were identified which could lead to an NICU stay. Also, that palliative care policy, discharge planning, and quality improvement measures should be included in the policy.

As the next component of the symposium, Kangaroo Mother Care (KMC) was

discussed and how it provides great benefits to babies, mothers, and other family members. Low awareness of KMC, issues with the environment, and fear of hurting the infant were identified as some of the barriers. It was explored how KMC can be implemented through increasing maternal awareness during antenatal and postnatal period through IEC materials, providing a supportive environment, emotional support, and improving workplace culture through using technology, clear guidelines, and proper communication and how proper followup at the community level was essential. Policy makers were urged to focus on healthcare service quality improvement, sustainable measures, and good leadership and governance.

The final topic in the symposium was handing over the care back to the community. Where the experts exchange views on how shared care for newborns involves a collaborative approach between healthcare providers in both the hospital and community settings to ensure comprehensive and seamless care for newborns and their families and how this approach aims to transition newborns from the hospital to home while maintaining continuity of care. It was further discussed how this is a more patient centered concept with more accessibility, how it will help economically by reducing the resources utilized in the hospital, and how well developed public health system in Sri Lanka with trained grass root level staff and well organized domiciliary care system will ensure the early detection of failure to thrive, developmental disorders, and other new concerns. It was also highlighted that ensuring the partnership with the public and curative health sector, proper followup, and training of staff will help to improve the shared care while managing the baby in the community.

This symposium, among others, served as a platform for the exchange of cutting-edge research and expertise, driving advancements in perinatal and maternal healthcare.

Compiled by

Dr. Dakshila Galappatti,
Dr. Aarthirian

GOVERNANCE, QUALITY OF CARE, AND PARENTAL UNDERSTANDING IN SRI LANKA

Based on Interactive Session: Governance, Quality of Care, and Parental Understanding at the 22nd Annual Scientific Congress of the Perinatal Society of Sri Lanka.

Panelists:

- *Dr. Amit Gupta (Consultant Neonatologist, John Radcliffe Hospital, Oxford, UK)*
- *Dr. Micky Chopra (UK)*
- *Surender Bisht (India)*
- *Dr. Deepika Atygalle (Senior Health Specialist, World Bank, Colombo)*
- *Dr. Susie Perera (Consultant Community Physician)*
- *Dr. Surantha Perera (Consultant Paediatrician, Base Hospital, Panadura)*

Introduction:

Sri Lanka's healthcare system has made significant progress over the years, but there remain critical challenges in terms of governance, the quality of care, and parental understanding, especially in the context of perinatal health. This has specially been important given the current socio-economic situation in Sri Lanka. To address these challenges and improve healthcare outcomes for the people of Sri Lanka many proactive steps will need to be taken in a timely manner.

Identified Problems

1. **Lack of Accountability:** While the health sector is undergoing many crises simultaneously, the lack of accountability has hampered attempts to deal with issues in a concrete manner.
2. **Failing to address health sector issues using an evidence-based approach:** Many health sector issues can be anticipated or solved by approaching it in an evidence-based manner using a data driven approach.
3. **Lack of Community Involvement:** An unenthusiastic community involvement on health issues due to many reasons is impeding the resolution of these issues.
4. **Over-reliance on Incentives:** People have a general tendency to be over-reliant on temporary incentives for quality of life improvement purposes which negate their long term benefits.

Proposed solutions

1. **Enhancing Accountability:**
   Implement accountability measures at all levels in the healthcare system to ensure quality healthcare services.
2. **Utilizing Big Data for Projections and Planning:**
   Use data-driven insights for long-term planning, resource allocation, and effective healthcare delivery and dissemination of such data for use by all health care professionals
3. **Community Involvement at All Stages:**
   Promote community involvement from problem identification to research, program implementation, and monitoring and evaluation and establish community health committees and

engage local leaders to facilitate participation.

