

Perinatal mental health in Sri Lanka, current status, programmes, gaps, and recommendations

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Introduction

Sri Lanka has earned acclaim in the Global South for its longstanding commitment to safeguarding maternal health [1]. With free public health services since the early 20th century, the country claims impressive maternal health indicators, including 97.1% antenatal care coverage, 99.9% institutional deliveries, over 75% domiciliary postpartum care coverage, and a maternal mortality ratio of around 30 per 100,000 live births over the past few years [2]. Sri Lanka is in the fourth stage of obstetric transition, where the underlying causes for maternal deaths have shifted from direct to indirect causes, such as heart disease in pregnancy and other medical disorders, including mental health problems [3].

Perinatal mental health encompasses a range of conditions, with anxiety and depression being the most prevalent. Additionally, prevalent presentations include postpartum blues, postpartum psychosis, and a spectrum of other psychotic disorders. Prenatal stress has been identified to operate through physiological and behavioural pathways, leading to potential cardiovascular, neuroendocrine, and immune-inflammatory mechanisms that impact pregnancy outcomes [4,5]. Mental health challenges pose a threat to maternal well-being and pregnancy outcomes, exerting intergenerational effects that influence the development and behavioural patterns of the offspring [6,7]. However, the new classification based on the stages of development of mental health disorders reflects an array of opportunities for preventing mental health problems [8].

Sri Lanka is a country that has prioritised maternal well-being since ancient times [9,10]. Pregnancy and expectant mothers were revered as symbols of prosperity, known as 'Gabbara Asiriya', deeply ingrained in the culture [11]. The micro-communities to which pregnant women belonged took great care of their physical and mental well-

being, following various traditions and rituals to provide mental relief during pregnancy and postpartum [11, 12]. Recent studies have shown that structural and cognitive social capital within rural Sri Lankas micro-communities promotes mental well-being during pregnancy [13,14]. Despite these historical practices, certain population groups in Sri Lanka are now at risk of facing mental health issues due to changes in socio-political and cultural contexts. Factors such as poverty, alcoholism, cultural trends leading to impulsive suicides, availability of pesticides, and the shift from extended to nuclear families have contributed to perinatal mental health becoming a significant public health problem [15-17]. In the light of the current circumstances in Sri Lanka, there exists an urgent demand for interventions that transcend traditional methodologies, to improve maternal mental health. In this article, we explore the current status, available programmes and gaps related to perinatal mental health in Sri Lanka.

Present status of perinatal mental health problems

Evidence on perinatal mental health is scanty in Sri Lanka. The few studies in limited study settings indicate varying degrees of perinatal anxiety and depression. Screening for mental health problems employs psychometrically validated instruments. Several tools, such as the Edinburgh Postpartum Depression Scale (EPDS) [15] and the Perinatal Anxiety Screening Scale (PASS) [16], are being validated in Sri Lanka. Community-based studies involving pregnant women of all three trimesters have reported positive EPDS scores for anxiety and depression of 16-16.2% in Anuradhapura [17, 18] and 7.5% in Galle [19]. Anxiety levels as high as 37.5% were reported in a hospital-based study in Colombo as measured by the PASS [16]. In the Rajarata pregnancy cohort (RaPCo) [20], 23.4% of pregnant women less than 13 weeks of gestation

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reported EPDS scores above the recommended thresholds. Evidence indicates that early pregnancy EPDS scores were predominantly contributed by anxiety [21]. In this study, adolescent pregnant females are reported to have significantly higher mean scores for the anxiety domain in EPDS [22]. However, only 14.4 % of pregnant women in the second trimester had high EPDS scores, with significantly lower scores for the anxiety domain. The studies assessing postpartum depression using EPDS have reported positive scores for postpartum women in different study settings. In Horana and Galle, the reported percentage was 7.1% [23] and 7.8-9.5% [24, 25], respectively at four weeks postpartum, while in Dankotuwa, it was 15.5% at ten days postpartum [25]. Another study across 18 districts showed a prevalence of 27% from two weeks to twelve months postpartum [26]. In Puttalam, the reported percentage was 32.1% [5]. The limited available data clearly shows a high prevalence of perinatal depression and anxiety needing urgent interventions, which should include an in-depth understanding of the problem. Studies on postpartum blues, psychosis, and other psychotic disorders during the perinatal period are scarce in Sri Lanka.

Maternal suicides and intentional self-harm (ISH)

Over the years, suicide has emerged as a significant cause of maternal mortality in Sri Lanka [27, 28]. National data indicates 25-30 maternal suicide resulting in a maternal suicide ratio of 12.1 per 100,000 live births in 2010 [29] with massive regional disparities [30]. An analysis carried out using the International Classification of Diseases for Maternal Mortality (ICD-MM) [31] shows that maternal suicides account for approximately 17-40% of all maternal deaths in the North Central Province [32]. While reported suicides represent just the tip of the iceberg, studies suggest that self-harm ideation affects approximately 5-8% of pregnant women, with 0.8% reporting ISH during pregnancy [33]. In a recent study, it was shown that the hospital surveillance system detected only 13% of maternal ISH incidents, showing a massive underestimation of the problem. In the present context of Sri Lanka, the estimate shows that out of 10,000 pregnancies, only single completed suicides highlight the visible aspect of the mental health burden. However, this masks a significantly larger problem, with over 100 cases of ISH, 800 instances of self-harm ideation, and 2300 women encountering diverse degrees of anxiety and depression during the initial stages of pregnancy.

