

The Role of Reproduction for the Future of Women's Health

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In Indonesia, there were 305 maternal deaths per 100,000 live births in 2015.¹ In 2020, this figure dropped to 189 per 100,000 live births². The World Health Organization (WHO) declared in 2015 that the maternal mortality rate must continue to decrease or be lowered to 105 per 100,000 live births to meet the Sustainable Development Goals (SDGs). This achievement was made possible by upgrades to the reproductive health system, as well as by the efficient allocation of infrastructure, medical personnel, and facilities. In the meantime, inadequate progress has been made in improving community nutrition, providing information and education on family planning and reproductive health, and maintaining clean water and sanitation. Consequently, to accomplish the SDGs and achieve this objective, health professionals and the community must play a positive role in women's reproduction.³

Several reproductive illnesses can impact women's future health, including Polycystic Ovary Syndrome (PCOS), the leading cause of infertility in women of reproductive age.^{4,5} Due to its global prevalence, affecting between 15 and 20 percent of women, PCOS poses a significant threat to women's future health.⁶ Several comorbid risk factors associated with PCOS include infertility, excessive body weight, hypertension, diabetes mellitus, and irregular menstrual periods.⁷ Currently, there is no conclusive explanation for the occurrence of PCOS. The most widely accepted theory attributes PCOS to luteinizing hormone (LH) hypersecretion.⁸ The pituitary gland releases more LH due to increased GnRH pulsation in the hypothalamus, leading to ovarian hyperandrogenism and ovulatory failure. Recent research has identified KNDy neurons (Kisspeptin/Neurokinin B/Dynorfin) as the source of GnRH pulsation in PCOS.⁹

Menstrual disorders, such as menorrhagia, metrorrhagia, oligomenorrhea, polymenorrhea, and primary amenorrhea, including Mayer-Kustner-V Rokintanski Syndrome (MRKH) and Testicular Feminization Syndrome (Androgen Insensitivity Syndrome), are commonly observed in women.^{4,5} Reproductive health is a crucial indicator, given the associations between menstrual cycle disorders (such as PCOS, Diminished Ovarian Reserve (DOR), and Primary Ovarian Insufficiency (POI)), hypothalamic dysfunction, and infertility. It is essential to thoroughly examine data related to menstrual cycle history, secondary sex characteristics, and detailed pregnancy history, as these factors significantly impact women's health in both the short term and long term. This influence extends to aspects such as cancer risk, bone loss, and metabolic disorders.¹⁰

Reproductive health is influenced by various socio-economic and demographic factors, including poverty, low levels of education, and challenges accessing healthcare in remote areas.¹¹ A study conducted in Laos revealed that limited reproductive health knowledge, lack of autonomy, and gender inequality were key contributors to elevated rates of child marriage and maternal mortality.¹² A study in Ujjain, Madhya Pradesh, India, states that factors that influence maternal and child health are low level of education of children and parents and employment status.¹³ Cultural and environmental factors significantly contribute to the elevated maternal death rate, with beliefs such as the idea that having numerous children brings good fortune playing a crucial role. In Nepal, a study revealed that the widespread occurrence of child marriage is driven by societal pressure to start a family at a young age and the limited autonomy granted to children. This implies that even if a child desires to marry early, they may lack the power to decline due to societal expectations and norms.¹⁴

Verbal abuse from pregnancy care providers and the embarrassment experienced by early-married women act as deterrents, making them unwilling to seek care.¹⁴ Additionally, reproductive health behavior is influenced by parental roles and psychological factors (e.g., the effects of parental divorce).¹⁵ Reduced maternal mortality, improved nutrition for children to prevent stunting, enhanced national health system, increased information and education about reproductive health, equitable access to healthcare, family planning, and clean water and sanitation are just a few of the SDGs that Indonesia has been striving to meet. By offering effective prenatal and delivery care, reproductive health education,

and actively supporting family planning, health professionals who specialize in reproductive health play a significant part in lowering the death rate for both mothers and children.³ The community can be better informed and educated to help achieve the Sustainable Development Goals (SDGs), which will lower rates of morbidity and death among mothers and neonates and improve the health of future generations of women.

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