4. **Advanced Crisis Planning:**
   Anticipate and plan for possible crises that can happen given Sri Lanka's current situation.
5. **Empowerment-Oriented Approach:**
   Promote empowerment-oriented approached rather than incentives-oriented approaches.
6. **Evaluation of 'Palak Melawa' Concept:**
   Evaluate the suitability of the 'Palak Melawa' or 'Parent Fair' concept in the Sri Lankan healthcare context and Pilot the concept in select regions and gather feedback to determine its effectiveness and potential for scale-up.

Conclusion

Improving governance, the quality of care, and parental understanding in Sri Lanka's healthcare system is essential for achieving better perinatal health outcomes. By addressing these issues and promoting community involvement, data-driven planning, crisis preparedness, and empowerment, Sri Lanka can pave the way for a more inclusive and resilient healthcare system that serves the needs of its citizens effectively.

Compiled by

Dr. N.M. Gamlath,
Dr. A.H.A. Kasuni Atapattu

MATERNAL WEIGHT GAIN AND ITS IMPLICATIONS FOR LBW REDUCTION

Based on Plenary Symposium: Maternal Weight Gain and its Implications for LBW reduction at the 22nd Annual Scientific Congress of the Perinatal Society of Sri Lanka

Speakers:

- *Prof. Athula Kaluarachchi (Professor of Obstetrics & Gynaecology & Consultant Obstetrician & Gynaecologist, University of Colombo)*
- *Prof. Sachith Mettananda (Professor of Paediatrics & Consultant Paediatrician, University of Kelaniya)*
- *Dr. Uditha Bulugahapitiya (Endocrinologist; Diabetologist)*

Maintaining appropriate maternal weight gain during pregnancy is of utmost importance due to its double-edged adverse effects on maternal and fetal wellbeing. This fact was acknowledged during the annual academic sessions of the Sri Lanka Perinatal Society, and a symposium titled "Maternal weight gain and its implications for LBW reduction".

Insufficient Maternal weight gain during pregnancy can result in Low Birth Weight (LBW) in the newborn; and LBW in turn is associated with a myriad of short- and long-term complications. Few of the short-term effects include increased risk of hypoxia and respiratory distress at birth, jaundice and infections, while new evidence has shed light on its long-term effects such as delayed motor and social development, and increased susceptibility to chronic non-communicable diseases such as obesity, high blood pressure and diabetes in later life.

Excessive maternal weight gain during pregnancy on the other hand adversely affects maternal health overtime. Inability to lose the weight gained with each pregnancy will accumulate over time, leading to increased prevalence of overweight and obese conditions among women in the reproductive age group. Overweight and obesity renders these women vulnerable to complications during subsequent pregnancies, as well as increase their likelihood of developing chronic non-communicable disease states.

Therefore, maintaining GWG within recommended amounts is vital to the health and wellbeing of both the mother and the baby. Despite its extremely sensitive nature, the importance of appropriate GWG has not been given due recognition. Most countries including Sri Lanka and even the World Health Organization currently refer to the Institute of Medicine's guidelines on weight gain during pregnancy (IOM, 2009). The World Health Organization has commenced a project in 2023 to develop guidelines on weight gain during pregnancy which are expected to be formulated by 2025.

Problems identified:

1. **Monitoring gestational weight gain and providing appropriate care services is not prioritized within the healthcare system.**
   Sri Lanka is equipped with a comprehensive antenatal care package which includes regular monitoring of gestational weight gain. However, at present it is merely limited to routine weight monitoring and recording, with minimal attempts at its interpretation. Maternal weight is measured at MOH field clinics and recorded on pregnancy records. Although the pregnancy record

is equipped with a chart to monitor weight gain during pregnancy, this is rarely utilized by the staff. Furthermore, there appears to be a service delivery gap in actively monitoring women who are susceptible to inadequate/ excessive GWG.

2. **Lack of guidelines and referral pathways for women with inadequate/ excessive gestational weight gain**
   Even though general guidelines exist for the care of malnourished pregnant women, there exists a need to formulate a set of guidelines that provide specific instructions on identifying, referring and managing a pregnant lady with inadequate or excessive weight gain.