Factors influencing perinatal mental health

Qualitative research conducted during early pregnancy shows an array of modifiable or preventable factors underpinning anxiety and depression. These factors include pregnancy-related issues like nausea and vomiting, unplanned and unwanted pregnancies, fear of miscarriage, and stress due to disrespectful maternity care

experiences [34]. Work-related stressors, medical conditions, and social challenges such as financial difficulties, lack of household support, and family conflicts also contribute to anxiety and depression [19]. Among adolescents, unwanted pregnancies remain a significant cause of psychological distress and anxiety [35, 36]. Additionally, a history of physical, emotional, or sexual abuse and exposure to smoking at home were identified as significant factors associated with early pregnancy mental health problems [37]. In the context of postpartum depression, risk factors encompass a history of mental health issues, advanced maternal age, more than four living children, maternal illnesses, and previous newborn deaths [24, 25]. Complex social issues deeply influence maternal suicides. The backdrop of structural social determinants such as poverty and poor education, a clustering of social isolation, lack of social support, poor marital cohesion, domestic violence, and alcohol use within the family environment are identified as root causes of maternal suicides [32].

Enhancing maternal mental health: current approaches and progress

Prevention of mental health problems

Addressing mental health issues during adolescence and pre-pregnancy is essential for mental well-being during pregnancy. Efforts have been made to strengthen the adolescent and youth friendly health services in Sri Lanka [38, 39], yet 22.4% of primigravida pregnant women are adolescents in rural areas showing that the programmes are still suboptimal. In addition, routine adolescent services do not comprehensively address mental health problems [22]. Female adolescents and youth report high rates of self-harm and suicides, necessitating more risk group-specific approaches to incorporate with existing services.

Several strategies have been adopted for risk factor identification at different stages of program delivery. Psychosocial and environmental risk factors are supposed to be identified at the commencement of pre-conceptional care with the discussions with the women by the public health midwife (PHM) and the Medical Officer of Health (MOH). Additionally, PHMs are tasked with recognising women facing social risk factors within their households during the antenatal domiciliary and clinic visits. Cultivating trust, the PHM pays extra care for vulnerable women providing emotional and informational support [40]. The National Maternal Mortality Surveillance System (NMMSS) identify risk factors for maternal suicide [27] where the Psychological Autopsy Tool for Maternal Suicides (PAMS) is being used to delve into the underlying factors [27]. Despite these efforts, implementing primary prevention strategies at the community level remains weak. Mind-body interventions, which have been experimentally tested and shown to be effective in reducing antenatal anxiety, depression, and stress [41], were also experimented

with [42, 43], showing promising results. However, these are limited to preliminary studies and not tested on a large scale.

Early detection, management, and follow-up

In Sri Lanka, the systematic assessment of mental health problems during routine antenatal care is not well-established. The PHMs are expected to inquire about mental health during home visits and clinic appointments and refer those with mental health issues to the MOH [39]. However, studies indicate that PHMs often lack the necessary knowledge and skills to identify and assist these women effectively, and there is a deficiency of clear, practical guidelines to aid PHMs in carrying out this responsibility [40]. As for the screening of postpartum depression, Sri Lanka's maternal care program has incorporated EPDS as a screening tool [44]. However, pragmatic issues can arise due to not coupling it with a clinical interview or not repeating administration in women with incidental causes before referral [45, 46]. The inclusion will offer a better yield if training and guidelines are provided to healthcare workers [47].

With the prevalent cultural stigma and lack of awareness of mental health problems in the community, referring and allowing women to seek help for mental health problems is challenging. Evidence indicates that only one-third of pregnant women are aware of depressive symptoms and are willing to seek help for maternal depression [48]. Human resources for mental health are grossly inadequate in Sri Lanka [49]. In addition, regional disparities of available services and workforce [50] further hinder the services creating an inequity. Though the attempts to improve the training of the mental health workforce [51] and re-development of mental health policies were carried out [52], Sri Lanka is yet to break the boundaries of different sub-disciplines and enter as a complete workforce to safeguard community mental health. Hence, even women opting to seek help would meet with difficulties within the patient journey due to financial constraints, time constraints, and transport in approaching available human resources [37].

The way forward

While the global effort towards advancing personalised medicine and stratifying mental health disorders for improved detection and management of perinatal mental health issues is underway, the situation in Sri Lanka differs. The existing research in the country primarily focuses on estimating prevalence and identifying risk factors. However, crucial evidence regarding effective screening methods, the impact of routine screening, and interventions tailored to the local context at the primary healthcare level is lacking. To build a robust foundation for program planning, it is imperative to incorporate the perspectives of the people, particularly given the low awareness, high stigma, and limited help-seeking

associated with perinatal mental health problems. Therefore, prioritising community engagement and involvement in research and programme planning is essential.

Considering the diverse cultural landscape, research efforts should encompass vulnerable populations and experiment with targeted, context-specific interventions using a multi-sectoral approach. Bridging the research gaps is essential to integrate evidence-based practices into healthcare systems. Within a well-established public health system for maternal care, an opportunity exists to integrate public and perinatal mental health services for more effective outcomes. We advocate the development of a primary healthcare workforce adept at screening, providing basic counseling, and offering mental health first-aid, along with appropriate referrals, to mitigate the adverse health effects of perinatal mental health issues.

Conflict of interest

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Author contributions

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