3. **Lack of awareness among healthcare staff on the implications of excessive maternal weight gain.**
   Healthcare staff in general may tend to place greater importance on inadequate maternal weight gain when compared to excessive weight gain, possibly due to the effect of inadequate weight gain on the fetus. One reason for excessive maternal weight gain to be given less importance could be attributed to lack of awareness among healthcare staff, as its effects are longterm.

4. **Cultural beliefs that can contribute to excessive maternal weight gain.**
   Lack of awareness among pregnant women on the amount of weight that should be gained during pregnancy is another major problem that was identified. This coupled with various socio-cultural beliefs on how a pregnant lady should 'eat for two people' is likely to result in GWG that exceed recommendations.

5. **Lack of research surrounding Gestational Weight Gain**
   Despite the large research interest in LBW in Sri Lanka, studies on gestational weight gain, either as standalone studies or as studies that assess the effect of GWG on birthweight, are limited.

Solutions:

1. **Empowering active weight monitoring in pregnant women by healthcare providers**
   Empowering routine monitoring of weight of pregnant women at all contact points with the healthcare system, including but not limited to: MOH field clinics, government hospital obstetric clinics and the private sector, Empowering healthcare providers to mark recorded weights on the weight gain monitoring chart available in the pregnancy record (H-512) to allow easy interpretation of weight gain, Establishing guidelines which include care pathways on when, how and where to refer pregnant women with inadequate/excessive gestational weight gain patterns and Training of ground level healthcare staff to identify pregnant women with inadequate/ excessive GWG

2. **Increasing knowledge on maternal weight gain among healthcare workers**
   Conduction of awareness sessions to healthcare staff at district and ground level on the importance of appropriate GWG, ensuring that maternal weight gain is discussed during the in-service trainings at MOH level at least once a year, Presenting data on maternal weight gain (as inadequate, adequate or excessive) by each PHM at the MOH monthly conference and Incorporating the importance of maintaining appropriate GWG to the curricula of Public Health Midwife, Public Health Nursing Officer and Public Health Nursing Sister training programs

3. **Increasing knowledge of pregnant women on weight gain during pregnancy**
   Ensuring that gestational weight gain is discussed with pregnant women during the first trimester antenatal counselling session, developing an information

pamphlet on the importance of appropriate GWG which can be given to pregnant women at the booking visit. The pamphlet can be used as a means of:

- Increasing women's awareness on the recommended amount of weight gain based on her BMI
- Increasing women's awareness on the adverse effects of inadequate and excessive GWG
- Empowering pregnant women to routinely measure their weight (either at home, or at any point-of-contact with a healthcare provider where a weighing scale is available)
- Advising women on how they can achieve appropriate weight gain
- Addressing common myths and socio-cultural beliefs surrounding eating during pregnancy

4. **Conducting research on gestational weight gain and its implications of Low Birth Weight**
   Research on the GWG patterns in women and assessing it's associated with fetal birth weight will invariably shed light on further solutions.

Conclusion

It has been shown that excessive GWG is a significant contributor to overweight and obesity in women in later life, while inadequate GWG is a major contributor to Low Birth Weight in newborns, with almost 50% of its women being overweight/obese, and about 15% of its newborns having Low Birth Weight, Sri Lanka needs to act promptly to combat this double burden and Striving for GWG within the recommended amounts may be the key towards addressing both these problems.

Compiled by

Dr. H.M.C.D. Herath,
Dr. Disala Chandi Welgama

FOCUSING ON PARENT CRAFTING IN SRI LANKA

Based on Symposium V: Advocacy Brief Focusing on parent crafting in Sri Lanka at the 22nd Annual Scientific Congress of the Perinatal Society of Sri Lanka.

Speakers:

- *Dr. Mohamed Rishard (Obstetrician & Gynaecologist, De Soysa Hospital for Women)*
- *Dr. Surender Bisht, India*
- *Dr. Prabath Randombage (Consultant Obstetrician & Gynaecologist)*
- *Dr. Amila Chandrasiri (Consultant Community Physician)*

Introduction Parenting skills encompass a range of knowledge, behaviors, and attitudes that equip parents to provide nurturing, loving, and supportive care to their children. These skills form the foundation for healthy child development and well-being. Sri Lanka recognizes the vital role of parenting in shaping the future of its children and the nation as a whole. Effective parenting skills and support during the antenatal period are essential components of fostering healthier, happier families. Our aims are to emphasize the importance of developing parenting skills during the antenatal period, the benefits of reflective practices in parenting training, and the need for comprehensive reforms in Sri Lanka's approach to parenting education and support. The pioneering efforts of Dr. L.A.W. Sirisena in introducing parent crafting classes in 1996 at Castle Street Hospital for Women marked a significant milestone in promoting parenting skills in Sri Lanka. Since 2006, the Family Health Bureau has initiated antenatal education and parent craft

Challenges

Limited Parental Preparedness- Many parents lack the necessary knowledge and skills to navigate the challenges of parenthood, often resulting in anxiety and stress during pregnancy, childbirth, and then raising the children.

Insufficient Antenatal Education -Antenatal classes address waste areas of pregnancy and childbirth-related topics but often fall short in addressing crucial topics, leaving parents without comprehensive guidance on pregnancy stages, fetal development, partner involvement, cultural appropriateness, women's rights, and the importance of feedback and follow-up.

Varied Parental Backgrounds-Parents come from diverse cultural, ethnic, and socioeconomic backgrounds therefore, resources and strategies may not be compatible with every individual. Tailoring support to meet these diverse needs is a significant challenge

Benefits

Empowered Parents -When parents are empowered with essential skills, it means they have the knowledge and abilities they need to care for their children effectively. This includes understanding how to provide love, support, and nurturing care. When parents are equipped with these skills, they are better prepared to create a positive and loving environment for their children. This, in turn, helps in building healthier families and communities because children who receive nurturing and supportive care tend to grow up with a stronger sense of emotional well-being and are more likely to contribute positively to their communities.

Improved Child Well-being- Effective parenting plays a crucial role in a child's overall well-being. When parents understand how to support their child's emotional and cognitive development, they can help boost their child's self-esteem and encourage positive behavior. Additionally, proper nutritional care is vital for a child's physical health and growth. All of these factors contribute to a child's overall health and well-being. When children grow up with a strong sense of self-esteem, good behavior, and physical health, they are better equipped to become responsible citizens. This, in turn, has a positive impact on the progress and development of the nation as a whole.

Holistic Development- Providing comprehensive support to parents during the antenatal period is crucial parents. When expectant parents receive guidance and support, they are better prepared for the responsibilities of parenthood. This preparation can lead to healthier pregnancies, safer childbirth experiences, and better postnatal care. As a result, parents are more likely to raise children in a nurturing and supportive environment. This holistic approach to parenting not only benefits the immediate family but also has a positive impact on the nation's future. Children raised in such environments tend to grow up with a strong foundation for success and responsible citizenship, contributing positively to the nation's progress

Recommendations

Enhance Antenatal Education- Antenatal education plays a major role in improving parental education and preparing them for better parenthood. About 40% of the participants in a study considered that accepted that antenatal education shapes their parenthood (Fabian, Rådestad and Waldenström, 2005). Therefore, Addressing the existing gaps in antenatal classes by explaining concepts such as pregnancy stages, fetal development, partner involvement, cultural appropriateness, and women's rights will lead to better parenting through antenatal sessions. And also needs to promote a feedback mechanism and develop follow-up strategies to continuously improve the quality of antenatal care

Diverse Resources and Strategies- Utilizing multimedia resources such as videos, interactive apps, and online courses, to provide parents with engaging and appropriate content and population-based dissemination through mass media channels to reach a broad audience attention. Furthermore, it can incorporate parenting education into routine healthcare services such as routine antenatal classes. In addition to that foster family and group-based sessions will promote peer learning and support and can enhance digital outreach through websites, mobile apps, webinars, and virtual support groups as Adult educational techniques that are participatory and experiential in nature (Entsieh et al., 2016).

Reflective Writing for PHMs - Promote reflective writing among Public Health Midwives (PHMs) to enhance their parenting training skills to improve service delivery on parenting training skills. It will facilitate selfevaluation, experiential learning, empathy, and identification of areas for improvement. Therefore, the government can integrate reflective writing skills into PHM training and conduct some professional development programs to improve that skill among them. Also, it is important to facilitate peer support and feedback sessions to enrich the learning experience.

Workshops for Parental Empowerment - Implementing workshops that empower parents can lead to enhanced parenting skills. Such workshops can reduce the rate of cesarean sections, promote vaginal delivery, and enhance maternal and child bonding (Chen and Tan, 2019) and also cost saving by reducing LSCS according to the economic analysis (Sarmiento et al., 2023).

Conclusion

Empowering parents through careful antenatal education and reflective behaviors is more than just a personal development opportunity; but also, a path to a brighter future for Sri Lanka. By addressing the problems, embracing the benefits, and putting our suggestions into action, we can ensure that every parent in Sri Lanka has the knowledge, skills, and support they need to give their children the best possible start in life. We build stronger families and a stronger Sri Lanka by working together.

Compiled by

Dr. Upeksha Karawita,
Dr. Ayoma Nissanka

DIGITAL TRANSFORMATION AND PATIENT EMPOWERMENT IN PERINATAL CARE

Based on Symposium IV: Digital transformation and patient empowerment in perinatal care at the 22nd Annual Scientific Congress of the Perinatal Society of Sri Lanka.

Speakers:

- *Dr. Pandula Siribaddana (Senior Lecturer in Medical Education, Post Graduate Institute, Colombo)*
- *Dr. Kaushalya Kasturiaratchi (Consultant Community Physician, Family Health Bureau, Ministry of Health)*
- *Dr. Surantha Perera (Consultant Paeditricians, Base Hospital, Panadura)*

Nowadays, the delivery of health and healthcare across the globe is being revolutionized by artificial intelligence (AI) and digital health care, which includes a number of smart technologies. Telemedicine, remote tools, sensors and other smart technologies supported by big data might lower healthcare costs and significantly increase access, outcomes, and efficiency(1). However, nearly one third of the world's population does not have access to the internet and new technology, this will remain as a challenge for many countries in the world and Sri Lanka is no exception(2). Sri Lanka is considered as a low- middle income country, although it has well developed health care system. However, with economic instability and lack of resources, accessing AI and digital health care in health system of the country is questionable.

According to literature, a wave of health data and digital technologies, including telemedicine and AI, are eradicating long-held beliefs about global health and the availability and accessibility of healthcare(3). As a result, this idea was chosen as a focal point for World Health Day in 2023, with the goal of focusing on how precisely these creative improvements may be incorporated into the future healthcare system to improve access and benefit everyone(4).

New treatments, better patient outcomes, better and earlier diagnostics and prevention, earlier treatment, and improvements in the quality and efficiency of healthcare delivery as well as effective surveillance are just a few of the positive changes that health-focused technologies have the potential to make. By lowering overall healthcare spending and increasing efficiency, AI and digital health technologies can help to close the healthcare financing gap. Literature suggests that telemedicine, remote patient diagnosis, and treatment via telecommunications systems could ease the burden of patient care(5, 6). This is further proven by many countries in recent COVID 19 pandemic, as health needs and care were well managed by them through digital health technologies successfully all over the world(6,7). Therefore, advancements in healthcare through digital and AI enabled approaches for prevention, monitoring, consultation and treatment. It could dramatically boost healthcare access for individuals around the world with lowering healthcare costs. Further it will be beneficial in situations like disasters, pandemics and even in economic crisis for better provision of healthcare.

With the recent introduction of generative AI platforms like ChatGPT and Med-PaLM, the use of digital health technology is evolving quickly. However, use of AI and

digital health technologies in health care is having reasonable concerns. Availability of adequate underlying infrastructure including internet connectivity, human resources and digital technology devices will be the major challenge in proceeding with this new concept. Apart from that ethical concerns related to data sharing, confidentiality and data security will be required to handle carefully. Hence, a national policy on technical innovation for health care will be required to address these major concerns in a country.

With this back ground, possibility of going forward with AI and digital health for health care in Sri Lanka is doubtful. Although, Sri Lanka has well developed health care delivery system, it runs with limited resources. As country facing in an economic crisis, spending money for provision of infrastructure and human resource development to incorporate this new concept of AI and digital health will be a challenge. However, as this new concept will reduce healthcare cost, it has a direct benefit to the country. Data gathering and surveillance systems can be well improved with this technology enabling Family Health Bureau, Epidemiology unit and medical statistic units to do their work more efficiently. Although Sri Lanka, is a small island, still people in some parts of the country do not have easy access for health care. By incorporating this new concept, those people will get benefited and further it will reduce out of pocket expenditure for them. Public health staff as well as hospital staffs will motivate to their work efficiently with this new concept by minimizing work overload at fields, out patients' department and even in ward setup. With this background, although incorporating AI and digital healthcare is a challenge, it is worthwhile to consider its incorporation into health care delivery system of the country.

How a country can face the challenges in incorporation of AI and digital health care into health system? A thorough action plan with short-, medium-, and long-term objectives is needed to address the role that digital technology can play in enhancing access to and provision of healthcare. As supply chains and healthcare delivery are optimized, immediate action is required to encourage investment that fuels innovation in medication and treatment development. In the future, healthcare sector will need to standardize data utilization and applications to make various healthcare tools and systems work together. Longer term, the medical community must collaborate with decision-makers to develop a regulatory framework that encourages innovation across the board in the world healthcare system. Multi-sectoral alliances, such as those between providers of digital solutions, decision-makers, and interested parties like the civic sector and philanthropy, can aid in the rapid deployment of digital solutions at scale. Big data models, telemedicine, predictive medicine, wearable sensors, and a plethora of new platforms and apps may help to rethink how the world offers, maintains, and accesses health and healthcare in the future. For those with and without internet connections, a perfect storm of funding, innovation, and legislation is necessary to enhance access to high-quality healthcare globally. Hence, it would not be a dream for a new era of digital healthcare to Sri Lanka.

Bibliography:

1. Unsworth H, Wolfram V, Dillon B, Salmon M, Greaves F, Liu X, et al. Building an evidence standards framework for artificial intelligence-enabled digital health technologies. The Lancet Digital Health. 2022;4(4):e216-e7.
2. World Bank Group. World development report 2016: Digital dividends: World Bank Publications; 2016.
3. Bashshur RL, Shannon GW. History of telemedicine: evolution, context, and

transformation: Mary Ann Liebert, Inc., Publishers; 2009.

4. Sharma DB. “Health for All”: World Health Day Theme, 2023. Indian Journal of Ethics, Logic and Philosophy. 2023;1(2):60-6.
5. Najafi B, Mishra R. Harnessing digital health technologies to remotely manage diabetic foot syndrome: a narrative review. Medicina. 2021;57(4):377.
6. Tilahun B, Gashu KD, Mekonnen ZA, Endehabtu BF, Angaw DA. Mapping the role of digital health technologies in prevention and control of COVID-19 pandemic: review of the literature. Yearbook of medical informatics. 2021;30(01):026-37.
7. Celuppi IC, Lima GdS, Rossi E, Wazlawick RS, Dalmarco EM. An analysis of the development of digital health technologies to fight COVID-19 in Brazil and the world. Cadernos de Saúde Pública. 2021;37:e00243220.

Compiled by

Nuwan Darshana, Malathie Perera, Dilusha Athukorala

BRIDGING GAPS IN DISABILITY IN PREGNANCY

Based on Symposium VII: Bridging Gaps in Disability in Pregnancy at the 22nd Annual Scientific Congress of the Perinatal Society of Sri Lanka.

Speakers:

- *Ms. Niluka Gunawardana (Lecturer/Disability Specialist, University of Kelaniya)*
- *Dr. Dilini Vipulaguna (Consultant Community Paediatrician)*
- *Ms. Bernaddette Muyomi (Disability and Inclusion Specialist)*
- *Dr. Lahiru Perera (Humanitarian Project Manager UNFPA Sri Lanka)*

Overview

Individuals with disabilities have greater healthcare requirements, encompassing both general and disability-related needs. In Sri Lanka, women living with disabilities receive basic healthcare services, which is also common to normal individuals without any disability and lack access to specialized healthcare compatible with their diverse needs. Sametime, sexual and reproductive health (SRH) services are not easily accessible to women and young people with disabilities. Additionally, women and young people with disabilities may encounter financial, social, and psychological obstacles when attempting to access adequate SRH services.

Pregnant women with disabilities face various disparities such as physical inaccessibility, insufficient availability of appropriate medical equipment, and inadequate knowledge among healthcare providers on providing disability-inclusive care. Research has indicated that pregnant women with a disability have a higher risk of adverse maternal outcomes including complications during pregnancy and childbirth. Research conducted in other countries has revealed an elevated rate of abortions, miscarriage, cesarean section deliveries, and low contraceptive prevalence among disabled women. Discrimination and stigmatization due to the poor attitude of healthcare providers can further deteriorate access to quality healthcare services by pregnant women with disabilities.

Pregnant women with sensory impairment or intellectual disabilities face more communication barriers within healthcare settings due to inadequate access to information and, a lack of facilities for sign language interpreting.

N

umerous international human rights instruments, such as the United Nations Convention on the Rights of Persons with Disabilities (CRPD), stress the right of individuals with disabilities to access healthcare on equal terms with others. National policy on disability highlights the importance of improving the accessibility of disabled people to healthcare services.

Objectives:

To understand the associated factors that prevent the implementation of responsive care for pregnant women with disabilities and also to integrate responsive care for pregnant women with disabilities into routine antenatal care services

Methodology

Awareness was been conducted in the Annual Academic Sessions of the Perinatal Society of Sri Lanka on the 6th of September 2023. Around 250 healthcare professionals have participated encompassing curative and preventive sectors, global policy specialists, influential decisionmakers, and academics.

Key factors identified

Poor access to routine healthcare services for pregnant women with disabilities, only addressing physical accessibility but not social inclusivity with stigmatization and discrimination within the health system, Unavailability of a mechanism for cooperation and integration of the maternal care package with suites and cater the pregnant mothers with disabilities, Poorly activated policies and the unavailability of legal frameworks exist to protect the rights of disabled pregnant women in accessing healthcare.

Inadequate expertise and competencies among healthcare professionals and relevant stakeholders when it comes to delivering holistic and inclusive sexual and reproductive health services for pregnant women and young females with disabilities, Extended family support due to the cultural values in our society was a protective factor in terms of mothers with disabilities though due to the changes in the sociodemographic in the country, he situation in the current context is different and with the sudden changes in the environment including climate change as well as disasters, for women with disabilities in refugee camps adherence to the same routine services would be nonbeneficial to the pregnancies with disabilities.

Recommendations

Ensure that pregnant women with disabilities have access to routine healthcare services, addressing not only physical accessibility but also social inclusivity, free from stigma and discrimination, the importance of cooperation and integration of the maternal care package with suites and cater the mothers with disabilities and activate the policies and establishment of legal frameworks that exist to protect the rights of disabled pregnant women in accessing healthcare.

Empower healthcare professionals and relevant stakeholders to expand their capacities in delivering comprehensive and inclusive sexual and reproductive health services for pregnant women and young females with disabilities, Enhance the capacity of family members and the community to offer adequate physical and emotional support for pregnant mothers with disabilities, the collaboration of healthcare providers, disability organizations, policymakers, and advocacy groups to overcome the challenges encountered by pregnant women with disabilities and advocacy endeavors to raise awareness, shape policy reforms, and allocate resources to enhance healthcare services that are inclusive of individuals with disabilities.

Compiled by

K.M. Warnakulahewa,
A.M. Thirimawithana

Editorial Comment –

The Editors wish to note that in the instances where personal views have been expressed in these symposia, those are personal to the presenters and do not reflect any affiliation to any organization or government.